



# **SCANCOMMANDER**

**User's Manual**

**Version 4.31f  
July 2006**

## Contents

1. Introduction (Version 4.31) .....	5
1.1 General remarks .....	5
1.2 Specifications and extras .....	6
1.3 Installation .....	6
2. Setup .....	7
2.1 Top menu .....	7
2.2 Lamp type .....	8
2.3 DMX output addresses .....	9
2.4 Movement direction on DMX mode .....	10
2.5 Initializing of stage .....	11
3. Direct access .....	13
3.1 Scan groups and brightness fader .....	13
3.2 Basic scan functions .....	14
3.2.1 Tuning with the encoder .....	14
3.2.2 Programming of presets .....	15
3.2.3 Playback of presets .....	16
3.3 Movements .....	18
3.3.1 Movement on direct DMX or on stage calculation .....	18
3.3.2 Changing the movement mode .....	19
3.3.3 Transforming memories to a new stage .....	20
3.3.4 Trackball and Mouse .....	21
3.3.5 Followspot mode .....	21
3.3.6 Circle mode .....	22
3.3.7 Movement speed .....	23
4. Memories .....	24
4.1 Programming of basic memories .....	24
4.2 Playback memories .....	26
4.2.1 Playback with programmed x-fade time and trigpoint .....	26
4.2.2 Playback with new x-fade time .....	26
4.2.3 Playback with manual x-fade .....	26
4.2.4 Freezing of single channels .....	27
4.2.5 Display of Memory Names .....	28
4.3 Selective memories .....	29
4.3.1 Programming of selective memories .....	29
4.3.2 Playback of selective memories .....	30
4.4 Modifying of memories .....	31
4.4.1 Changing names and parameters .....	31
4.4.2 Changing matrix and data .....	31
4.4.3 Copying memories .....	32

5. Chaser .....	33
5.1 Programming of chasers .....	33
5.1.1 New chaser steps .....	33
5.1.2 Programming chaser parameters .....	34
5.1.3 Insert or delete chaser steps .....	34
5.2 Playback chasers .....	35
5.2.1 Enable Chaser .....	35
5.3 Modifying a chaser program .....	36
5.3.1 Changing names and parameters .....	36
5.3.2 Changing sequence of steps .....	37
5.3.3 Changing step matrix and levels .....	39
6. Sequences .....	40
6.1 Programming of sequences .....	40
6.1.1 New sequence steps .....	40
6.2 Playback of sequences .....	43
6.2.1 Playback of a sequence by GO button .....	43
6.2.2 Playback of a sequence with adjusted step rate .....	44
6.2.3 Playback of a sequence triggered by sound input .....	44
6.2.4 Manual x-fade between sequence steps .....	44
6.2.5 Playback of a sequence with programmed STEP MODE .....	45
6.2.6 Enable Sequence .....	45
6.2.7 Sequence playback menu .....	46
6.3 Modifying a sequence .....	47
6.3.1 Changing sequence step times .....	47
6.3.2 Changing step sequence and STEP MODES .....	48
6.3.3 Changing step matrix and levels .....	50
6.3.4 Recalling a memory or chaser as step of a sequence .....	51
7. REMOTE .....	52
7.1 Remote via Touchboard .....	53
7.1.1 Input signal .....	53
7.1.2 Assigning board functions .....	53
7.2 Remote via DMX input .....	54
7.2.1 Input signal .....	54
7.2.2 Assigning board functions .....	54
7.3 MIDI .....	55
7.3.1 Choosing the MIDI channel .....	55
7.3.2 MIDI data format of the Scancommander .....	55
7.4 Master-Slave Operation .....	56
7.4.1 Installation .....	56
7.4.2 Starting the couple mode .....	56
7.4.3 Working on master-slave mode .....	56
7.5 SMPTE TIME CODE .....	57
7.5.1 Time Code Network Technics .....	57
7.5.2 Live recording of a Time Code show .....	58
7.5.3 Time Code Playback .....	60
7.5.4 Modifying a Time Code program .....	61
7.6 The Scancommander Extension Unit .....	63

8. Dimmer and color changers .....	64
8.1 Assigning EXTRA channels .....	64
8.2 Direct access to EXTRA channels .....	64
8.3 EXTRA groups and brightness master .....	65
8.4 EXTRA presets .....	65
8.5 EXTRA channels in memories .....	66
9. Utilities .....	67
9.1 Display index .....	67
9.2 Storage of programs .....	68
9.2.1 Backup on to memory card .....	68
9.3 Clearing programs .....	70
9.4 Keyswitch .....	70
9.5 Macros .....	71
9.5.1 Programming macros .....	71
9.5.2 Macro user examples .....	72
10. Inputs and outputs .....	73
11. Defining your own Scans .....	75
Index .....	79
Fixture Library: .....	83
Appendix 1: .....	87
Appendix 2: .....	108
Controlling "TRACKSPOT" .....	114
Controlling "INTELLABEAM" .....	115
Controlling "Cyberlight" .....	118
Safety instructions .....	118
Declaration of Conformity .....	119

# 1. Introduction (Version 4.31)

## 1.1 General remarks

The MA SCANCOMMANDER features perfect and easy control of most DMX 512 compatible moving lights and multifunctional fixtures. Up to 16 units can be controlled simultaneously.

Main features of the MA SCANCOMMANDER:

- Access to colours, gobos etc. via labelled buttons.
- Programming of selective scenes with - for example - fixed positions but new colours.
- Transformation of all programs to different stages and different types of fixtures.
- Followspot via Trackball with several different fixtures.
- Slow fades with freely selectable trigpoint for colours, gobos etc.
- Direct access to all functions during running scenes.
- Fader for direct control of brightness.
- Remote inputs for touchboards, DMX 512, MIDI Sound and SMPTE Time Code.
- Unlimited number of fixtures by docking several MA SCANCOMMANDERS.
- Simultaneous control of different types of lighting fixtures.
- Additional 96 channels for dimming or color changers.

Chapter 2 describes the set up, which has to be followed step by step: Choosing lamp type, giving DMX starting address and initializing the stage.

Chapter 3 to 6 describe the direct access to single functions and the programming of scenes.

Appendix 1 lists the types of fixtures, which can be interfaced to the MA SCANCOMMANDER.

When you see ">>...." in this menu, there will be further explanations on this subject. The index at the end makes it easy to find certain subjects.

**To be involved in the update service, please fill out the registration card at the end of the manual.**

## 1.2 Specifications and extras

The basic MA SCANCOMMANDER is delivered as a 19" version with 1 desk lamp. With this configuration it can perform all functions except labelling your scenes and presets in the display. There is a list of options available that will fit your needs.

*Trackball,  
Computer mouse*

Makes it easy to control movements. All Atari compatible trackballs or mice can be used. Note: PC compatible mice cannot be used !!

*Keyboard*

Enables you to label your programs. Any PC-MF keyboard will work. American keyboards may cause some problems by exchanging different letters. (>>Memory Names, Preset Names)

*Keyboard drawer*

The keyboard, offered by MA, can be mounted in a drawer underneath the SCANCOMMANDER

*Board housing*

Wooden sides and a front armrest are available.

*Backup cue card*

All programs can be stored on a memory card in addition to the internal storage. Cards from 32 to 256 kilobyte, type ITT STAR CARD S-RAM can be used.

## 1.3 Installation

*Powersupply*

100-240 Volt, 40-60 Hz via Euro plug. No switching of voltage necessary.

*DMX 512 output*

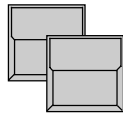
According to USITT DMX 512 (1990) protocol. The output is opto insulated and even better than RS 485 or RS 422. The pins in the 5 pin XLR plug are: Pin 1: ground, Pin 2: Data-, Pin 3: Data+ (Pin 4 and 5: not used)

Other in- and outputs see chapter 9.

## 2. Setup

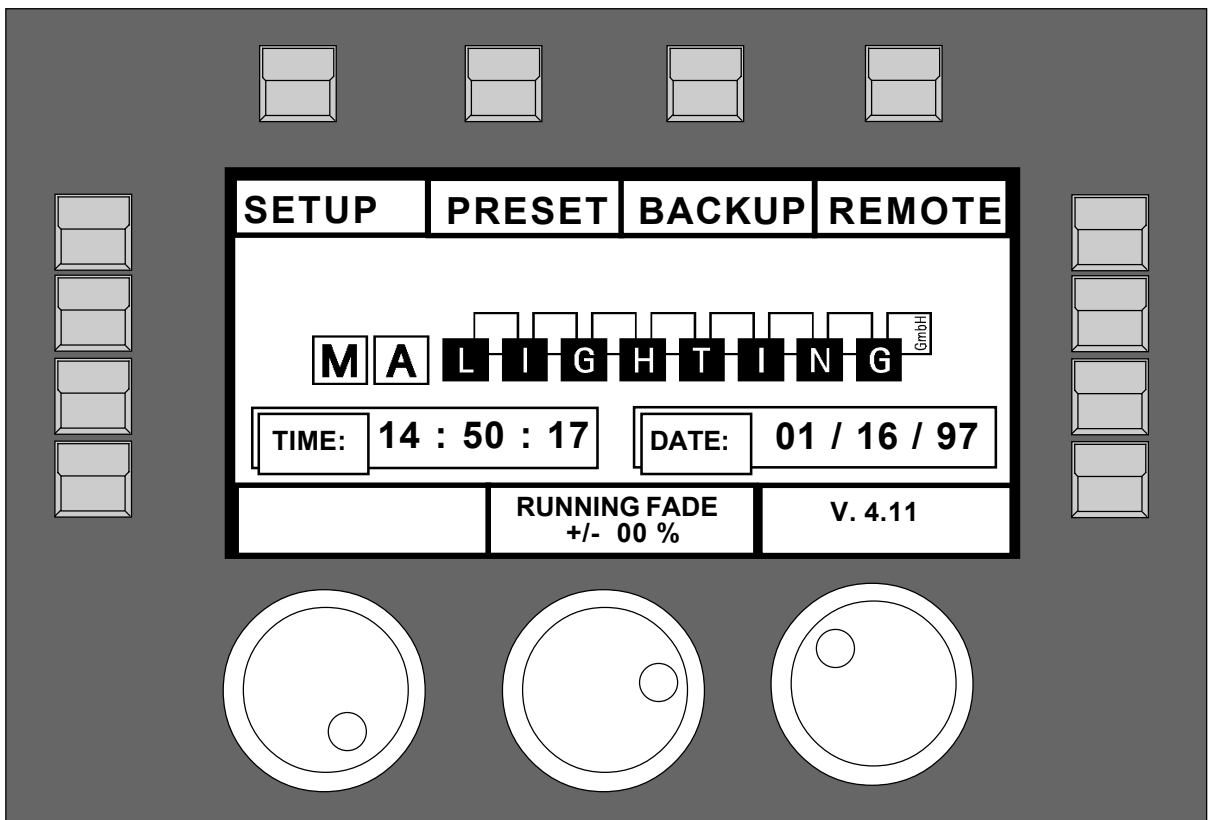
### 2.1 Top menu

Top Menu



QUIT button (2x)

Starting point for all operations is the TOP MENU. To go back to the TOP MENU during any operation press Quit button 2 x.



Display buttons

The squares in the display show the current function of your 12 buttons around the display. The 3 encoders are dedicated to the 3 lower squares of the display.

Quit button

By pressing the Quit button 2 x you can return to the TOP MENU. The current operation will be cancelled and the board returns to the normal operation mode.

Running fade modification

The encoder wheel no.2 can be used to modify the speed of all active fades (see 9.1 for details).

## 2.2 Lamp type

The MA SCANCOMMANDER is able to control various lamp types. All necessary adjustments are made by simply choosing a lamp type from the list.

Selecting the Lamp Type Menu



SETUP

The button on top of the display label "SETUP" switches the board to the setup menu.



LAMPTYPE

The display shows in 10 sections names of manufactures. MORE turns the page for more manufactures. The list in the centre shows the 16 selected lamp types.

For self-defined scans please choose "User Scan" (see chap. 11). You can call 16 different scans which were defined by yourself previously.

<b>CAMELEON</b> FRANCE	<b>CLAY PAKY</b> ITALY	<b>COEMAR</b> ITALY	<b>FAL</b> ITALY
<b>B + K</b> GERMANY	<b>LAMPTYPE SETUP</b>		<b>FLY</b> ITALY
<b>AMPTOWN</b> GERMANY	1 GOLD 2	9 GOLD 2	<b>JB</b> GERMANY
<b>USER SCAN</b>	2 GOLD 2	10 GOLD 2	<b>LAMPO</b> ITALY
<b>MORE 1(3)</b>	3 GOLD 2	11 TIGER	<b>READY</b>
	4 GOLD 2	12 TIGER	
	5 GOLD 2	13 INTEL7	
	6 GOLD 2	14 INTEL7	
	7 GOLD 2	15 INTEL7	
	8 GOLD 2	16 INTEL7	
<b>SELECT TYPE</b>	<b>GOLDEN SCAN 2</b>		<b>3 ( 12 )</b>

Selecting number of Scans



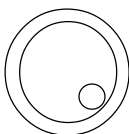
In the "Scan Selection" block the buttons have to be switched on according the number of scans to be registered.

Selecting manufacturer and lamp type



Manufacturer Name

When pushing the desired button, the square of that manufacturer will be shown inverted.



Encoder 1:

In the lower section of the display you find the first types of fixtures of the selected manufacturer. Turning Encoder 1 will scroll through the list of available lamps. If there are "Presets" for the chosen type the scan type will be shown inversely.

Registration of selected lamp type



READY

After selecting the desired lamp type, press READY



INIT:SCANS+VALUES+NAMES

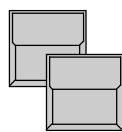
All necessary data for this scan type is now downloaded. The three other kinds of initialization are for registration of different scan types for simultaneous operation.



### 2.3 DMX output addresses

All control signals from the Scancommander are on DMX 512 and are sent on a two conductor cable to stage. Therefore the single scans need to have a DMX start address to know, to which data they must respond.. Usually this address can be selected by a DIL switch directly on the lamp or at their DMX interface.

On the SCANCOMMANDER these addresses have to be set for the individual scans.



SETUP  
DMX

The DMX Output Patch Menu shows three lists of 16 DMX addresses each. The first list concerns the scans, list 2 and 3 are for additional dimmers and color changers (>>Extra1,Extra2) .

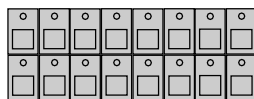
<b>PATCH</b>	1	1 (6)	1	-- (3)	1	-- (3)
	2	7 (6)	2	-- (3)	2	-- (3)
	3	13 (6)	3	-- (3)	3	-- (3)
<b>CLEAR</b>	4	19 (6)	4	-- (3)	4	-- (3)
	5	25 (6)	5	-- (3)	5	-- (3)
<b>Scans</b>	6	31 (6)	6	-- (3)	6	-- (3)
<b>Dimmer</b>	7	37 (6)	7	-- (3)	7	-- (3)
<b>EXTRA 1</b>	8	43 (6)	8	-- (3)	8	-- (3)
	9	49 (6)	9	-- (3)	9	-- (3)
<b>EXTRA 2</b>	10	55 (6)	10	-- (3)	10	-- (3)
	11	61 (6)	11	-- (3)	11	-- (3)
	12	67 (6)	12	-- (3)	12	-- (3)
	13	73 (6)	13	-- (3)	13	-- (3)
	14	79 (6)	14	-- (3)	14	-- (3)
<b>131</b>	15	85 (6)	15	-- (3)	15	-- (3)
	16	91 (6)	16	-- (3)	16	-- (3)



SCANS

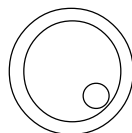
The square SCANS has to be inverted.

Adjusting DMX start addresses



SCAN Selection buttons

DMX start addresses have to be set one by one for all scans. The scans have to be selected by their respective button in the SCAN SELECTION block.



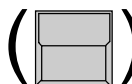
Encoder 1:

Selects the startaddress. An address is only possible to select, if the number of channels, needed for this scan, is freely available (Number in brackets shows the number of channels, necessary for the registered lamptype)



PATCH

Registers the selected address for the activated Scan. To go on the next automatically selected scan has to be chosen.

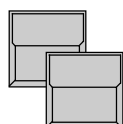


Clear

Clears the registered address and enables the selection of a new start address.

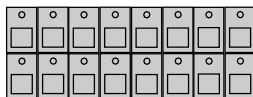
## 2.4 Movement direction on DMX mode

The movement of the beams can be controlled via two of the encoder wheels, an external tracker ball or computer mouse. To reach an ergonomic handling of the trackerball it is possible to do a course adjustment of the movement.



SETUP  
DMX MOVEMENT

	CENTER		
	PAN: 128 , TILT : 266		
CHANGE PAN<>TILT	<b>4</b>		
INVERT PAN			
INVERT TILT			
PAN		TI	



SCAN Selection  
Selection of one single scan.



CHANGE PAN<>TILT  
Exchanges the DMX signal of the pan and the tilt channel.

INVERT PAN or INVERT TILT  
Changes the direction of the pan or tilt channel.

Using the DMX mode, the values, adjusted on the Scancommanders display, are send directly as DMX values to the lamps. Beside this mode the Scancommander offers a stage adapted way of controlling pan and tilt. The difference between this two modes are listed in the following chapter and in 3.3.1.

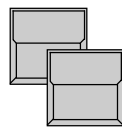
## 2.5 Initializing of stage

*Basic features of movement control*

Optionally movement and positions of the light beam are handled as X/Y coordinates on stage. The value 0/0 corresponds to the middle of the stage. Changing the X value relates to movement right or left, changing Y moves between front and backside of the stage. This way of calculation makes it necessary to do an initialization before starting the programming of scenes, but gives you a list of advantages

- Programs can be easily transferred to a new stage setup.
- On followspot mode via trackball all beams stay together.
- Moving the trackball or mouse in one direction will move the beam of all lamps the same direction.

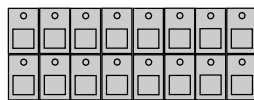
To be able to use these advantages, the stage has to be "shown" to the single scans. This initialization is done by pointing with the beam to the 4 corners of the stage. (The most exact way to do this initialization is by using nearly closed iris or small dot gobo >> see chapter 3 Direct access.)



### SETUP STAGE MOVEMENT

The Display shows the MOVEMENT SETUP Menu.

<b>RESET</b>	Center		<b>STORE</b>
	PAN: -254 , TILT : 312		SET <input type="checkbox"/>
<b>CHANGE PAN&lt;&gt;TILT</b>			SET <input type="checkbox"/>
<b>INVERT PAN</b>	<b>4</b>		SET <input type="checkbox"/>
<b>INVERT TILT</b>			SET <input type="checkbox"/>
<b>PAN</b>			<b>T I</b>



### SCAN SELECTION block

Selection of one scan.



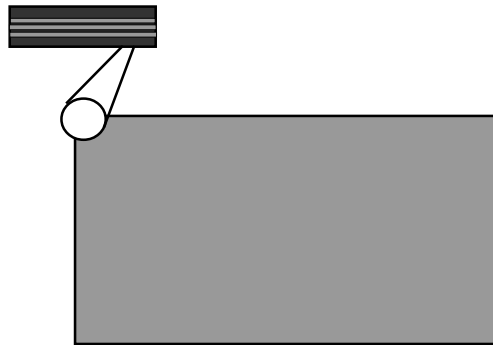
### RESET

Clears all former initializations and gives the scan a standard movement. This is helpful if the movement of the scan in some way is restricted by a former initialization.

*Note:  
RESET data can be used for controlling the movement, but cannot be adapted to new stage setups*

*Changing movement directions after RESET*

After RESET (square inverted) the buttons CHANGE PAN<>TILT, INVERT PAN and INVERT TILT offer the chance of a course adaptation of the trackerball movement to the beam movement.

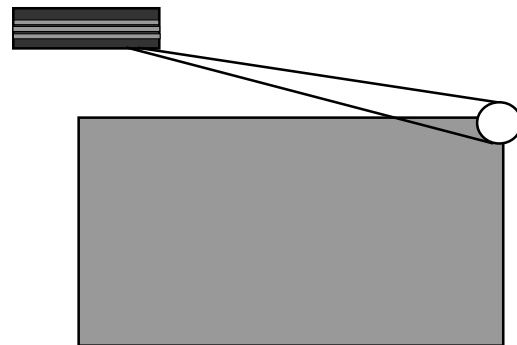


Heading the first corner on the left backside of stage with the beam (To be sure to get the same corner points for all the scans, the corners should be marked on stage with white tape crosses.)

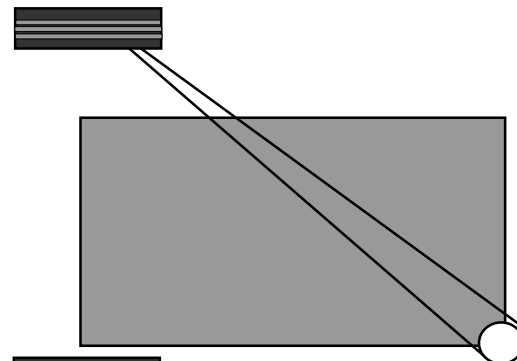
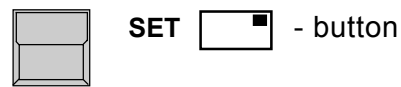
As soon as the beam meets the corner point,



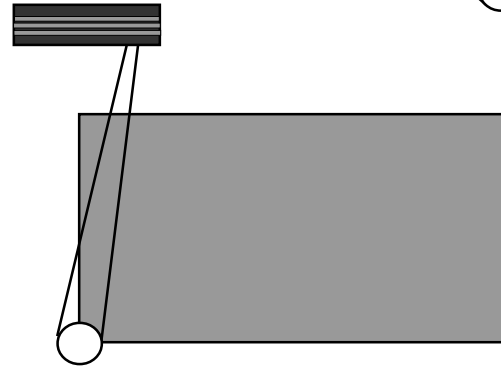
stores the position in a temporary data register. The mark "✓" shows, that this corner was already adjusted.



Heading the second corner



Heading the third corner



Heading the fourth corner



**! Attention !**

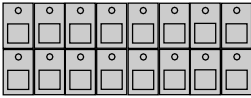


**! STORE !**

button in the DISPLAY  
Initializes the new movement. Changing to the next scan without STORE will clear the register of the corner positions.

### 3. Direct access

Actual Scan Selection



There is constant direct access to the single functions of the scans. Any function can be controlled for a number of scans simultaneously. The LED's in the Scan Selection block determine, which of the 16 scans will be affected. The "CLEAR" button beside the "SCAN SELECTION" block clears the selection, the "INVERT" button inverts the actual selection. "CLEAR"- "INVERT" selects all 16 Scans.

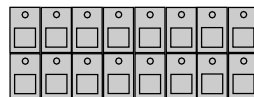
As long as the OPTION button is held down, the lower display button on the left side changes between the SINGLE and MULTI mode.

**SINGLE:** Only one scan can be selected at once. All other scans will be deselected automatically.

**MULTI:** It is possible to select more than one scan at a time to be controlled simultaneously.

#### 3.1 Scan groups and brightness fader

Combinations of scans, which are mostly used, can be stored and recalled as groups. In the same time, the brightness master underneath the group buttons are masterfaders for the brightness of this combination of scans.



SCAN Selection

Selection of the scans, which shall be stored as one of the groups.

STORE



Keep button pressed, select "SCAN" to be displayed on white background,

Programming of scan groups

...and simultaneously press...



Group button A-H

Stores the actual scan selection as group.

If you accidentally release the STORE button before pressing a group button, press two times QUIT to return to the TOP MENU.

Group buttons, when pushed during standard running mode, always overwrite the actual scan selection.

**! Attention !**

To have one or more of the scans lighting the stage, at least one of the group brightness faders has to be up. Even during movement initialization there will be no beam on stage as long as all group brightness masters are at zero.

**! Attention !**

The function "MASTERS ALL 100%" at the SETUP menu will set all master faders to full on. This makes sense during playback of synchronised shows but should be switched off during standard operation (white background).

## 3.2 Basic scan functions

### 3.2.1 Tuning with the encoder

All functions of a registered lamp can be selected and controlled directly. To see any effect on stage, every lamp has to be part of at least one of the groups and its brightness master has to be up.

Controlling functions via encoder



FEATURE button

Selection of any function is by their button in the FEATURE block. As soon as the EXTRA LED lites, the red printed functions are valid.

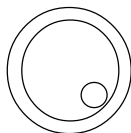
For any selected function the **DIRECT ACCESS Menu** shows the actual data in a list at the centre of the display. (Right the **COLOR display**)

VIOLET	GREEN	ORANGE	BLUE
YELLOW	<b>FEATURE COLOR</b>		PINK
RED	1 WHITE	9 WHITE	
WHITE	2 WHITE	10 WHITE	
MORE 1(2)	3 YELLOW	11 RED	
	4 YELLOW	12 RED	
	5 WHITE	13 WHITE	
	6 WHITE	14 WHITE	
	7 89 --	15 WHITE	
	8 89 --	16 WHITE	
WHEEL 1			WHEEL 2



SCAN SELECTION

The encoder always controls the scans, which are actually selected in the selection block. Their numbers in the display list are printed inverted and the values are modified when the encoder is used.



Encoder 1, 2 and 3

The three lower sections in the display show the functions, which are controlled by the encoder. The inside part of the encoder controls the function step by step, the outside ring offers a fast and course adjustment. (16 steps per increment).

**NOTE:**

As it is now possible, to select small beams and to control movement scan by scan, the stage initialization should be done before going on with programming. This is important to have the chance of transforming programs to new stage setups. (>>Movement initialization)

### 3.2.2 Programming of presets

*PRESETS*

Using the Encoder Wheels, all functions are controlled in 256 steps. But for most of the functions there are special values, which are used all the time, like the single colours on the color channel. These values can be stored together with a label as PRESETS and can be recalled by the push of a button later on. On direct access the 12 display sections will show these names. For most of the scans these PRESETS are stored internally and are downloaded when doing the lamptype setup. If these PRESETS are not available for the actual registered lamp type, or they are not right and have to be adjusted, you have to swop to the PRESET ADJUST menu.



**QUIT button**

The display switches to the TOP MENU.



**PRESET**

The display shows the actual output values and the headline "Adjust Preset".



**Feature button**

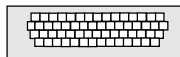
Presets can be programmed for all functions. Also for PAN/TILT, positions can be prepared as presets.



**Display button of the desired square**

Short push (<1/2 sec.) of a button inverts the square.

*PRESET names*



**KEYBOARD**

Input of a name with up to 6 characters.

**ENTER or RETURN (KEYBOARD)**

Stores the name for the preset.

*Adjusting values*

Adjustment of values via SCAN SELECTION and ENCODER 1 to 3.

*Saving a PRESET*



**1. x STORE button**

All Scans, where the function is available, are selected



**2. x STORE button**

For all selected scans the actual output values are stored as PRESET.

*Testing and modifying PRESETS*



**Preset button pressed for more than 1/2 sec**

The selected PRESET will be recalled and can be modified and stored.

After the second STORE the next PRESET can be programmed or the desk will return to the TOP MENU by using the QUIT button.

### 3.2.3 Playback of presets

*Playback PRESETS*

(X-Fader in the Feature block zero)



#### Feature Button

Selects a function for direct access.

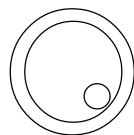


#### Display buttons

In direct access mode preprogrammed PRESETS can be recalled by their button. Similar to the control via encoder, only the scans which are actually selected, will change to the new value.

#### Display list:

If the actual value of a scan was selected by recalling a preset, the list will no longer show the channel value, but will show the preset name.



#### Encoder 1 to 3

Modifications via encoder:

- Any modification via the encoder will change the display to show the actual output value. If the value returns to the preset value, the display returns to show the preset name.

*Preset X-Fades*

Slow x-fades to a preset value:

#### X-FADER (FEATURE SELECTION BLOCK)



The x-fader in the feature selection block sets the time for the slow fade. On any recall of a preset, while this fader is raised to a value above zero, the channels will slowly change from their actual output value to the value stored in the preset.

When recalling a preset for a switch function like gobo, this fader should be down, otherwise the gobo wheels will slowly change to the selected new gobo.



## *SAMPLE function*

The SAMPLE function enables the recall of up to nine presets even for different features simultaneously. The SAMPLE preset commands can be created in advance and are listed in the display, as soon as the SAMPLE button is pressed.

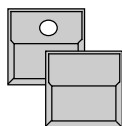
## *SAMPLE display*



### **SAMPLE - keep button pressed**

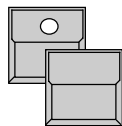
As long as the sample button is pressed, the SCAN-COMMANDER works in the SAMPLE mode.

- the display shows a insert window with up to nine preset recalls.
- Preset commands will not be executed but listed in the Display
- The GO+ button of the sequence will not recall the next step of the sequence, but will recall the sampled preset recalls.



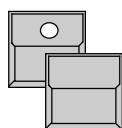
### **SAMPLE button and simultaneously any Preset button in direct access**

The Preset are not executed, but are listed in the SAMPLE list together with the actual scan selection and the actual x-fade time.



### **SAMPLE button and simultaneously GO + button of the sequence section**

The listed preset recalls get executed. The list will not be cleared and can be recalled again later on.



### **SAMPLE button and simultaneously CLEAR button in the feature section**

The SAMPLE list will be cleared.

Any new preset command, which is sampled in the list, may overwrite and therefore automatically clear a former command. (For example if a new command sets a gobo for all scans, any former gobo commands in the sample list are cleared.)

### 3.3 Movements

*PAN/TILT via encoder and Presets*

Controlling the movement works basically like controlling any other function. Positions, which are stored as presets, can be recalled by their buttons. The scan selection block shows, which of the 16 scans will go to the new position. When a preset is recalled with a x-fade time greater than zero, the beams will change slowly and with a linear travel from their actual position to the new one. In addition to encoder and preset playback, there are some functions which are only available for Pan/Tilt.

*PAN/TILT coordinates*

(two different mode, trackball and mouse, followspot and circle movement)

#### 3.3.1 Movement on direct DMX or on stage calculation

As noted in 2.4 and 2.5 on the Scancommander it can be selected between adjusting the DMX values of pan and tilt directly or adjusting the stage position where the scans are supposed to point to. Although it is possible to swap between this two modes any time, it is highly recommended to select one of the modes as basic for all programs.

*Advantages and disadvantages of the two operation modes*

DMX direct mode	Stage calculation mode
<p><u>Setting position:</u></p> <ul style="list-style-type: none"> <li>- better control in extreme positions far outside stage</li> <li>- on moving head lamps, pan turns the yokes while tilt turns the lamp</li> <li>- the bump position of the yokes is placed at the same side every time the picture is recalled.</li> </ul>	<ul style="list-style-type: none"> <li>- synchronously control of all scans within the stage</li> <li>- linear movement of the beam even when using moving head lamps.</li> <li>- reaching the bump position of the yoke, the head lamp turns around.</li> </ul>
<p><u>Movements on fade:</u></p> <ul style="list-style-type: none"> <li>- depends on mechanical construction of the lamps</li> </ul>	<ul style="list-style-type: none"> <li>- linear movement of the beam within the stage area</li> </ul>
<p><u>Adaptation to new stage setups:</u></p> <ul style="list-style-type: none"> <li>- scans have to be mounted exactly to the same position as before or</li> <li>- all presets have to be adjusted</li> </ul>	<ul style="list-style-type: none"> <li>- adapting all programs by initializing the 4 corners</li> <li>- adjustment of single presets</li> </ul>
<p><u>Follow mode:</u></p> <ul style="list-style-type: none"> <li>- not possible</li> </ul>	<ul style="list-style-type: none"> <li>- without any problem up to 50% outside stage</li> </ul>
<p><u>Display on the pan/tilt menu:</u></p> <p>00 00</p> <p>to</p> <p>FF FF</p> <p>(optional in % or hexadecimal)</p>	<p>◊ -99 - 99</p> <p>to</p> <p>◊ 99 99</p> <p>the rhomb marks stage coordinates, white ramp marks a fade to stage coordinates</p>

*Special regulations on stage oriented movement*

- During stage oriented movement mode the value in the display reaches from -99 to +99. The centre of the stage corresponds to 0/0, the corners have values of +/-25. Values outside +/- 25 mean, that the beam is actually outside the stage.
- When a preset is recalled with a x-fade time greater than zero, the beams will change slowly and with a linear travel from their actual position to the new one.
- If the movement initialization was done correctly, any combination of scans, which shows the same values in the display, meet the same point on stage. Outside the stage, this effect will loose its accuracy.

**! Attention !**

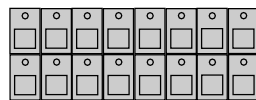
Programming presets for Pan/Tilt makes movement control very handy. 44 positions on stage can be preprogrammed and recalled by their button. In addition it helps to return to a well defined point if the operation via trackball gets confusing.

**! Attention !**

During any programming of positions make sure, that the circle radius is set to zero. If only the circle speed is zero, but the radius is greater zero, there is no circle movement visible, but the radius is still valid and will cause an offset on the programmed positions.

*Direct setting of the working mode*

**3.3.2 Changing the movement mode**



SCAN SELECTION

Selection of the scans to be changed



OPTION button

keep button pressed and simultaneously press



SET SELECTION TO STAGE MOVEMENT

selected scans, which work on direct DMX mode, will swap to the stage calculation mode and jump to "00 00" middle of stage.



SET SELECTION TO DMX MOVEMENT

selected scans swap to direct DMX mode without changing their position.

The actual mode is marks by "S" or "D" for all 16 scans. Changing the mode via option cancels all running fades.

*Changing the working mode can be done by recalling according playbacks*

The working mode is stored within any preset, memory, chaser or sequence step. The playback of this programs automatically restores the according working mode. Fades between two positions with different working mode always run in DMX direct mode.

### 3.3.3 Transforming memories to a new stage

#### Transforming stage mode data:

##### *Transforming programs to a new stage setup*

All movement positions which are stored as presets, memories or scenes, are automatically adapted to a new stage setup, as soon as the movement initialization is done. Therefore it is important to have the first movement initialization done before any program is stored. If the programs had been done on the basis of an exact initialization, no further adjustments are necessary. The same initialization is necessary, if the mounting position or height of a scan has been changed.

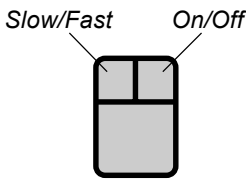
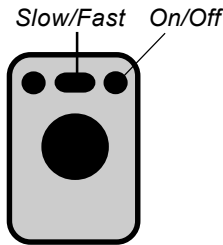
##### *Adjusting preset positions*

Preset positions can also be adjusted, if the point they have to hit on stage, has moved. If, for example, the position of the keyboard player has moved, only the preset "KEYB." has to be adjusted, and any memory, chaser or sequence step, which was programmed to meet the keyboard, will recall the right position.

#### Transforming direct DMX mode data:

##### *Transforming direct DMX memories*

If programs are stored on direct DMX mode the easiest way is to adjust the lamp position as exact as possible. Otherwise all programs, which are based on preset positions can be transformed by simply adjusting the 44 preset positions. Stage pictures, which are not based on presets, have to be tested and adjusted one by one.



### 3.3.4 Trackball and Mouse

An Atari compatible mouse or trackball makes control of movement very comfortable. In standard operation mode, no follow spot fixed (see 3.3.3), the mouse will always control the actual selected scans simultaneously. Unlike the control via encoder, the mouse even works when Pan/Tilt is not selected in direct access mode.

The mouse buttons switch the working modes, the new mode will be displayed for one second in the centre of the display.

Right mouse button (outer buttons on the trackball):

Switches the mouse on and off, to avoid accidental movements.

Left mouse button (inner button on the trackball)

Mouse speed changes between slow and fast.

*Followspot in standard operation mode*

*Fixing the followspot mode*

### 3.3.5 Followspot mode

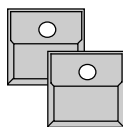
The Pan/Tilt calculation via the stage coordinates has the effect, that all beams, starting at the same point, stay together during simultaneous operation. Outside the stage this effect loses part of its accuracy.

To have a real tracking of a person moving on stage, it is necessary to do the movement initialization of the four corners at about 1.5 m height, otherwise the beams will perfectly light up the feet of the person, but not the body. Therefore the corners have to be marked by a microphone stand or something similar.

In standard operation mode, the mouse controls the actual selected scans. Using the EXTRA-FOLLOW feature, it is possible to fix one group of scans to the mouse. Any change of the scan selection while controlling colours, gobos or any other feature, will not affect the follow selection. The mouse will go on to control their scans.

Additionally the scans, fixed to the follow mode, won't be affected by any memory or playback program.

EXTRA LED has to be switched on

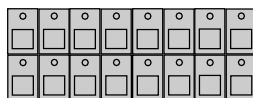


**FOLLOW**

The display changes to FOLLOW FIX Menu with the list of Pan/Tilt coordinates.

**SCAN Selection**

Selection of scans, which shall be fixed to follow mode.



**FREEZE FOLLOW inverted**

The selected scans are fixed to follow mode.

**MODE PROGRAM inverted**

Standard operation mode. The mouse always controls the actual selection of scans.

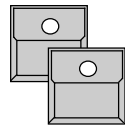


*Circle movement as a Feature*

**3.3.6 Circle mode**

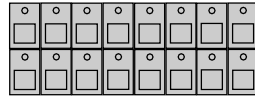
The feature EXTRA - CIRCLE offers direct control of circle movements. The actual Pan/Tilt position will be the centre point of the circle movement, radius and speed can be controlled by encoder. By moving the Pan/Tilt position, the circle will move simultaneously.

Circle parameters can be stored as presets like any other feature and can also be stored within memories, chasers or sequence steps. (>>Programming selective memories).



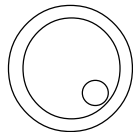
EXTRA LED has to be switched on  
CIRCLE

Direct access to the CIRCLE feature can be done with encoder or presets like on any other feature. At least one preset should be prepared with speed and radius set to zero for all scans.



SCAN Selection

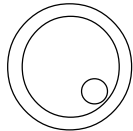
*Speed*



Encoder 1

Controls the speed. Crossing zero will change the direction.

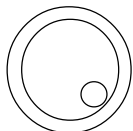
*Starting angle*



Encoder 2

As long as the radius is zero, a starting angle can be set between 0 to 15 (=F). This helps to start the different scans at different positions of the same circle.

*Radius*



Encoder 3

sets the radius of the circle.

*Terminating a circle movement*

Any circle movement can only be terminated by turning the radius to zero or by recalling a preset, which sets the radius to zero.

For keeping control of circle movements and to have the chance to terminate circles as quick as possible, it is recommended to program a preset for circle "OFF".

Using the selective way of programming memories and sequence steps, it is important to have one of the memories S1 to S10 stored as "CIRCLE OFF" memory. (>> 4.3 Selective memories)

When a circle movement is terminated by setting the radius to zero, the beam returns to the centre of the circle.

***! Attention !***

During any programming of positions make sure, that the circle radius is set to zero. If only the circle speed is zero, but the radius is greater zero, there is no circle movement visible, but the radius is still valid and will cause an offset on the programmed positions.

### 3.3.7 Movement speed

*Handling within the Scancommander*

Slow movements are one of the major applications of moving lights. The MA SCANCOMMANDER controls fades by updating the position about 40 times a second. The intern resolution of the SCANCOMMANDER is 1600 steps for Pan and 1600 steps for Tilt. Using one or two channels per direction, the Pan/Tilt informations can be sent with 8 to 16 bit accuracy. Depending on the lamp type, the single steps of the SCANCOMMANDER will be conducted with individual degree of accuracy.

*Lamp types with 10 to 16 BIT accuracy*

As the DMX 512 signal features a 8 bit resolution, it offers control with 256 steps. A much improved movement control is possible, if the lamp offers a second channel for fine adjustment, reaching a 10, 12 or 16 bit resolution. Unfortunately today only few of the available lamps feature this second channel for high resolution control via DMX 512.

*Lamp types with smooth movements by creating intermediate steps*

Some of the lamps feature an intelligent logic, which enables the lamp to make smooth movements by creating their own intermediate steps. Therefore these lamps show a little delay on slow movement (Hysteresis). Especially when doing the movement setup, this may cause some loose of accuracy.

*Lamp types with a speed channel*

Other lamps require that the speed data are sent on a separate DMX 512 channel. As this speed information has to be set by the user any time there are changes between fast movement and slow fades or follow spot operations, it is not very handy.

Setting this speed to maximum leaves no chance to do slow movements, as the lamps will jump from position to position.

Appendix 1 lists the scans, which will successfully interface with the MA SCANCOMMANDER. Unused features such as focus or zoom can be used as a makeshift for lamps which need additional speed information. Controlling the movement speed of these scans can be done by programming some selective memories on S1 to S10, which only set a value on to the speed channels.

(>>4.3 Selective memories)

## 4. Memories

Any picture on stage can be stored as a memory and recalled by touching a button. If the actual position is created by recalling a preset, any modification of this preset will cause the memory to recall the modified values. Therefore it is no longer necessary to adjust every single scene when adapting programs to a new stage setup.




### 4.1 Programming of basic memories



STORE button

The display shows a matrix with 16 columns for the scans and 12 rows for the features. "-" in the matrix indicates, that this feature is not available for the registered scan. Small dots in the middle of a square show, that the feature for this scan was set by the encoder wheel, a cross indicates, that the value is a presetvalue.

STORE MATRIX when controlling 6 scans.

-  Preset values
-  Encoder values
-  Stage coordinates

For the beginning it is just important, to have all squares in the matrix inverted.

(>> 4.3 SELECTIVE MEMORIES)

SCAN No:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SHUTT	+	+	+	+	+	+										
IRIS	+	+	+	+	+	+										
FOCUS																
C-M-Y																
PRISMA																
COLOR	+	+	+	+	+	+										
DIMMER	+	+	+	+	+	+										
GOBO	+	+	+	+	+	+										
MOVE	◊	◆	◆	■	+	+										
CIRCLE	+	+	+	+	+	+										
SPEED																
ROTAT.																
EXTRA 1																
EXTRA 2																

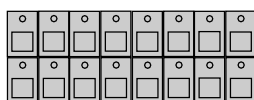
During initial programming operations, all blocks within the matrix have to be displayed in inverted contrast. In case some of the squares are not inverted, press

Selecting the complete STORE MATRIX



1. x CLEAR button in the feature block

The matrix is cleared, all blocks are not displayed inverted.



SCANSELECTION

Use -CLEAR - INVERT to select all scans



2. x CLEAR

The matrix is completely selected. All blocks are displayed inverted.

Note: if the STORE MATRIX is not completely selected, only some of the adjustments on stage are stored.

(>> 4.3 Selective Memories)

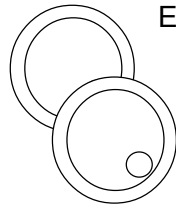
The matrix is stored internally and reconstructed as soon as the next picture is stored.



Trigpoint and x-fade



Features may be selected for slow infade (indicated by the small ramp) or for fast switching to the new value (trig). A trigpoint will set, whether the switching will be done at the beginning, the middle or the end of the fade.  
 Example: A scan may move slowly from its old position to the middle of the stage, the color is set to change quickly at 50%, means middle of the travel.



Encoder 1

Selects a feature marked by an arrow.

Encoder 2 or 3

Switches between Trig and fade.

Ramp (black triangle): Slow x-fade

No Ramp :Switching at the Trigpoint

Memory pages

the PLAYBACK area right hand on the front panel offers 40 buttons for memories, whereas the upper 30 buttons can be switched to 4 different pages A to D. The right hand buttons with two LED's are able to contain chasers. A flashing LED in a page button shows the preselected page. The lower ten memory buttons S1 to S10 stay untouched by the page buttons and should be programmed to contain the mostly used memories.



MEMORY button/ (PAGE A-D)

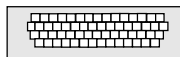
Selects a place to store the picture as memory.



A small graphic shows the STORE matrix of this memory

	<b>PROGRAM MEMORY</b>		
	MEMORY:	<b>A 2</b>	
	FREE:	(84233)	
	<b>NO NAME</b>		
<b>FADE 0.0 sec</b>			<b>TRIG 0 %</b>

Memory name and parameters

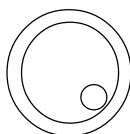


KEYBOARD

Input of a name with up to 14 characters.

ENTER or RETURN (Keyboard)

Stores the name.



Encoder 1 and 3

Sets x-fade time and trigpoint.

Storing a memory



STORE button

Saves the actual stage as a memory.

## 4.2 Playback memories

### Standard Memories

Memories can be recalled by their respective buttons any time. All channels, which had been selected in the store matrix, will be set to a new value. Therefore standard memories with completely selected store matrix will recall one well defined picture on stage. The LED in the last recalled memory lites up.

### Preprogrammed fade time

#### 4.2.1 Playback with programmed x-fade time and trigpoint

For any feature which was set to x-fade mode (small ramp in the store matrix), the output will not switch to the new value but will change slowly with the programmed fade time.

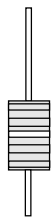
The output of the trigger features will switch as quickly as possible to their new value. The time of switching is set by the trigpoint.

### Overwriting the programmed fade time

#### 4.2.2 Playback with new x-fade time



FADE MODE switched to SET TIME



X-Fader in the playback section

The x-fader will now overwrite the programmed fade time.

Switching features will adapt their trigpoint according the new fade time.



Memory button

Recalls the memory with the adjusted fade time.

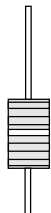
### Manual cross fades

#### 4.2.3 Playback with manual x-fade



FADE MODE switched to MAN FADE

As soon as the fader is moved to one of the end positions (LED on), a memory can be loaded for manual crossfade.



X-FADER

Moving the fader will crossfade the values between the start position and the new memory.



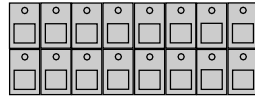
MEMORY button during running fade

FADE LED flashes and the memory will be recalled with its stored fade time.

### 4.2.4 Freezing of single channels

*FREEZE button*

The FREEZE function fixes the actual value of single channels. These channels will no longer be affected by any playback.



**SCAN Selection**  
Select a combination of scans



**FREEZE button in the FEATURE block**  
keep button pressed ... (The display shows a matrix. The already frozen channels are displayed inverted.)  
and simultaneously press



**FEATURE button**  
The LED inside the FREEZE button lights up. For the actually selected scans the selected feature is fixed.



**MEMORY button**  
The fixed channels get no longer affected by any memory, even if they had been selected in the store matrix of this memory.

*Changing the selection of frozen channels*

Changing the scan selection and pushing another feature button will create a combination of frozen channels shown in the display. Selecting a feature where already some scans are fixed will clear the old selection of scans and will freeze the new selection. This way, for single features, the Freeze can be cleared by not selecting any scans.

*Controlling frozen channels*

Direct Access via presets or encoder will work even on frozen channels. The Freeze only protects against playback buttons like memories.

*Clear FREEZE*

The complete freeze is cleared by pushing  
**FREEZE button...**



and simultaneously ...



**CLEAR button in the FEATURE block**  
The LED in the FREEZE button is dark.

*Automatic FREEZE on FOLLOW MODE*

All scans fixed to follow effect by EXTRA FOLLOW Mode are frozen automatically. This is to avoid accidental changes of the beams, which are used to track a person. (>>Fixing the followspot mode)

### 4.2.5 Display of Memory Names

List of memory names

The names of the memories, set during programming or editing, can be listed in the display.



LIST button at the playback section

As long as the button is pressed, the display will show the names of the actual memory page.

Upper 5 buttons

2. line

3. line

4. line

..

..

Memory S1 to S10 are the same on all 4 pages

MEMORY A/01	MEMORY A/02	MEMORY A/03	MEMORY A/04	MEMORY A/05
MEMORY A/06	MEMORY A/07	MEMORY A/08	MEMORY A/09	MEMORY A/10
MEMORY A/11	MEMORY A/12	MEMORY A/13	MEMORY A/14	MEMORY A/15
MEMORY A/16	MEMORY A/17	MEMORY A/18	MEMORY A/19	MEMORY A/20
MEMORY A/21	MEMORY A/22	MEMORY A/23	MEMORY A/24	MEMORY A/25
MEMORY A/26	MEMORY A/27	MEMORY A/28	MEMORY A/29	MEMORY A/30
S/01	S/02	S/03	S/04	S/05
S/06	S/07	S/08	S/09	S/10

When releasing the button, the desk will return to the last display. This list can be recalled any time, even during STORE or EDIT function, without interrupting the actual procedure.

Permanent display



LIST double click (2 x pushing within 1/4 sec.)

Outside STORE, EDIT or MODIFY the list can be recalled for permanent display by a double click. It automatically switches off when using the display for any other function.

Display buttons and encoder locked

All the functions of the desk remain untouched, but the display buttons and encoders will be cancelled as long as the list is in display.

Setting names via keyboard

The names of memory 1 to 30 are displayed with 2 x 7 characters. S1 to S10 get 7 characters each. When typing the name during STORE or EDIT, small arrows mark the beginning of the second 7 characters.



### 4.3 Selective memories

*Working mode of selective memories*

Memories and scenes may be programmed in a way, that they only affect selected channels. When this memory is recalled by its button, all other channels stay untouched.

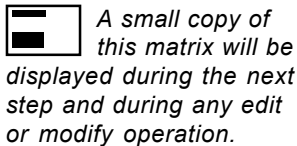
Example: a memory may be supposed to recall only a new color for scan numbers 1 to 6. The position of the beams, the gobos and all other functions stay unchanged, when this memory is recalled. Scan no.7 to 16 stay completely untouched.

#### 4.3.1 Programming of selective memories

The STORE MATRIX, displayed any time the STORE button is pushed to save a picture, marks out, which of the channels will be controlled by this scene.

STORE button

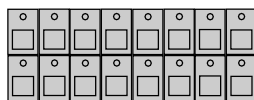




SCAN No:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SHUTT																
IRIS																
FOCUS																
R-G-B																
PRISMA																
COLOR																
DIMMER																
GOBO																
MOVE																
CIRCLE																
SPEED																
ROTAT.																
EXTRA 1																
EXTRA 2																

*Selecting single channels in the STORE MATRIX*

Unlike programming standard memories, on programming selective memories only a part of the channels are selected.



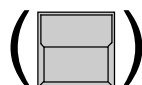
SCAN Selection

Selects the scans which will be affected by the following feature



FEATURE button

For the actual selection of scans, this feature is selected. Selected channels are displayed inverted. Changing the scan selection before pushing the next feature button enables you to select any free combination of channels.



CLEAR button in the FEATURE block

Clears the complete matrix. The second CLEAR will select all features for the selected scans. The third CLEAR selects all features for all scans.

The further procedure of storing selective memories is the same as storing standard memories.

The modified STORE MATRIX is saved internally and reconstructed as soon as the next STORE operation starts.

### 4.3.2 Playback of selective memories

Recalling selective memories works the same way as recalling standard memories, but there are some advantages on programming selectively

Free combination of a number of selective memories:

A memory, setting the position of the scans can join together with pure color memories or pure gobo memories. The same color memory may be recalled during a running chase for movement. Operating in this way saves time when programming up and saves storage capacity.

Saving storage capacity:

On a selective memory, only the data of the selected channels get saved. Using selective memories enlarges the number of chaser steps possible to program later on.

Drawback of selective programming:

Using selective programs requires a good overview of the stored programs. As selective memories affect only selected channels, the picture they produce on stage may be different depending on the picture before.

Example: If the beams are doing a circle and a new memory only contains a new pan/tilt position, pushing this memory will only move the centre of the circle to the new position but will not stop the circle movement. To stop the circle and to send the scans to a new and well defined position, the new memory needs to contain the information "Set radius to 00" and CIRCLE has to be selected in its STORE MATRIX for all the scans.

To avoid confusion on using selective memories, the memories S1 to S10 should be programmed to contain some standard memories with fully selected STORE MATRIX.

In addition there should be some "Stop" memories like "Circle Off", which only set the circle radius to 0 for all the scans, or "Shutter Strobe Off".

## 4.4 Modifying of memories

*Modifying memories, basic structure*

A stored memory contains data for:

- Name, x-fade time and trigpoint
- Matrix with trig/fade marks for the features
- Data for the single channels

All these data can be modified without starting from the very beginning.

### 4.4.1 Changing names and parameters

*Changing memory parameters*



EDIT button

the LED inside this EDIT button is on as long as the edit mode is active.



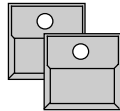
Memory button

Memory name, x-fade time and trigpoint can be set via keyboard and encoder. Select the next memory or cancel edit mode by switching off the edit button (also possible by quit or any direct access.)

Changing the memory parameters only will not recall this memory to stage.

### 4.4.2 Changing matrix and data

*Modifying single channel values or the matrix selection*



EDIT button

Memory button



MODIFY button

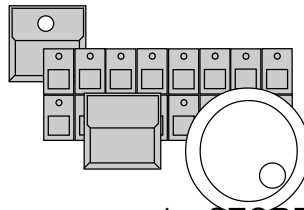
The selected memory gets recalled to stage and the block "MODIFY" is displayed inverted.



EDIT MATRIX

Edit Matrix has to be inverted, if the STORE MATRIX has to be checked or modified within the next steps.

Feature button



SCAN selection

Preset button or Encoder

Channel values can be modified via direct access.

1.x STORE button



Shows the STORE MATRIX of the selected memory. Selection of channels and trig/fade marks can be modified.

2.x STORE button

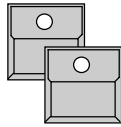


Saves the modified memory.

The STORE MATRIX of the last modified memory stays in the temporary storage and will be reconstructed when doing the next store operation.

### 4.4.3 Copying memories

By recalling



EDIT -  
Memory A -



COPY MEMORY button on the display

keep button pressed and simultaneously press ...



Memory B

Copies the memory including name, fadetime and trigpoint settings.

Copy is possible between standard memories, but not possible between chases or sequences.



## 5. Chaser

The right column of memory buttons contain a second LED. With these buttons it is possible to program single stage scenes as memories or complete chaser programs. Chaser programs are just a list of scenes which change with preselected step time.

### 5.1 Programming of chasers

*Programming steps like programming memories*

Programming chaser steps works like programming a memory. Whereas an old memory is erased as soon as a new stage scene is programmed to its respective button, scenes stored to a chaser button will be added to the list of steps already stored.

#### 5.1.1 New chaser steps



STORE button

Matrix can be set

(Prepare your stage plot like on programming memory.)

CHASER button (Page A-D)

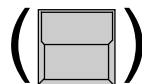


Selecting one of the right side memory buttons (5, 10, 15, 20, 25, 30, S5 or S10)



A small graphic shows the STORE Matrix of this step

<b>INSERT</b>	<b>DELETE ALL</b>		<b>SINGLE</b>
1 2 .....	<b>PROGRAM CHASE</b>		
	CHASE: <b>A 25</b>		<b>LINK FADE</b>
	STEPS: 2	(94770)	<b>STEP FADE</b> 0.00 sec
	FREE:		<b>STEP TRIG</b> 0 %
	<b>3</b>	<b>SPEED</b> 0.500 HZ 2.000 Sec	



DELETE ALL

Clears the chase and erases all old steps.



STORE

Saves the stage picture as a new step at the end of the chase

*Stop chaser after one run*



SINGLE square

Inverted: The chaser will stop automatically when reaching the last step

Normal: The chaser will return to step one and will go on running.

CHASER SPEED  
STEP FADE  
STEP TRIG

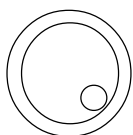
### 5.1.2 Programming chaser parameters

SPEED - sets the time between the different steps

STEP FADE- sets the x-fade time between the single steps

STEP TRIG - sets the trigpoint between the single steps

As the STORE MATRIX may be different from step to step, the listed parameters are global for the complete chaser program.



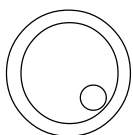
Encoder 2

Speed in Hertz (steps / sec.) and in seconds.



STEP FADE or  
STEP TRIG

Inverts the respective block in the display. In case LINK FADE is selected, the fade time is set in percentage of the step time



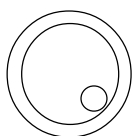
Encoder 3

Changes the selected parameter. The step fade is allowed to be longer than the step time (SPEED). This makes sense if the fading channels are not selected in the next step. Otherwise they will not find the time to do their fade. (>> selective programming)

### 5.1.3 Insert or delete chaser steps

*Step sequence*

Any time a chaser button is selected to store a new step, the step counter will automatically jump to the old step number + 1. This way the new picture will be added as the new last step of the chaser.



Encoder 1

Selection of a step number.

*Insert a new step*



INSERT

Shifts the selected step and all following steps one step back and inserts the new picture at the selected place.

*Overwrite an old step*



STORE button

Overwrites the selected step by the new picture. The total number of steps stays unchanged.

## 5.2 Playback chasers

*Start a chaser*

Chaser programs are recalled by their respective buttons like any other memory. Each step will control output channels according to its STORE MATRIX. Selective programmed steps keep deselected channels untouched.

*Termination of a chaser*

A second push on a chaser button will not stop the chase but will make it start again with step number one. On the MA SCANCOMMANDER always the latest pushed button has the highest priority. To stop a running chaser, all the channels, which are actually controlled by the chaser steps, have to be overwritten by recalling a memory or preset in direct access.

*Partly overwriting a running chaser*

Recalling selective memories may overwrite parts of the channels, controlled by the chaser. Therefore the chaser loses its priority on these channels, whereas other channels may still be controlled by the next chaser steps.

A chaser may control color, and movement of the scans. If the color has been overwritten by recalling a pure color memory or any color preset in direct access, the chaser will still go on to control movement, but it has no longer priority over the color. This makes it possible to do the same movement with different colours. In the same way a selective memory may control all features of only one or two scans. Recalling this memory after starting a chaser will cut down the effect of the chase as it can no longer control these scans. The rest of the scans will continue with the chaser steps.

*Freezing single channels*

Channels, fixed to their value by the FREEZE function, will no longer be affected by chaser steps. After clearing the FREEZE the chaser resumes control of these channels.

### 5.2.1 Enable Chaser

*Chaser recall without going back to step 1*

The ENABLE function allows the chaser to resume control of all channels without starting at step 1.



ENABLE button at the sequence section.

Keep button pressed ...

... and simultaneously press ...



Chaser button

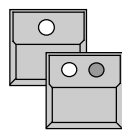
The next step of the chaser is enabled to control all channels according its step matrix.

### 5.3 Modifying a chaser program

A stored chaser program contains data for:

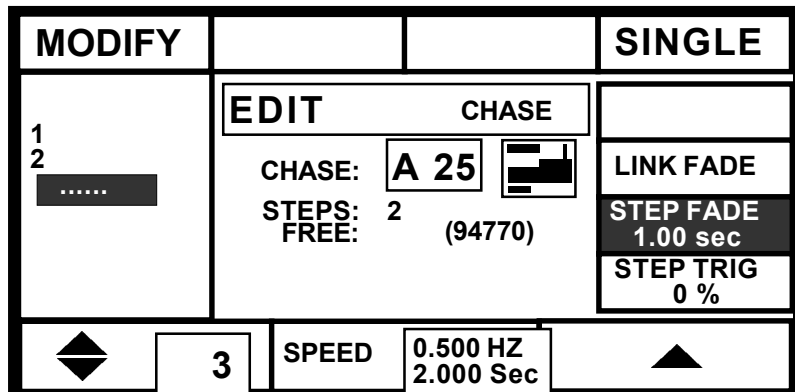
- Name, SPEED, STEP FADE time and STEP TRIG Point
- a STORE MATRIX per step
- a set of single channel values per step

#### 5.3.1 Changing names and parameters

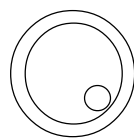


EDIT button

Chaser button

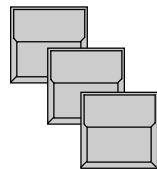


*On Line changing of the chaser parameters*



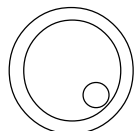
Encoder 2

Changing the SPEED of the chase on line.



STEP FADE or  
STEP TRIG

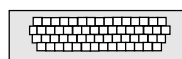
Selection of a parameter.



Encoder 3

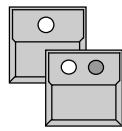
Changing the selected parameter. In case LINK FADE is selected, the fade time is set in percentage of the step time.

Any change of the parameters will work directly on the running program.



Keyboard with ENTER or RETURN  
Input of a new name.

### 5.3.2 Changing sequence of steps



EDIT button  
Chaser button

Modify mode shows the steps on stage

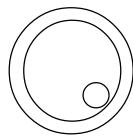


MODIFY

The selected step will be recalled to stage and the block MODIFY is displayed inverted.

MODIFY	MAKE BLOCK		EDIT MATRIX
1	<b>EDIT</b>		<b>CHASE</b>
2	CHASE: A 25		DELETED STEP
3	STEPS: 6		DOUBLE STEP
4	FREE: (94120)		
5			
6			
.....			
	◆	3	

Testing of the steps



Encoder 1

Scrolls through the steps and recalls the steps on stage.

Deleting a step



DELETE STEP

Erases the selected step and shifts all following steps one step ahead.

Creating a new step



DOUBLE STEP

Makes a copy of the selected step and inserts this copy right in front. The new step may now be modified.

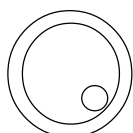
(see >> 5.3.3 Changing step matrix and levels)

Block operations



1. x MAKE BLOCK

Inverts the menu block contrast. The block operation mode starts, where a complete set of steps can be handled simultaneously.



Encoder 1

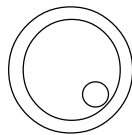
Selects steps for the following block operations. The number of the selected steps are displayed inverted.



**2. x MAKE BLOCK**

The four sections on top show the different block operations available.

MOVE BLOCK	COPY BLOCK	DELETE BLOCK	CANCEL BLOCK									
1 2 3 4 5 6	<b>EDIT</b> <table border="1"> <tr> <td>CHASE:</td> <td>A 25</td> <td></td> </tr> <tr> <td>STEPS:</td> <td>6</td> <td></td> </tr> <tr> <td>FREE:</td> <td>(94770)</td> <td></td> </tr> </table>		CHASE:	A 25		STEPS:	6		FREE:	(94770)		<b>BLOCK</b> START: STEP 3 END: STEP 5 <b>INFO</b>
CHASE:	A 25											
STEPS:	6											
FREE:	(94770)											
	7											



**Encoder 1**

Selects a new step number.



**MOVE BLOCK**

Moves the sequence of steps, marked as block, to the new address. The total number of steps stays unchanged.



**COPY BLOCK**

Makes a copy of all the steps in the block and inserts these steps at the new address



**DELETE BLOCK**

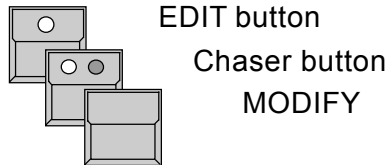
Deletes all steps marked as block and shifts the following steps ahead.



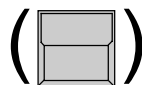
**CANCEL BLOCK**

Cancels the block operation mode and returns to the Modify Menu.

### 5.3.3 Changing step matrix and levels



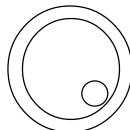
MODIFY	MAKE BLOCK		EDIT MATRIX
1	<b>EDIT</b>		<b>DELETE STEP</b>
2	<b>CHASE</b>		<b>DOUBLE STEP</b>
3	CHASE: A 25		
4	STEPS: 6	(94770)	
5	FREE:		
6			
.....			
		3	



**EDIT MATRIX**

Edit Matrix has to be displayed inverted, if the STORE MATRIX will be checked or modified within the next steps.

*Testing the single chaser steps*

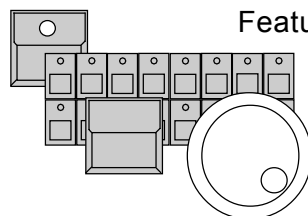


**Encoder 1**

Scrolls through the list of steps and recalls the steps on stage.

Note: Scrolling backwards through a selective chaser with different STORE MATRIX selections from step to step, will not produce the same pictures as scrolling forward. To be sure to see the right scenes switch off MODIFY, turn to step one and switch on MODIFY. Now, scrolling through the steps forward, will produce the right scenes.

*Changing the channel values and the matrix of a step*



Changing channel values via direct access.



**1. x STORE button**

If EDIT MATRIX was selected, it will show the STORE MATRIX of this step.



**2. x STORE button**

Saves the modified step and returns to the modify mode.

## 6. Sequences

*Difference between chaser and sequence programs*

Like a chaser a sequence contains a list of pictures stored as steps. The additional features of the sequence give the chance to prepare complete light shows and to recall them by the push of a button.

*Individual step parameters*

- Unlike the chaser steps, every step of a sequence may have its individual parameters. The time, until the next step starts (STEP TIME), the x-fade time and the trigpoint may be different from step to step.

*GO MODES*

- The steps may be triggered via GO button, by SOUND INPUT, they may be recalled by manual x-fade or on automatic mode with an internal timer and preprogrammed or with an adjusted step time.

*Overwriting during playback*

- GO MODE, STEP TIME and FADE TIME of the single steps can be set manually to overwrite the programmed parameters.

*Linking steps to memories or chaser programs*

- Standard chaser programs and memories can be recalled as one step of the sequence.

- A sequence menu lists the actual and next steps

Programming and modifying a sequence works similar to the chaser programs.

### 6.1 Programming of sequences

Saving new steps works like saving new chaser steps.

#### 6.1.1 New sequence steps

*Programming sequence steps*



STORE button

Matrix can be set

(Prepare your stage plot like on programming memory)



SEQUENCE button 1 - 16

Selecting one of the 16 sequence buttons.

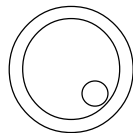


Programming of sequence steps

<b>INSERT</b>	<b>DELETE ALL</b>		<b>SINGLE</b>
1.0 2.0 2.1 2.2 3.0	<b>PROGRAM SEQUENCE</b>		<b>STEP TIME</b> 1.00 sec
	SEQUENCE: 1		<b>LINK FADE</b>
	STEPS: 5 FREE: (94770)		<b>STEP FADE</b> 0.00 sec
	<b>NO NAME</b>		<b>STEP TRIG</b> 0 %
	6	STEP : 3.5	

Compared to programming a chaser step the following functions are available:

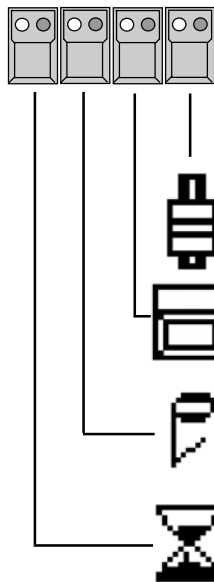
Individual and freely adjustable step numbers



**ENCODER 2**

Each step has its individual number from 0.0 up to 99.9. Like a name this number will stay with the step during all copy and move operations.  
Encoder wheel: first digits  
Encoder ring: digits after the decimal point

Different GO MODES

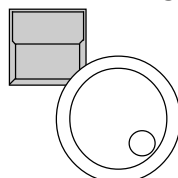


**STEP MODE buttons at the Sequence Playback**

Sets the GO MODE for this step, which marks, how the step will be recalled when running the sequence. The selected mode is shown by the LED inside its respective button and is displayed on top of encoder 1.

- MAN FADE**  
Manual x-fade via the X-FADER in the sequence area.
- GO BUTTON**  
The step has to be recalled by the GO button.
- EXT SOUND**  
The step will wait for a sound impulse.
- SET RATE**  
The step will be recalled automatically, as soon as the STEP TIME of the last step runs out.

STEP TIME for timed step following



**STEP TIME and ENCODER 3**

Sets the time between this step and the start of the next one, if the next one is on GO MODE "SET RATE".

All other functions work exactly the same way they do on chaser programming.

*Deleting the old program*



**DELETE ALL**

Clears all steps of the sequence.

*Stop with the last step*



**SINGLE**

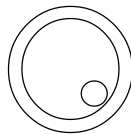
Inverted:

The sequence will stop automatically when reaching the last step

Normal:

The sequence will return to step one and will go on running.

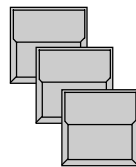
*Selecting one step*



**Encoder 1**

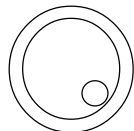
Selecting a step number.

*Setting the step parameters*



**STEP FADE or  
STEP TRIG or  
STEP TIME**

Unlike on chaser steps, the step parameters will be stored individually for every single sequence step.



**ENCODER 3**

Changing the value of the selected parameter.

In case LINK FADE is selected, the fade time is set in percentage of the step time

*Saving the step*



**INSERT**

Shifts the selected step and all following steps one step back and inserts the new stage scene at the selected place.



**STORE button**

Overwrites the selected step by the new stage plot. The total number of steps remains unchanged.

## 6.2 Playback of sequences

### Starting a sequence

A sequence is started by its respective button like any other memory.

By any memory or chaser, recalled by its respective button after the start of the sequence, the sequence may lose its priority. If the memory was a selective one, some of the channels may still be available for the sequence, if it was a standard memory with fully selected STORE MATRIX, the following steps of the sequence will no longer have any effect on stage.

### Red LED in the Step Mode buttons

A red LED in one of the STEP MODE buttons indicates, how the next step has to be recalled. The internally stored step mode is indicated by the green LED's, but has no effect as long as a red one is on.

### Green LED in the Step Mode buttons

Green LED's: Only if none of the red LED's is on, the next step is triggered by the internally stored step mode.

### GO buttons

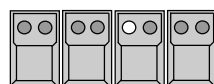
GO+ and GO- buttons are always working, like the EXTERN GO input via 1/4" jack on the back panel does.

### Set Time LED

SET TIME LED: if the LED is on, the x-fade time between the steps can be set by the fader. The internally stored x-fade time of the steps has no effect.

### 6.2.1 Playback of a sequence by GO button

#### Sequence via GO button



"GO BUTTON" Step Mode selected  
(red LED on)



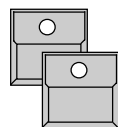
SEQUENCE button 1-16

The LED in the button shows the selected sequence..



GO+ button

Recalls the first step of the sequence



GO+  
GO+

Recalls the steps one by one.



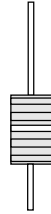
GO- button

Recalls the previous step.

Note: When using standard memories, the GO- button will really recall the right stage picture. When using selective programmed steps, recalling a step via GO- may have another effect than recalling this step via GO+.

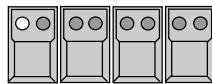
### 6.2.2 Playback of a sequence with adjusted step rate

*Sequence playback with adjusting rate via fader*



**RATE Fader**

Sets the sequence speed between 0.1 and 10 seconds per step. The yellow LED inside the SET RATE button shows the selected speed.



**"SET RATE" Step Mode selected**  
(red LED on)



**SEQUENCE button 1-16**

The first step will be recalled as soon as the sequence button is pushed. All other steps will follow automatically with the adjusted time.

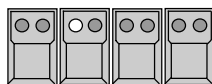
### 6.2.3 Playback of a sequence triggered by sound input

On the backpanel the SCANCOMMANDER offers a 1/4" jack for sound signal input. The 3 potentiometers on the top of the front panel can be used to select a trigger signal. The HOLD LED shows the trigger signal leaving the filter as it is triggering the sequence.

*Triggering a sequence via Sound input*



**SEQUENZ button 1-16**



**"EXT SOUND" Step Mode selected**  
(red LED on) The steps of the sequence is recalled by the sound input.

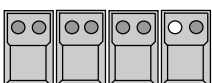
### 6.2.4 Manual x-fade between sequence steps

X-FADER has to be moved to one of the end positions.

*Manual x-fade step to step (from version 1.40)*



**SEQUENZ button 1-16**



**"MAN FADE" Step Mode selected**  
(red LED on)



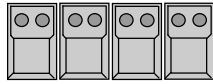
**X-FADE fader at the sequence section**

Moving the fader will fade between the steps. As soon as the fader reaches the end of its travel, the next step will be loaded for x-fade.

Moving back before the end of its travel is reached will return the output to the last scene.

### 6.2.5 Playback of a sequence with programmed STEP MODE

*Running a sequence with internally stored STEP MODE*

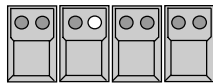


STEP MODE buttons switched off  
(All red LED's off)

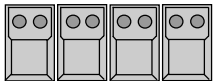


SEQUENZ button 1-16

*Green LED's indicating internal STEP MODE*



GREEN LED's inside the SET MODE buttons  
Show the step mode of the next step, as it was set when programming the sequence. If one of the green LED's is on, the sequence waits for a trigger signal. By the GO button the next step can be recalled any time.



No green or red LED inside the SET RATE buttons  
The next step will follow automatically as soon as the STEP TIME of the last step runs out.  
Note:  
The yellow LED inside the SET RATE button will not show the internally programmed STEP TIME, but will always show the rate set by the fader.

### 6.2.6 Enable Sequence

*Sequence recall without going back to step 1*

The ENABLE function like on Enable Chaser allows a sequence to resume control of all channels without starting at step 1. A sequence, which has lost access to some channels because of a direct access or memory recall, can now continue as programmed.



ENABLE button.

Keep button pressed ...

... and simultaneously press ...



Sequence button of the actual sequence

The next step of the sequence is enabled to control all channels according its step matrix.

### 6.2.7 Sequence playback menu

*Sequence playback menu*

The MENU button at the sequence section swaps the display to list information about the running sequence program.



**MENU button**

recalls the menu with number and name of the running program at the top line. The total number of steps is shown in brackets.

SEQ. 1		NAME				NEXT
STEP		TIME	FADE	TRIG	NAME / MATRIX	
02	2.0	5.075 Sec	0.0	00%	[Matrix Icon]	
03	2.1	0.075 Sec	15	00%	A/10 COLOR CHASER 1	
04	3.0	12.00 Sec	1.5	50%	[Matrix Icon]	
05	3.1	0.00 Sec	0.0	00%	[Matrix Icon]	
GO		[Matrix Icon]				▲

Line one lists the step which was recalled last. Line 2 to 4 show the next steps. Each line shows step number, indicator of go mode, steptime, fadetime and triggerpoint.



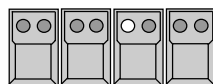
Right hand a small graphic shows the matrix of the steps (see 4.3), indicating which channels get affected by this step.

If the step is a LINK MEMORY step, the number and name of the memory is listed instead of the graphic.

Left side on the bottom line the go mode is shown on black background. If the next step is a timed automatic, the remaining time is listed on the display.

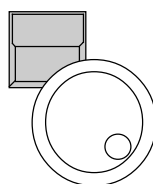
The graphic right on the bottom line shows which channels are still controlled by the Sequence. As soon as this graphic is empty and all channels are overwritten by any memory or preset playbacks - the sequence has no more effect on stage.

*Changing step order by jumping to another step number*



**GO BUTTON Step Mode or  
MAN FADE selected (red LED on)**

Stops the running sequence. NEXT is displayed right on top of the display.



**NEXT button pressed and simultaneously  
ENCODER 3**

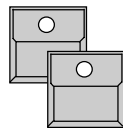
Via the encoder any step number can be selected to be the next step on the sequence.

### 6.3 Modifying a sequence

All data of a sequence are data of single steps. They can be changed as soon as these steps are selected. Global changes of speed or fade time, as it is possible on the chaser programs, can be done by overwriting the stored values via SET RATE and SET FADE.

#### 6.3.1 Changing sequence step times

Changing step parameters



EDIT button

Sequence button 1-16

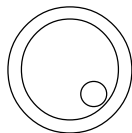
<b>MODIFY</b>			<b>SINGLE</b>
1.0 2.0 2.1 2.2 3.0	<b>EDIT</b> <b>SEQUENCE</b>		<b>STEP TIME</b> 2.00 sec
	SEQUENCE <input type="text" value="1"/>		<b>LINK FADE</b>
	STEPS: 5 FREE: (94770)		<b>STEP FADE</b> 1.00 sec
	<b>NAME</b>		<b>STEP TRIG</b> 0 %
<input type="text" value="4"/>			

SINGLE Mode



SINGLE

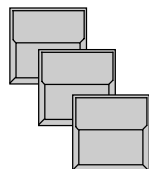
stops the sequence with the last step.



ENCODER 1

Selection of a step. The stored parameter of this step are displayed and can be modified.

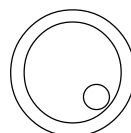
Selecting a parameter



STEP TIME or  
STEP FADE or  
STEP TRIG

Selection of one of the parameters.

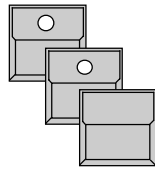
Changing the value



ENCODER 2

Changing the value of the selected parameter. In case LINK FADE is selected, the fade time is set in percentage of the step time

### 6.3.2 Changing step sequence and STEP MODES



EDIT button

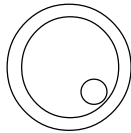
Sequenz button 1-16

MODIFY

The selected step are recalled to stage and the square MODIFY is displayed inverted.

MODIFY	MAKE BLOCK	LINK MEMORY	EDIT MATRIX
1.0	<b>EDIT SEQUENCE</b>		<b>DELETE STEP</b>
2.0	SEQUENCE: <b>A 25</b>		<b>DOUBLE STEP</b>
2.1	STEPS: 5		
2.2	FREE: (94120)		
3.0	<b>NAME</b>		<b>RENAME STEPS</b>
<span>3</span> <span>STEP :</span> <span>2.1</span>			

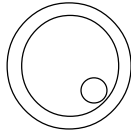
*Testing the sequence steps*



Encoder 1

Scrolls through the list and recalls the steps to stage.

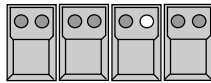
*Changing the step numbers*



ENCODER 2

Changes the step number. The ring is changing the digits after the decimal point.

*Changing the STEP MODE*



STEP MODE buttons in the sequence section

Change the STEP MODE of the selected step. The green LED's and the display show the selected mode.

*Erasing a step*



DELETE STEP

Clears the selected step and shifts all following steps one step ahead.

*Creating a new step*



DOUBLE STEP

Makes a copy of the selected step and inserts this copy right in front. The new step may now be modified or linked to a memory (>>6.3.4 Recalling a memory or chaser as step of a sequence).

*Clearing step numbers*



RENAME STEPS

Numbers all steps consecutively.



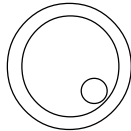
Starting block operations



1. x MAKE BLOCK

Inverts the display square. The block operation mode starts, where a complete set of steps can be handled simultaneously.

Selecting steps



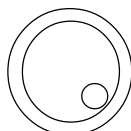
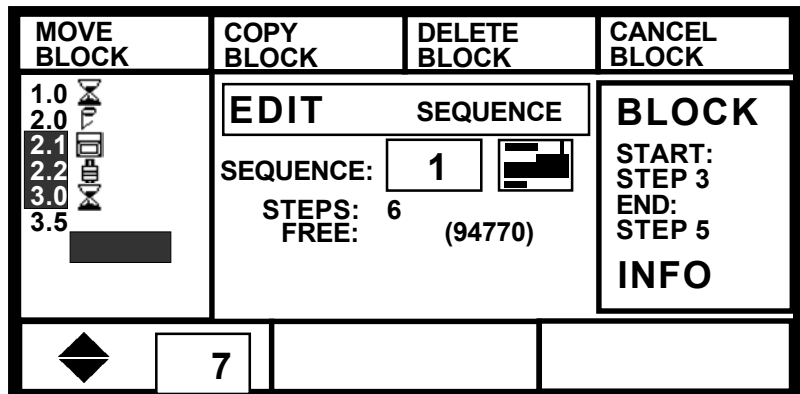
Encoder 1

Selects steps for the following block operations. The numbers of the selected steps get inverted.



2. x MAKE BLOCK

The sections on top of the display show the different block operations available.



Encoder 1

Selects a new step number.

Four different block operations



MOVE BLOCK

Moves the sequence of steps, marked as block, to the new address. The total number of steps remains unchanged.



COPY BLOCK

Makes a copy of all the steps in the block and inserts these steps at the new address



DELETE BLOCK

Deletes all steps marked as block and shifts the following steps ahead.

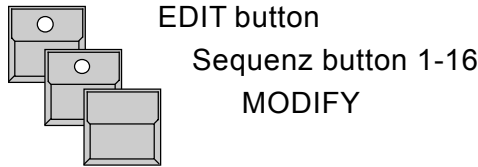
Cancelling block mode



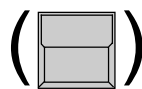
CANCEL BLOCK

Cancels the block operation mode and returns to the modify menu.

### 6.3.3 Changing step matrix and levels



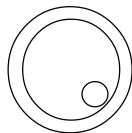
MODIFY	MAKE BLOCK	LINK MEMORY	EDIT MATRIX
1.0	<b>EDIT SEQUENCE</b>		DELETE STEP
2.0	SEQUENCE: <b>A 25</b>		DOUBLE STEP
2.1	STEPS: 5		
2.2	FREE: (94120)		
3.0	<b>NAME</b>		RENAME STEPS
<span>3</span> <span>STEP :</span> <span>2.1</span>			



#### EDIT MATRIX

Edit Matrix has to be inverted, if the STORE MATRIX will be checked or modified within the next steps.

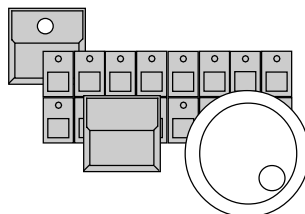
Testing single steps



#### Encoder 1

Scrolls through the list of steps and recalls the steps on stage.  
Note: Scrolling backwards through a selective sequence with different STORE MATRIX selections from step to step, will not produce the same stage scene as scrolling forward.

Changing channel values and the matrix of a step



#### Feature button

#### Scan Selection

Preset button or Encoder  
Changing channel values via direct access.



#### 1. x STORE button

If EDIT MATRIX was selected, it will show the STORE MATRIX of this step.



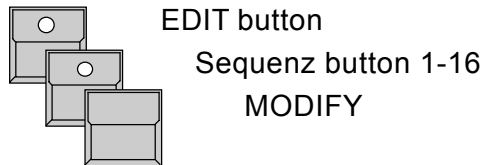
#### 2. x STORE button

Saves the modified step and returns to the modify mode.

### 6.3.4 Recalling a memory or chaser as step of a sequence

*Memories and chasers as steps of a sequence*

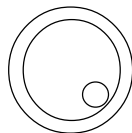
Memories and chasers of the playback section can be recalled as a step of a sequence. This saves programming time and storage capacity.



*LINK MEMORY operation*

MODIFY	MAKE BLOCK	LINK MEMORY	EDIT MATRIX
1.0	EDIT SEQUENCE		DELETE STEP
2.0 A/01	SEQUENCE: A 25		DOUBLE STEP
2.1 B/15	STEPS: 5	(94120)	
2.2	NAME		RENAME STEPS
3.0			
◀ 3		STEP: 2.1	

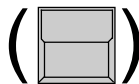
*Selection of a step number*



ENCODER 1

Selection of the step, the memory will be linked to.

*Creating a new step*



DOUBLE STEP

Creates a new step which can be linked to the memory without deleting any step.

*Linking the step to the memory section*



LINK MEMORY

Switching on: (block inverted)

Clears the channel values stored at this step and links the step to a memory. Within the step list in the display a memory number is shown for this step.

Switching off: (block no longer inverted)

Clears the link to the memory and leaves the step as a blind step without any channels selected in its matrix.

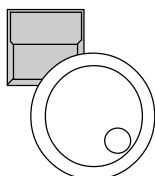
*Selecting a memory or chaser*



MEMORY or CHASER button / PAGE A - D

Selection of a memory by its playback button.

*Setting speed, fade time and trigpoint*



MODIFY switched off

ENCODER 2

The speed of a linked chaser, the x-fade time and trigpoint can be set by the encoders.

## 7. REMOTE

The MA SCANCOMMANDER features several remote input facilities. The different incoming signals can be linked to the playback functions of the board.



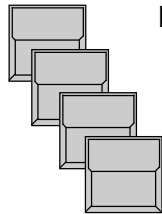
REMOTE button in the Top Menu

The display switches to the REMOTE Top Menu.

REMOTE Top Menu

MIDI	TOUCHBOA. MENU	DMX MENU	SMPTE MENU
MIDI IN ON/OFF		NO EVENT	
SMPTE ON/OFF		NO EVENT	
TOUCHBOA. ON/OFF		NO EVENT	X X X X X X X X X X X X X X X X
DMX ON/OFF		NO EVENT	
X X			

Switching remote inputs on and off



MIDI IN ON/OFF

SMPTE ON/OFF

TOUCHBOARD ON/OFF

DMX ON/OFF


An inverted block indicates, that the appropriate input is activated. MIDI and SMPTE inputs can not be active at the same time.


Indicating incoming remote signals

NO EVENT
X X X X X X X X X X X X X X X X

With MIDI the last incoming signals will be listed in the display. With DMX and Touchboard inputs, small icons show the actual status of the input channels.

X Input Channel is not connected to any function.

 Input channel controls fader. Inverted icon shows the value of the incoming signal.

 Input channel controls button. Icon inverted indicates button active.

Across the top of the REMOTE Menu are four buttons which activate the remote initialization menus.

## 7.1 Remote via Touchboard

### 7.1.1 Input signal

*Touchboard input*

Located on the SCANCOMMANDERS backpanel is a 25 pin SUB-D connector (female) which can be used to interface a standard 16 channel touchboard.

Pin 1-16 : Input channel 1 to 16

Pin 25: Ground.

The touchboard can only be used to control on and off functions.

0 to +2 Volt : Off +5 to +15 Volt : On.

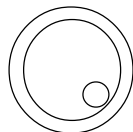
### 7.1.2 Assigning board functions



*List of input patches*

DELETE ALL		DELETE SINGLE		EDIT	
1	MEM . A / 01	9			
2	MEM . B / 15	10			
3		11			
4	MASTER A	12			
5		13			
6		14			
7		15			
8		16			
<b>SELECT</b>					

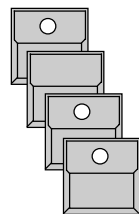
*Selection of an input channel*



Encoder 2

Selecting one of the input channels 1 to 16 (block is displayed inverted)

*Linking the input to one of the playback functions*



Memory button or

Brightnessmaster flash button

Sequence button 1 - 16 or

GO button

Links the selected function to this input channel.



QUIT button

Returns to the REMOTE top menu

*Activating and terminating the remote input*



TOUCHBOARD ON/OFF

Switches the remote input on and off.

## 7.2 Remote via DMX input

### 7.2.1 Input signal

*Daisy chaining a DMX signal*

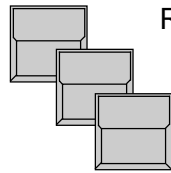
The male DMX 512 input XLR connector on the backpanel can be used to mix the signals of any lighting console with the control data of the MA SCANCOMMANDER and send them to the stage on one DMX line. For any channel which is controlled from both consoles simultaneously, the two values get compared and the highest level will be sent to stage.

*Remote via DMX*

In addition, up to 24 DMX 512 input channels can be used to remote control single functions on the SCANCOMMANDER.

The pin layout for the DMX 512 input connector conforms with USITT protocol. Pin 1 = Ground, Pin 2= Data - , Pin 3 = Data +

### 7.2.2 Assigning board functions

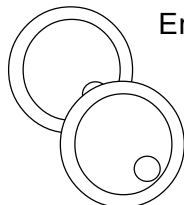


REMOTE button in the TOP MENU  
DMX MENU  
EDIT

*List of input patches*

DELETE ALL		DELETE SINGLE		EDIT	
22	MEM . A / 04			-	--
23	MEM . A / 05				
34	MASTER A				
40	MASTER B				
-					
SELECT			DMX 23		

*Selection of an input channel*



Encoder 1  
Selection of one of the 24 squares (inverted)  
Encoder 3  
Selection of a DMX input channel.

*Linking to one of the playback functions*



Playback buttons (the same as on remote via touchboard)  
Links the selected function to the selected DMX channel.

*Activating and terminating the remote input*



DMX ON/OFF at the Remote top menu  
Switches the remote input on and off.

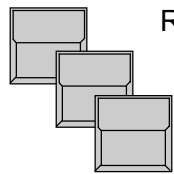
## 7.3 MIDI

### MIDI Sequencer

The SCANCOMMANDER enables to record playback commands like recalling memories, chasers, sequences and GO button pushes on to a MIDI sequencer. During playback of the sequencer, the SCANCOMMANDER will receive these commands as soon as the MIDI input is activated.

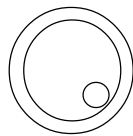
### 7.3.1 Choosing the MIDI channel

#### Selecting a MIDI channel



REMOTE at the Top Menu  
MIDI

MIDI IN or MIDI OUT will be displayed inverted.



Encoder 1-3

Selection of one of the MIDI channels 1-16.

#### Activating and terminating the remote input



MIDI IN ON/OFF in the Remote top menu

Switching on and off the MIDI input. (MIDI output works permanently.)

#### MIDI Data

The Scancommander uses Control Change Data exclusively.

#### Commands:

The command 1011nnnn (Bn hex) (nnnn=MIDI channel) will always be sent as status byte at first.

Again: "B" means Control Change, "nnnn" the MIDI Channel.

The following two bytes are the data bytes:

Command	1.-	2. Data byte	
push Memory button A1	:00	+ 00	(Memory A1)
etc.....	etc...	etc...	etc..
push Memory button A30	:00	+ 29	(Memory A30)
push Memory button B1	:00	+ 30	(Memory B1)
etc.....	etc...	etc...	etc..
push Memory button B30	:00	+ 59	(Memory B30)
push Memory button C1	:01	+ 00	(Memory C1)
etc.....	etc...	etc...	etc..
push Memory button C30	:01	+ 29	(Memory C30)
push Memory button D1	:01	+ 30	(Memory D1)
etc.....	etc...	etc...	etc..
push Memory button B30	:01	+ 59	(Memory D30)
push Sequence button 1	:02	+ 00	(Sequence 1)
etc.....	etc...	etc...	etc..
push Sequence button 16	:02	+ 15	(Sequence 16)
push Go+ button	:03	+ 00	(Go+)
push Go- button	:03	+ 01	(Go-)

## 7.4 Master-Slave Operation

*Controlling more than 16 scans*

When controlling more than 16 scans, two Scancommander or an additional Extension unit (see 7.6) can be linked in a master-slave mode. All operations are controlled via the master board, at the slave only the display and the single scan selection buttons keep on working.

*Installation for master-slave operation*

### 7.4.1 Installation

MIDI OUT connector of the master has to be connected to MIDI IN at the first slave unit.

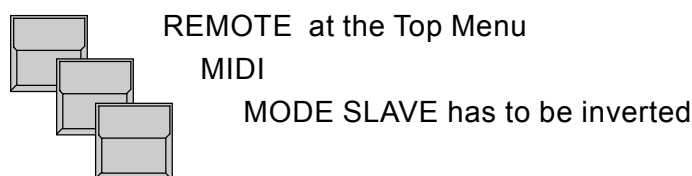
More slaves can be added using the MIDI THRU port of the previous slave

The DMX output of all coupled units can be used as separate DMX lines. Via the DMX input and by patching all scans to different DMX address numbers, the control signals of more than one Scancommander can be send on one DMX line.

*Activating the couple mode at Remote MIDI*

### 7.4.2 Starting the couple mode

The first step is to prepare the slave units



The last step is to set up the master board via REMOTE - MIDI - MODE MASTER. If a SLAVE is used with a software version smaller than 4.20 it is then really necessary to press the button "Mode: Old master".

The following RESET will send all necessary data from the master to all slave units. If any slave comes later than the master, it will wait for a master reset (lowest display button left side or switching off and on the master power supply).

### 7.4.3 Working on master-slave mode

As far as the setups are not done before starting the couple mode, the first steps will be SETUP LAMPTYPE, DMX and MOVEMENT.

*Transfer of all functions to the slave unit*

All functions including trackerball movements, group selection and brightness master are send from the master to the slave units.

Just the single scan selection button have to be operated at the according units. To make sure that during DMX PATCH and MOVEMENT SETUP only one scan is handled at a time, all other scans have to be deselected manually.

Instead of a second Scancommander, a 19" Scancommander Extension can be used as slave (see 7.6).



## 7.5 SMPTE TIME CODE

*SMPTE and EBU Time Code*

Complete shows can be synchronized via Time Code. The Scancommander works with 24 to 30 frames per second. Selecting the right frame number will be done automatically as soon as a Time Code signal is supplied or can be selected manually.

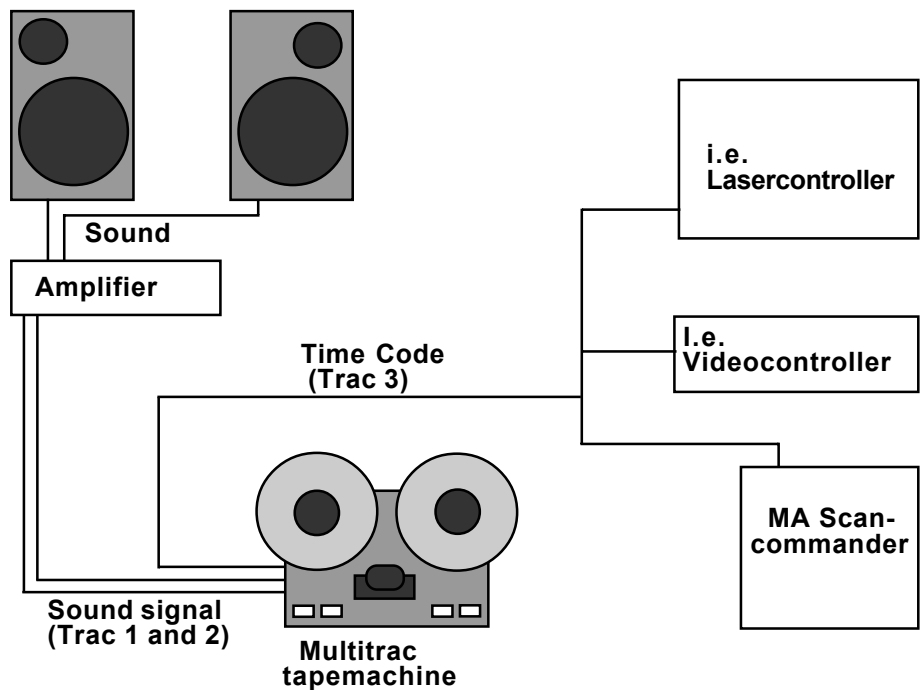
### 7.5.1 Time Code Network Technics

*Time Code synchronization*

Time Code synchronization can be used to recall the programs of one or more controllers simultaneously to a recorded music.

SMPTE and EBU Time Code are digitally coded time informations, which for example can be recorded to a separate track of a tape machine. The frequency domain covers 1 to 2 kHz. Usually this Time Code will be recorded when preparing the music for a presentation, but it can also be added afterwards by any sound studio. When using stereo sound it is necessary to have at least a third track on the machine, for preparing a Time Code show .

*Time Code generation*



*Synchronized playback*

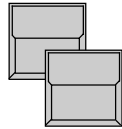
During playback of the tape the Time Code signals are sent to all connected controllers. Each device has stored in memory, which program has to be recalled at which time.

The Time Code input at the Scancommander is on the 1/4" jack at the backpanel.

### 7.5.2 Live recording of a Time Code show

*Recording a show*

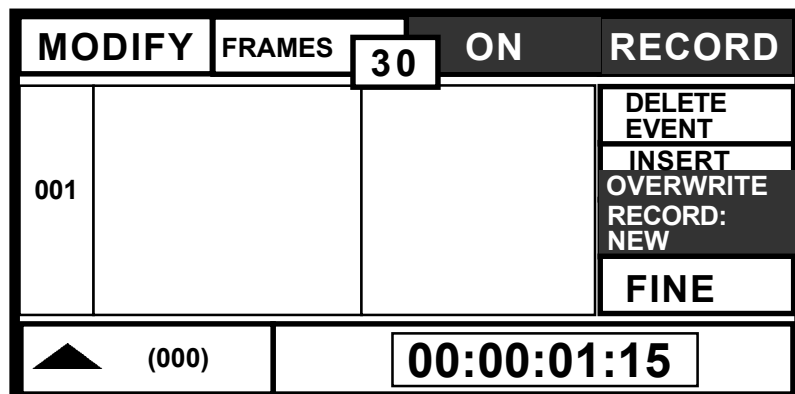
The RECORD mode enables to type in the program during running Time Code.



REMOTE at the Top Menu  
SMPTE MENU

The display shows the SMPTE Menu with a list of the programmed events.

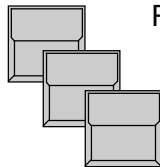
*SMPTE menu*



ON - OFF SMPTE

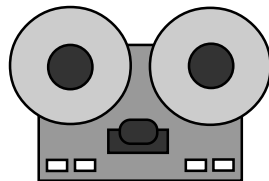
Parallel to the ON/OFF button in the Remote Top menu this button will switch on and off the Time Code input.

*Select record mode*



RECORD  
OVERWRITE mode and  
RECORD : NEW selected (blocks inverted)

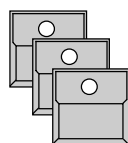
*Start Time Code*



Tape playback start

The Scancommander shows the incoming time on the display as  
hours : minutes : second : frames.

*Record events*



Memory, Chaser, Sequence, Enable, GO+ and GO-

Running the show synchronously to the music, the Scancommander lists all playback commands with their exact time in the display.

NOTE: The brightness masters are not recorded. Fading in and out the brightness on Time Code shows has to be done by recalling appropriate memories or steps.

List of Time Code events

<b>MODIFY</b>		<b>FRAMES</b>	<b>30</b>	<b>ON</b>	<b>RECORD</b>
009	00 : 00 : 10 : 05	MEM. A/02		DELETE EVENT	
010	00 : 00 : 10 : 15	MEM. A/03		INSERT	
011	00 : 00 : 11 : 02	SEQU. 01		OVERWRITE	
012	00 : 00 : 11 : 03	GO +		RECORD: NEW	
013	00 : 00 : 12 : 15	MEM. B/02		FINE	
▲ (053)			00:00:12:23		

Terminate record mode



RECORD

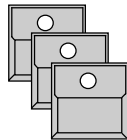
Switching off the button will terminate recording.

Beside recording a new show, the Scancommander offers different modes to complete or replace parts of an already stored show. Three options can be selected when recording (Time Code ON and RECORD selected) :

Insert additional events



INSERT mode selected

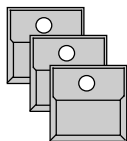


Memory, Chaser, Sequenz, Enable, GO+ and GO-  
The already stored show is played back synchronously to the music and every new playback command, selected by its button, will insert a new event.

Overwrite parts of a show



OVERWRITE -  
RECORD : NEW mode selected  
(like explained for recording a new show)

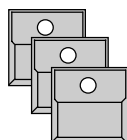


Memory, Chaser, Sequenz, Enable, GO+ and GO-  
Within the recorded period all old events are erased. To keep parts of a show, RECORD has to be switched off before the running Time Code reaches this period.

Overwrite starting with the first modification



OVERWRITE -  
RECORD : PRESET mode selected.



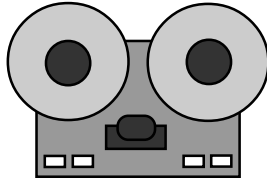
Memory, Chaser, Sequenz, Enable, GO+ and GO-  
The old show is played back and keeps unchanged. The first push of a playback button starts the record mode and all following events are erased until Record is switched off.

### 7.5.3 Time Code Playback

*Playback start via taperecorder*



Switch off RECORD mode



Tape machine

When starting a new playback of the tape, the Time Code will be sent to the controllers again. As long as the Time Code input is active, the Scan-commander will recall the events as they are stored inside.

The Remote Top menu shows the incoming time and the last event. The SMPTE menu shows the actual section of the event list.

*Unreadable or missing Time Code signal*



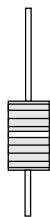
in the SMPTE menu

The input is waiting for a Time Code signal.

NOTE: Never record any event while STOP is displayed. The Scancommander now records more than one event on the last frame and will clear the SMPTE show because of illegal timing.

#### NOTE !

*Brightness gets controlled by the master faders of the desk*



Master Fader

As the brightness masters are not recorded on Time Code, they must be up during playback. Optionally the SETUP function "MASTERS ALL 100%" can be switched on.

*Periodical playback*

Playback of Time Code synchronized shows recommend no further operation at the Scancommander. Every time the tape starts to send the Time Code, the Scancommander will recall the programmed events. Even after switching off and on the power supply, the Scancommander will stay in the Time Code playback mode.

*Overwriting a running Time Code show*

During a running Time Code show, all functions of the Scancommander stay active and can be used for manually overwriting the program. Only a GO+ or GO- command of the event list will have no effect, if the running sequence was started manually. All other events will work as if the according playback command was selected directly. To stop the Time Code show and go on manually, the Time Code input has to be switched off. Returning to Time Code any time will continue the show with the events, stored for this section.

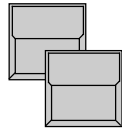
*Starting playback in the middle of a show*

A Time Code show can be started at any point of the tape. Using selective memories or sequences this may cause changes in the effect on stage.

(GO commands do not recall well defined stage pictures, but do just trigger the last selected sequence to go to the next step).

### 7.5.4 Modifying a Time Code program

Beside the Record mode, single events of a show can also be created or modified step by step.



REMOTE

SMPTE MENU

The display shows the SMPTE menu with a list of the programmed events.

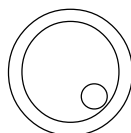
Modify mode



MODIFY (block displayed inverted)

<b>MODIFY</b>		<b>FRAMES</b>	<b>30</b>	<b>OFF</b>	<b>RECORD</b>
009	00 : 00 : 10 : 05			MEM. A/02	DELETE EVENT
010	00 : 00 : 10 : 15			MEM. A/03	INSERT
011	00 : 00 : 11 : 02			SEQU. 01	OVERWRITE
012	00 : 00 : 11 : 03			GO +	RECORD: NEW
013	00 : 00 : 12 : 15			MEM. B/02	<b>FINE</b>
014	00 : 00 : 13 : 15			MEM. A/05	
015	00 : 00 : 15 : 02			GO +	
016	00 : 00 : 18 : 03			GO -	
017	00 : 00 : 18 : 15			MEM. A/01	
▲ (053)		00:00:12:15			

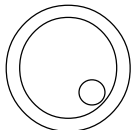
Selecting a single events



Encoder 1

Scrolls through the list of the programmed events. Scrolling up will recall the events step by step.

Changing the event time



Encoder 2 and 3

Change the time of the selected event.



FINE

When FINE is selected, the encoder will change the time in single frames or minutes, otherwise they will do a course adjustment.

**END OF RANGE**

Display

The time of an event can only be selected within the period of the last and the following event.

*Deleting a single event*



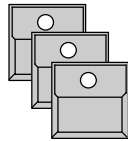
**DELETE EVENT**

The selected event will be erased from the list.

*Changing the playback command of a single event*



**OVERWRITE mode selected:**

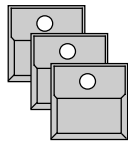


Memory, Chaser, Sequenz, Enable, GO+ and GO- button:  
The selected playback will substitute the old command.

*Inserting a new event*



**INSERT mode selected:**



Memory, Chaser, Sequenz, Enable, GO+ and GO- button:  
One frame before the selected event the playback command will be inserted as a new event.

*Error warning*



Display

There is no frame available to insert a new event.

**MAKE BLOCK operations:**

Like on chaser or sequence modify, it is projected to offer block operations also on the Time Code list. This will be added within one of the next updates.

## 7.6 The Scancommander Extension Unit

The SCANCOMMANDER EXTENSION is a 19" unit with

- display with 12 display buttons and one encoder
- 16 scanselection buttons,
- cue card slot
- keyswitch
- all input and output connectors of a Scancommander

### MASTER-SLAVE mode

Using the Extension as slave it will be switched to slave mode like a Scancommander. As noted in 7.4 only the display and the single scan selection buttons will work.

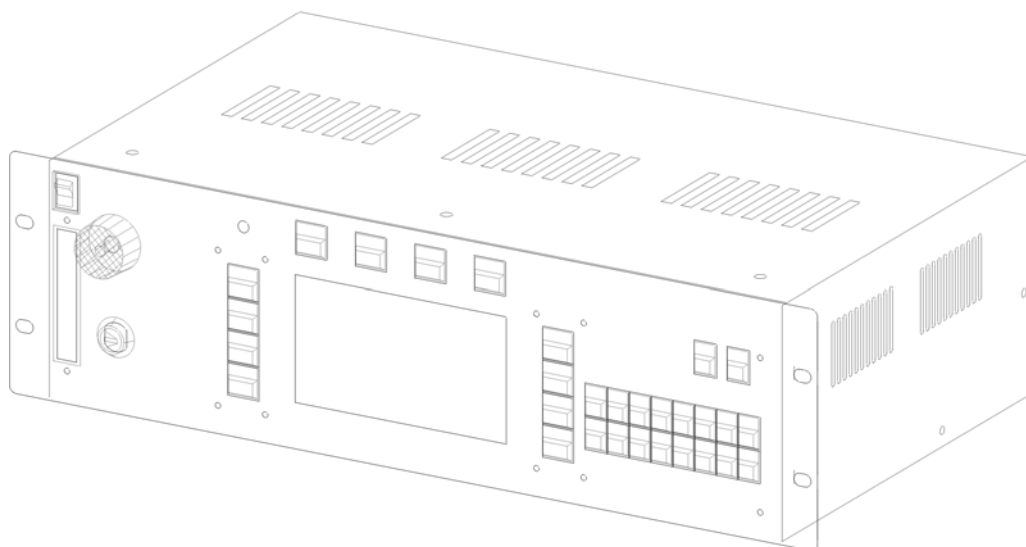
### REMOTE operation (DMX, MIDI, Touchboard)

Programs can be set up at a Scancommander and transferred to the Extension via the cue card. The remote inputs can be used to recall the playbacks. As the Extension unit has no brightness master faders, the SETUP function "MASTERS ALL 100%" has to be switched on as long as the masters are not remote controlled via DMX. All necessary steps to start the remote operation can be done at the Extension unit directly.

### STAND-ALONE operation (SMPTE Time Code)

For playback of SMPTE Time Code synchronised programs the Extension can be used as a stand-alone unit.

(SETUP function "MASTERS ALL 100%" has to be switched on).



## 8. Dimmer and color changers

*Dimmer and color changer*

In addition to the channels for the 16 scanners, the MA SCANCOMMANDER offers additional 96 channels to control dimmers, color changers or any other DMX receiver. Like the features of the scans, these channels can be selected via EXTRA 1 and EXTRA 2 and can be controlled via encoder or presets.

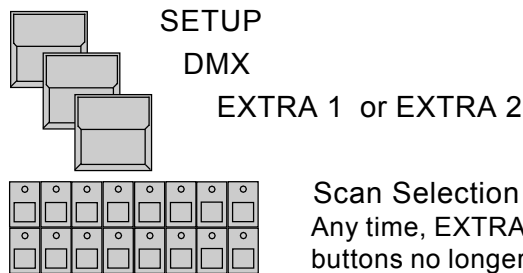
To include these EXTRA channels in any memory, chaser or sequence step, they have to be selected in the STORE MATRIX when storing any scene.

### 8.1 Assigning EXTRA channels

*Initialization by setting a DMX address*

Because the EXTRA channels control only simple functions, there is no need for a major initialization process as with full function scanner. The units get initialized as soon as a DMX address is registered in the SETUP DMX menu. EXTRA 1 and EXTRA 2 can each address 16 units with up to 3 channels each. The exact number of channels per unit is automatically adjusted according to the free DMX channels following the selected address.

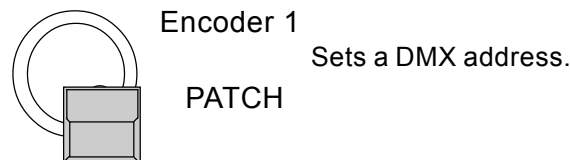
*Selection of the unit number*



**Scan Selection**

Any time, EXTRA 1 or EXTRA 2 are selected, the 16 buttons no longer represent the 16 scans, but the 16 units of the EXTRA 1 or 2.

*Selection of a DMX address*



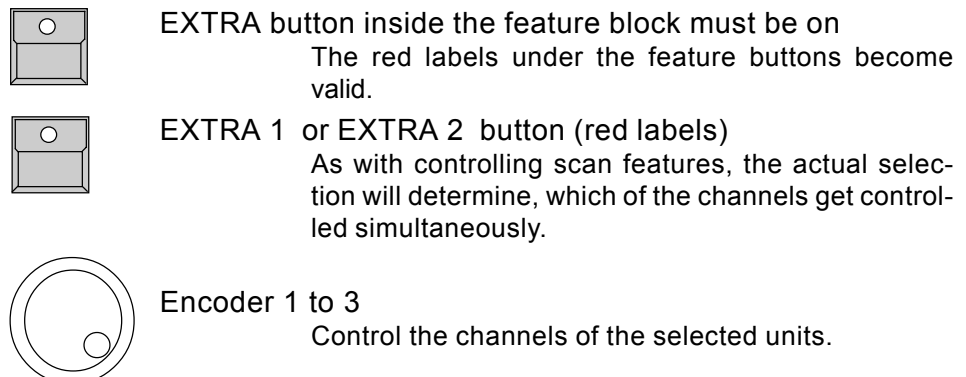
Sets a DMX address.

*Number of channels per unit*

Each EXTRA unit may have up to 3 channels (number in brackets). The actual number will be adjusted automatically according to the free DMX channels following the selected address.

### 8.2 Direct access to EXTRA channels

*EXTRA 1 and 2 on direct access*



EXTRA button inside the feature block must be on  
The red labels under the feature buttons become valid.

EXTRA 1 or EXTRA 2 button (red labels)  
As with controlling scan features, the actual selection will determine, which of the channels get controlled simultaneously.

Encoder 1 to 3  
Control the channels of the selected units.



EXTRA 1 and EXTRA 2 groups

### 8.3 EXTRA groups and brightness master

EXTRA 1 and EXTRA 2 have their own groups.



STORE

Keep button pressed and select one of the EXTRA

and simultaneously



GROUP buttons A - H

Stores a group for the EXTRA selection.

During EXTRA 1 or EXTRA 2 in DIRECT ACCESS the group buttons recall the EXTRA groups instead of the scan groups.

When controlling color changer on EXTRA channels, this groups can be set to be not under the control of the master faders. On dimmer channels EXTRA can be set to be mastered by the fader.

EXTRA controlled via the brightness masters



SETUP

The display buttons right hand side allow the following settings:



The values on display will be send to stage independent from the master faders (color changer).

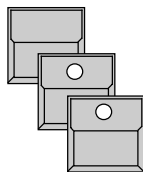


The values on display will be reduced according the setting of the group faders.

### 8.4 EXTRA presets

EXTRA 1 and 2 Presets

As on any scan feature, for EXTRA 1 and EXTRA 2 presets can be programmed and used for quick and direct access.



PRESET in the top menu

EXTRA turned on

EXTRA 1 or EXTRA 2

The display shows the \*ADJ.PRES\* EXTRA x Menu

Controlling color changers via EXTRA becomes very easy by using the presets. As with the color channel of the scans the different colours can be prepared and labelled in their display blocks.

Even controlling dimmer channels via EXTRA is more handy when certain values are stored as presets. For every EXTRA there are 4 pages offering 44 presets. As the value of the single channels may be different within a preset, complete lighting cues can be stored as presets.

*EXTRA 1 and 2 as part of  
playback programs*

*Programming the EXTRA  
1 and 2 via a standard  
lighting console*

*Playback of the  
composed memories*


**!! ATTENTION !!**

## 8.5 EXTRA channels in memories

EXTRA 1 and EXTRA 2 channels like any other scan feature can be selected in the STORE MATRIX.

By using selective programming, it is possible to program memories or steps, which control only the EXTRA channels, whereas other memories may control only the scans and keep the dimmers and color changers untouched.

Instead of setting the values for EXTRA 1 or 2 via the encoder wheels or presets, it is possible to set the values via a standard DMX console, connected to the Scancommanders DMX input.

1. The DMX output of the lighting console goes to the DMX input of the Scancommander, the Scancommander DMX output goes to stage.
2. EXTRA 1 or 2 units get patched to the same DMX addresses like the lighting board channels. The Scancommander will compare the incoming value and the Scancommander setting for the values and the highest will be send to stage.
3.  The DMX INPUT in the SETUP menu has to be selected
4. STORE  
Storing any memory or chaser step will take the DMX input values as set at the lighting console and will store it within the Scancommanders memory. The actual values at the Scancommander are ignored.
5. When modifying a picture via EDIT-MODIFY-STORE the Store will work as regularly.

After programming the memories, the lighting console can be disconnected and the memories can be recalled via the Scancommander.

To avoid clearing the EXTRA channel by any STORE operation, switch off "EXTRA X DMX INPUT" as soon as the lighting console is disconnected.

## 9. Utilities

### 9.1 Display index

Active special functions are listed in the Top Menu.

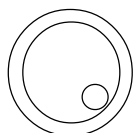
*Display index*

No index:	No special function active, trackerball switched off
MOUSE:SLOW	Trackerball working on high resolution
MOUSE:FAST	Trackerball working on low resolution
SINGLE	Scanselection set to single scan mode (change via OPTION button)
MIDI IN/OUT	MIDI Remote active
MASTER	Console operates in master mode (see 7.4)
00:00:15	SMPTE TIME Code input active

*Global modification of all running fades*

#### RUNNING FADE

+/- 00%



In the Top Menu encoder number two can be used to slow down or speed up all running fades simultaneously

*Indication of any fixed channels*

#### FREEZE/FOLLOW Active

When recalling any memory, chase or sequence step, single channels may be frozen via the FREEZE function or via MODE FOLLOW. Therefore the memory can not be reproduced completely. This restriction is displayed by a short alert showing "FREEZE/FOLLOW ACTIVE "(see 4.2.4 and 3.3.3)

## 9.2 Storage of programs

*Intern storage capacity of the SCANCOMMANDER*

The SCANCOMMANDER stores all programs internally. The number of scenes, which fit the storage capacity, depend on the size of the single scenes.

- Memories controlling scans with 4 to 6 channels will need less space than scans with 12 or more channels.
- Selective memories or steps only keep the data for the selected channels. This way they also save space.

Therefore the exact number of scenes, possible to store internally, ranges from 600 to more than 6000. The storage space still available is displayed by FREE:(.....) during any STORE operation. As soon as the limits are reached (Display shows: NOT ENOUGH MEMORY), some of the unused programs have to be cleared (see 9.3) or modified to selective programs.

### 9.2.1 Backup on to memory card

*Backup on cue card*

Beside the internal storage, programs can be stored externally on to cue card. Storing on a cue card can be done in sections, for example only SETUP data or only memory and chaser programs.

The SCANCOMMANDER will accept cue cards of the type ITT Star Card S-RAM from 32 to 256 KByte, but as accessories it is recommended to use a 256 KByte card.

The card fits into the slot on the upper left side of the frontpanel, the arrow on the card has to point to the left side.



#### BACKUP on the Top Menu

The SCANCOMMANDER changes to the backup menu and tests the card.

WRITE : ENABLED - PROTECTED

A small switch on the card can be used to protect the programs stored in the card.

FILES : ..... and FREE : (.....)

Number of files already saved on the card and freely available storage capacity.

New cards have to be formatted after adjusting the battery.

*Formatting the cue card (only for new cards - clears all data on card)*



#### FORMAT

A name can be set for the card via the keyboard.



#### OK.

Formats the card, clears all data on the card and prepares a file administration.

<b>ALL</b> (86254)	<b>PRESET</b> (16210)	<b>MEMORY</b> (34556)	<b>SEQUENCE</b> (512)
<b>MACROS</b> (512)	<b>TEST 1</b> 10.10.58	<b>256 K</b> 01 / 19 / 93	<b>SMPTE</b> (512)
<b>FORMAT</b>	<b>WRITE : ENABLED</b>		<b>SETUP</b> (5120)
<b>DELETE</b>	<b>FILES: 2</b>		<b>USER SCAN</b> 1536
<b>SAVE</b>	<b>FREE: (124233)</b>		<b>LOAD</b>

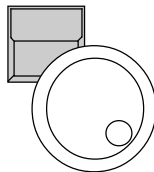
Selecting a section for backup operation



ALL / PRESET / MEMORY / SEQUENCE / SMPTE / SETUP

Selects the section to be stored or loaded. The according block is displayed inverted.

Save data to card



SAVE  
ENCODER 1

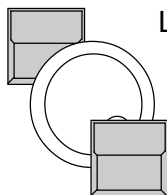
Scrolls through the list of files on card, available for the selected data type. ("....." offers to create a new file, to be named via keyboard.)



OK.

Saves the selected data section into the card with name, time and date of storing.

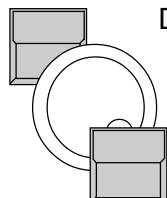
Load data from card



LOAD - Encoder 1 - OK

Loads all data of the selected file into the boards internal storage register and therefore overwrites the data, already stored in the desk.

Deleting a file on card



DELETE  
Encoder 1

Selection of one of the files on card

OK.

Deletes the file on card.

**!! ATTENTION !!**

The date of inserting a new battery should be noted on the cue card in order to replaced it after 1 year. When exchanging the battery the card will keep its memory for at least 30 second.

**Please remove the card from the desk as long as the card is not in use!**

## 9.3 Clearing programs

### CLEAR ALL

A CLEAR function allows to clear all programs within the Scancommanders intern memory.

Keep all four buttons on top of the display pressed down when switching on the Desk.

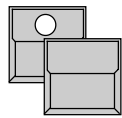


The Scancommander swaps to the CLEAR menu. Section by section the programs can be deleted. Every clear has to be reconfirmed by "OK" or the process can be stopped by "CANCEL".

By pressing the CLEAR ALL button all programs will be deleted simultaneously and all saved parameters will be reset to default values.

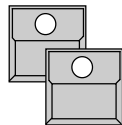
### Clear single memory, chase or step

Clearing a single memory is done by overwriting the old memory with a new one with completely cleared STORE MATRIX.



STORE button

CLEAR button in the feature section  
Clears the complete matrix.



Memory button

STORE button

Overwrites the old memory with a pseudo memory, containing no data.

Deleting a single chase will be done by STORE - CHASER - DELETE ALL in the program chase menu.

Deleting a single chase step can be done via EDIT - CHASER - MODIFY - DELETE STEP.

## 9.4 Keyswitch

### Protecting programs

The keyswitch right on top of the front panel allows to protect the programs against unauthorized modification.

#### ACCESS ALL

All functions of the Scancommander are available

#### LOCK PRG

All playback functions are available, programming or modifying pictures is not possible.

#### LOCK DESK

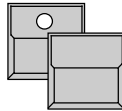
All buttons, encoders and faders on the front panel are locked, but internally running programs go on. Playback via any kind of remote input or master slave communication keep on working.

## 9.5 Macros

The five macro buttons A to E right beside the cue card slot offer the possibility to sample different key strokes to one single button.

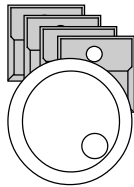
### 9.5.1 Programming macros

*Start of programming a Macro*



STORE  
MACRO A

The display returns to the Top Menu, but a small display "RECORDING MACRO X" marks that all following functions are recorded.



All buttons but the single scan buttons including the mouse buttons, get listed in the macro ENCODER movements get only listed within the BACKUP menu

*End of programming a macro*



MACRO A

Selecting the macro button a second time closes the list and stores the macro. "RECORDING MACRO A" disappears

In case the maximum step number is reached (22-62 depending on the kind of button), the macro is stored automatically with "MACRO FULL".

*Macro playback*



Playback of a macro:

MACRO A

Every time the macro button is used, the Scancommander will repeat all listed operations.

*Deleting a macro*

Macros can not be listed in the display. All special macros, including any programming or deleting commands in their list, should be cleared as soon as they have done their job.

### !! ATTENTION !!

Deleting a macro is done by  
 - STORE  
 - MACRO  
 - MACRO

## 9.5.2 Macro user examples

Simplify the chase programming:

- STORE
- CHASER x
- STORE

must be stored as a macro.

Playback of a few memories (with delay):

The Scancommander can store up to 50 button instructions.

If a macro recalls

- 20 x Memory A/1,
- 10 x A/2 and then
- A/3 ,

so will be first done A/1, after 0.4 second delay A/2 and after 0.2 second A/3 . Longer delays can be realized by programming chases or sequences.

Exchange of all memories:

A macro is stored :

- BACKUP
- MEMORY
- LOAD
- Encoder on file list start
- Encoder on file
- OK
- QUIT

a second macro loads an other memory file.

With these two macros a complete set of new memories can be loaded very fast.

Start of a follow action with the actual scan selection:

With the macro

- Pan/Tilt
- Preset "Vocal "
- EXTRA
- FOLLOW
- FREEZE FOLLOW

the actual scan selection can be set to position "Vocal" and at the same time fixed on the trackerball.



## 10. Inputs and outputs

### *Mains (Power Supply)*

The Scancommander can be connected to an AC Powersource between 90 and 240 Volt AC (40-60Hz).

The powerswitch is located on the front panel at the top right hand side.

### *DMX 512 output*

The DMX output conforms to USITT DMX 1990. Every unit using this protocol can be successfully interfaced with the Scancommander.

The DMX Output is optically isolated and exceeds the RS485 Norm.

Pinout: pin 1 = Shield  
pin 2 = Data -  
pin 3 = Data +  
pin 4 = not connected  
pin 5 = not connected

### *DMX 512 input*

The DMX Input allows operation of two different functions:

- a. All incoming DMX-Data will be merged with the Data produced by the Scancommander. The highest value takes precedence at the DMX output.
- b. To remote various functions of the Scancommander via DMX, e.g. coupling a lightning desk and a Scancommander. For configuration see "Remote".

The connector is a Mono or Stereo Phone Jack 6,3mm and the input is galvanic insulated. Input impedance is ca. 3K Ohm, the threshold is min. 3 mV. The electrical connection is tip and sleeve. The Sound Input controls are located on the upper left side of the front panel.

### *Sound input*

Adjustment: Turn the volume control until the left LED begins to light; higher inputs are limited automatically. To get the best results, the frequency control should be turned to the left for low frequencies (50 Hz), to the right for high frequencies (2 kHz). "Hold-Off" control should be initially set full left.

To avoid double triggering of a bass drum for example, rotate "Hold Off" as needed. At full right, "Hold Off" time is a full six seconds.

### *SMPTE Time Code*

The Sound Input doubles as the Time Code Input.

The electrical connection is the ring + common (galvanic insulated). The input impedance is ca. 3 kOhm, the minimal level ca.200mV.

### *Remote GO input*

The Remote Go input is a 6.3 mm Phone Jack connector.

- a) For electrical contact-switch use the ring and tip.
- b) For 5 Volt Impulse use the tip and common.

**Danger! Maximum 5 Volt at this input; a higher voltage may damage the Scancommander.**

The connection is a 25 pin Sub-D.

*Touch board input*

This input is used to control 16 different functions (similar to the DMX-Input).  
For the configuration see "Remote".

Pinout:     pin 1 = function 1  
              pin 2 = function 2  
              etc....  
              pin 25= common

The threshold level is between 4V and 10V. Input impedance is 100 kOhm.

*Trackball or mouse*

Necessary to work comfortably in the Follow Mode and to set the Pan/Tilt position.

The trackball connector is compatible with the ATARI norm. PC compatible trackballs will not work with the Scancommander.

*Keyboard*

Necessary to enter the names of the Memories etc. The connector is a 5pin Din. Every PC compatible AT/MF-keyboard can be used.

**ATTENTION!!**

All DMX512 and analogue inputs and outputs must be shielded and the shielding must be connected to the ground and the case of the corresponding plug.

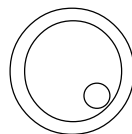
## 11. Defining your own Scans

Starting with software version 4.31 the Scancommander now offers the possibility to define your own lamptypes. These lamptypes can be then used like any other default lamptype in the LAMPTYPE SETUP.

This new feature enables the adaptation of the software to new scantypes which are not listed in the factory setup or lamptypes which has changed their channel order. All characteristics (e.g. name, type, channel order of DMX control and brightness master functions) can be programmed for up to 16 free definable types.

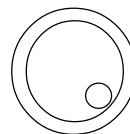


NAME	:	MY_SCAN1 1 XYZ 199	
SHORT NAME	:	MS1	
SCANTYPE	:	MIRROR	
CHANNELS	:	17	
<b>BRIGHTNESS</b>	:	<b>DIMMER NORMAL</b>	<b>EDIT</b>
BLACKOUT	:	----, < 2%	
FIXED CH1	:	----, 0%	
FIXED CH2	:	----, 0%	
FREEPATCH	:	0%	
C-M-Y MODE	:	NORMAL	
<b>USER 1</b>		<b>↕ BRIGHTNESS</b>	

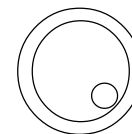


Encoder 1:  
Selects the number of the free definable scan between 1 and 16.

*Attention:* This number does not correlate with fixture number 1 to 16 which has to be assigned later. So the lamptype "USER 1" can be used for all 16 lamps in the LAMPTYPE SETUP.



Encoder 2:  
Selects the line to be edit.



Encoder 3:  
Selects some parts of adjustments. If the adjustments are more complex, the EDIT button will lead to further menus.

*Explanation of the different parameters*

NAME : `MY\_SCAN1 1 XYZ 199`  
SHORT NAME : `MS1`

The name of the lamptype (19 characters) and the shortname (6 characters) can be entered by the keyboard

*Mirror or headlamp*

SCANTYPE : MIRROR

Selection of MIRROR or HEAD (e.g. Vary\* lites). This function is only valid for the stage movements.

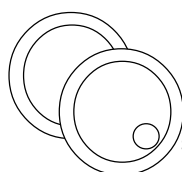
*Channel order*

CHANNELS : 17



leads to the menu for the channel order:

CH. 1 : GOBO2	CH.13 : PAN	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p><b>CLEAR</b></p> <p><b>RETURN</b></p> </div>
CH. 2 : TILT	CH.14 : IRIS	
CH. 3 : GOBO1	CH.15 : SPEED1	
CH. 4 : COLOR1	CH.16 : FROST	
CH. 5 : DIMMER	CH.17 : SHUTTER	
CH. 6 : PRISMA	CH.18 : ----	
CH. 7 : CYAN	CH.18 : ----	
CH. 8 : YELLOW	CH.20 : ----	
CH. 9 : COLOR2	CH.21 : ----	
CH.10 : GO1-ROT	CH.22 : ----	
CH.11 : MAGENTA	CH.23 : ----	
CH.12 : FOCUS	CH.24 : ----	
<div style="display: flex; justify-content: space-between; border: 1px solid black; padding: 5px;"> <span>USER 1</span> <span>◀ CHAN. 1</span> <span>GOBO 2</span> </div>		



#### ENCODER 2 and 3:

Selection of the DMX channel (inverse) and the corresponding function. These channels must be selected and set up one by one.

24 channels can be programmed to the functions of the Scancommander. These functions can be selected by encoder 3 in the following order:

Gobo 1	Zoom
Gobo 2	Shutter
Color 1	Speed 1
Color 2	Speed 2
Dimmer	Special
Cyan	Gobo1-Rotation
Magenta	Gobo2-Rotation
Yellow	Prism Rotation
Prism	Pan
Iris	Pan fine
Focus	Tilt
Frost	Tilt fine



**CLEAR**

Deletes all settings starting with the selected channel for this user type.



**RETURN**

Leads back to the MAKE LAMPTYPE menu.

*Assignment of the brightness master*

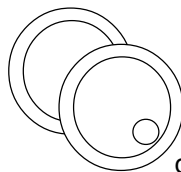
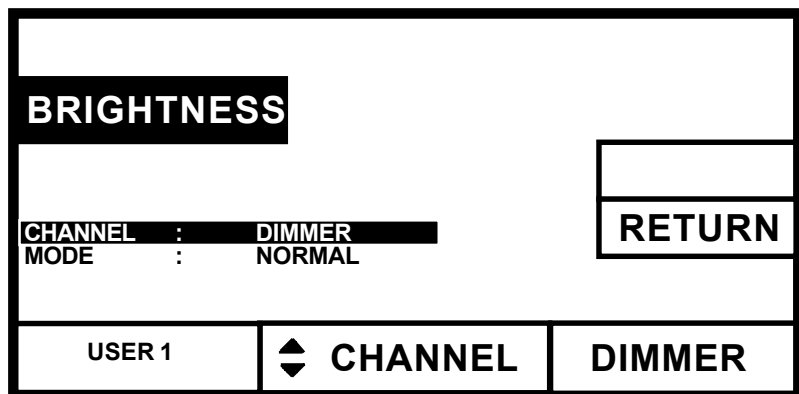
**BRIGHTNESS : DIMMER NORMAL**

The brightness of different groups can be controlled via the Scancommander's brightness master. The channels that are affected by the brightness masters, are programmed in the BRIGHTNESS and BLACKOUT menu.



**EDIT**

leads to the menu defining the brightness master



**ENCODER 2 and 3:**

Select the line and function

**CHANNEL:** Here the channel can be selected to be dimmed by the brightness master (normally dimmer).

**MODE:** NORMAL resp. INVERS

INVERS must be selected if the scan for level=00 is 100 % on.

**BLACKOUT : SHUTTER, < 5%**

Corresponding to the BRIGHTNESS menu a channel can be selected which will be set to 0 if a specific threshold (e.g. 5%) is reached.

*Special functions*

FIXED CH1 : ---- , 0%

*Fixed channels*

FIXED CH2 : ---- , 0%

This functions enables you to set two channels to a fixed level. This channel must be connected first to an unused function of the Scancommander. Than it can be fixed in the FIXED CH1 resp. FIXED CH2 menu to a specific level. Later this channel will not be affected by any function of the Scancommander.



(For example: The (Lightwave research) Studiocolor needs channel 16 to be set at 00).

*Free patch of one of the scan functions*

FREEPATCH : -----

The last function of the filed channel list can be separated optionally from the other DMX channels of the scan. Later this function can be patched separately. Therefore it must be selected by the third encoder.

(Example: In the VL5 of Vari\*Lite the dimmer is separated from the other control channels and is controlled by an external dimmer. By the FREEPATCH function this dimmer address can be entered separately)

If a lamp was defined in the FREEPATCH menu it will appear in the LAMPTYPE SETUP menu as follows:



- button

here the lamp can be selected and patched separately

*Adaptation of the colour mix function*

C-M-Y MODE : NORMAL (optionally INVERS)

Up to now the scan manufacturers do not agree to an uniform colour mix. Some work with C-M-Y, others with the R-G-B colour mix. To reach a better control of the colour mix function the C-M-Y function can be inverted.

# Index

## Symbole

00:00:15 67  
16 BIT accuracy 23

## A

ACCESS ALL 70  
Adaptation to new stage setups 18  
Adjusting preset positions 20  
ALL 69  
Atari compatible mouse or trackball 6, 21

## B

Backup on cue card 6, 68  
Blackout 77  
Block operations 37, 49  
Board housing 6  
Brightness fader 13  
brightness master on EXTRA 65

## C

CANCEL 70  
CANCEL BLOCK 38, 49  
CHANGE PAN<>TILT 10, 11  
Changing chaser name and parameters 36  
Changing chaser step matrix and levels 39  
Changing memory matrix and data 31  
Changing memory parameters 31  
Changing order of chaser steps 37  
Changing sequence step matrix and levels 50  
Changing sequence STEP MODE 48  
Changing sequence step numbers 48  
Changing sequence step order 48  
Changing sequence step times 47  
Changing the event time 61  
Channels per EXTRA unit 64  
Chaser 33  
CHASER SPEED 34  
Circle mode 22  
CIRCLE OFF 22, 30  
Circle speed 22  
CLEAR (DMX output patch) 9  
CLEAR (Scanselection) 13  
CLEAR (STORE MATRIX) 24  
CLEAR ALL 70  
CLEAR FREEZE 27  
"CLEAR"- "INVERT" 13  
Clearing a memory 70  
Clearing programs 70

C-M-Y Mode 78  
Computer mouse 6  
Controlling color changers 65  
Controlling dimmer channels 65  
COPY BLOCK 38, 49  
Copying memories 32  
Cue card 6

## D

Daisy chaining a DMX signal 54  
DELETE ALL 33, 42  
DELETE BLOCK 38, 49  
DELETE EVENT 62  
DELETE STEP 37, 48  
Deleting a chase 70  
Deleting a file on card 69  
Deleting a macro 71  
Dimmer and color changers 9, 64  
Direct access 13  
Display buttons 7  
DMX512 9, 64  
DMX512 input 66, 73  
DMX512 output 6, 73  
DMX interface 9  
DMX MOVEMENT 10  
DMX output addresses 9  
DMX REMOTE ON/OFF 52  
DOUBLE STEP 37, 48, 51  
Drawback of selective programming 30  
Drawer 6

## E

EBU Time Code 57  
EDIT 31, 32, 36, 37, 39, 47, 50, 53, 54  
EDIT MATRIX 31, 39  
Enable Chaser 35  
Enable Sequenz 45  
Encoder ring 14  
Encoders 7, 14  
END OF RANGE 61  
Events 58, 59  
EXT SOUND 41, 44  
Extension Unit 56, 63  
EXTERN GO 43  
EXTRA 1 100 % 65  
EXTRA 1 DMX INPUT 66  
EXTRA 1 and 2 groups 65  
EXTRA 1 and 2 in memories 66  
EXTRA 1 and 2 on direct access 64  
EXTRA 1 and 2 Presets 65  
EXTRA channels 64  
Extra1, Extra2 9

- F**
- FADE LED flashes 26
  - FADE MODE 26
  - FADE TIME 40
  - FEATURE button 14, 15
  - FILES 68
  - FINE 61
  - Fixing the followspot mode 21
  - Follow mode 11, 18, 21
  - Followspot in standard operation mode 21
  - FORMAT 68
  - frame number 57
  - FRAMES 59
  - FREE 68
  - Freepatch 78
  - FREEZE 27, 35
  - FREEZE FOLLOW 21, 27
  - FREEZE/FOLLOWACTIV 67
  - Freezing single channels 35
- G**
- GOBUTTON 40, 41, 43
  - GOMODES 40, 41
  - graphic on sequence menu 46
  - Green LED's in the SET MODE 43, 45
  - Group button A-H 13, 65
- I**
- INIT:SCANS+VALUES+NAMES 8
  - Initialization of stage 11
  - Inputs and outputs 73
  - INSERT 34, 42
  - Insert additional events 59
  - INSERT mode 59, 62
  - INSERT NOT POSSIBLE 62
  - Inserting a new event 62
  - INVERT (Scanselection) 13
  - INVERTPAN 10, 11
  - INVERTTILT 10, 11
- J**
- jumping to another step number 46
- K**
- KEYBOARD 6, 15, 25, 74
  - Keyboard drawer 6
  - Keyswitch 70
- L**
- Lamp Type Menu 8
  - LAMPTYPE 8
- LINKFADE 34, 36, 42, 47
  - LINKMEMORY 46, 51
  - LIST 28
  - Load data from card 69
  - LOCKDESK 70
  - LOCKPRG 70
- M**
- Macro user examples 72
  - Macros 71
  - Mains (Power Supply) 73
  - MAKE BLOCK 37, 38, 49
  - MAN FADE 26
  - Manual x-fade memory 26
  - Manual x-fade sequence step 44
  - Manufacturer 8
  - MASTER 67
  - MASTER-SLAVE 56, 63
  - Master-Slave operation via MIDI 55
  - Masterfaders 13
  - MASTERS ALL 100% 13, 60, 63
  - Memories 24
  - Memories and chasers as steps of a sequence 51
  - Memory name 25, 28
  - Memory pages 25
  - MENU 46
  - MIDI 55
  - MIDI FORMAT 55
  - MIDI IN ON/OFF 52, 55
  - MIDI IN/OUT 67
  - MIDI sequencer 55, 56
  - MODE MASTER 56
  - MODE PROGRAM 21
  - MODE SLAVE 56
  - modification of running fades 67
  - MODIFY 31, 37, 39, 48, 50, 58, 61
  - Modifying a chaser program 36
  - Modifying a sequence 47
  - Modifying a Time Code program 61
  - Modifying of memories 31
  - Modifying PRESETS 15
  - MORE 1(3) 8
  - Mouse button 21
  - MOUSE:SLOW 67
  - MOVE BLOCK 38, 49
  - Movement control 11
  - Movement initialization 20
  - movement mode change 19
  - Movement on direct DMX 18
  - Movement on stage calculation 18
  - Movement speed 23
  - MULTI 13



## N

New stage setup 20  
NEXT in the sequence menu 46  
NOEVENT 52  
Number in brackets 9

## O

OK 68  
OPTION 13, 19  
Outside the stage 21  
Overwrite an old step 34  
OVERWRITE mode 58, 59, 62  
Overwrite parts of a show 59  
Overwriting a running chaser 35  
Overwriting the programmed fade time 26

## P

PAGE A-D 25  
PAN/TILT via encoder and Presets 18  
PAN/TILT coordinates 18  
PATCH 9, 64  
PC compatible mice 6  
PC-MF keyboard 6  
Percentage 34, 36, 42, 47  
PLAYBACK area 25  
Playback chasers 35  
Playback memories 26  
Playback of presets 16  
Playback of selective memories 30  
Playback of sequences 43  
Powersupply 6  
PRESETADJUST 15  
PRESET names 15  
Preset X-Fades 16  
PRESETS 15  
PRESETS for Pan/Tilt 19  
Priority 35  
Programming chaser parameters 34  
Programming macros 71  
Programming of basic memories 24  
Programming of chasers 33  
Programming of presets 15  
Programming of scan groups 13  
Programming of selective memories 29  
Programming of sequences 40

## Q

QUIT 7

## R

Radius 22  
RATE Fader 44  
READY 8  
RECORD 58  
RECORD : NEW 58, 59  
RECORD : PRESET 59  
Red LED's in SET MODE 43  
Red printed functions 14  
Registration card 5  
Registration of selected lamp type 8  
REMOTE 52, 55, 58  
Remote GO input 73  
REMOTE Top Menu 52  
Remote via DMX input 54  
Remote via Touchboard 53  
RENAME STEPS 48  
RESET 10, 11, 56  
rhomb in front of Pan/Tilt values 18  
RUNNINGFADE 7, 67

## S

S1 to S10 25  
SAMPLE CLEAR 17  
SAMPLE display 17  
SAMPLE function 17  
SAMPLE GO 17  
Save data to card 69  
Scan groups 13  
SCANSELECTION 13, 14  
Scancommander Extension 63  
SCANS 9  
Selecting a single event 61  
Selective memories 24, 29, 35  
SEQUENCE 69  
sequence playback menu 40, 46  
Sequence playback rate via fader 44  
Sequence via GO button 43  
sequence via Sound input 44  
sequence with intern stored STEP MODE 45  
Sequences 40  
SETRATE 41, 44  
SET SELECTION TO DMX 19  
SET SELECTION TO STAGE 19  
SETTIME 26  
Set Time LED 43  
SET-corner button 12  
SETUP 7, 8, 9, 11, 64, 69  
Shutter Strobe Off 30  
SINGLE 13, 33, 42, 67  
Slow/Fast 21

Smooth movement 23  
SMPTE 69  
SMPTE MENU 58  
SMPTE ON/OFF 52  
SMPTE Time Code 73  
SMPTE Tme Code 57  
SOUND INPUT 40, 73  
Speed channel 23  
Stage 19  
Stage corners 12  
Standart Memories 26  
Start a chaser 35  
Starting a sequence 43  
Starting angle 22  
STEP FADE 34, 36, 42, 47  
STEP MODE 43, 48  
Step numbers 41  
STEPTIME 40, 41, 42, 47  
STEP TRIG 34, 36, 42, 47  
STOP 60  
Stop a running chaser 35  
Storage capacity 30, 68  
Storage of programs 68  
STORE 12, 13, 15, 24, 29, 33, 34, 39, 42, 50, 71  
STORE MATRIX 24, 29, 31, 66  
Synchronisation 57  
Synchronized playback 57

## T

Tape playback 58  
Terminate record mode 59  
Termination of a chaser 35  
Testing single steps 50  
TIME CODE 57  
Time Code 57  
Time Code generation 57  
Time Code Playback 60  
Top menu 7  
Touchboard 74  
TOUCHBOA. MENU 53  
Touchboard input 53  
TOUCHBOARD ON/OFF 52, 53  
Trackball or mouse 19, 21, 74  
Tracking of a person 21  
Trigpoint and x-fade 25

## U

USITT DMX 512 6  
Utilities 67

## V

VL5 78

## W

WRITE : ENABLED - PROTECTED 68

## X

x-fade 25  
x-fader in the playback section 26  
x-fades to a preset 16  
X/Y coordinates 11

## Y

Yellow LED in the SET RATE 45

# Fixture Library SC 4.31f

Manufacturer	Fixture Name	No. of Channels	
<b>OPEN</b>	No Scan		No Scan connected
<b>ABSTRACT</b>	Futurescan	4	
<b>ADB (BBA)</b>	Ingenio BBA LR	6	Color changer
<b>AMPTOWN</b>	ACC Posi Spot	4	
	Contr.PML MK2	12	
	Contr.WL HX	7	
	Contr.WL HP	10	
<b>B+K</b>	Varytec	5	
<b>CAMELEON</b>	Telescan MARK I	8	
	Telescan MARK IV	19	
<b>CLAY PAKY</b>	Alpha Wash	16	
	Miniscan 300	4	Brightness Master optional fading or switching Gobo
	Miniscan HPE	7	
	Goldenscan2	6	Brightness Master optional on Iris or Shutter
	Goldenscan3	6/8	
	Goldenscan HPE	12	
	Superscan (MRG)	12	
	Superscan Zoom	12/16	
	Stage Scan	17	
	Stage Light 300	10	
	Stage Color 300	10	
	Stage Color 575	14	
	Stage Color 1000	11	
	Stage Color (SV) 1200	14	
	Golden Spot	13	
	Golden Color 1200	10	
	Stage Zoom	19	
	Stage Zoom SV 1200	20	
	Shadow	4	Followspot only
	Tigerscan	6	
	Pinscan	3	
	Bazuka	6	
	Polycolor	6	Color changer
	Tiger MRG	4	
	Tiger COLOUR Changer	3	
	Combicolor	4	Color changer
<b>COEF</b>	Performance 200	6	
	Performance1-3	6	
	Performance3	9	
	Performance4	10	
	Coef 1200 Disco	8	
	Color Show 200	5	Color changer
	MP 250 Optic HR+	9	
	MP 250 FRESNEL HR+	9	
<b>COEMAR</b>	Microscan 1/2 400/650	6	
	Microscan 3	8	
	Samurai	8	
	MINI ULTRA 200/250	6	
	MINI ULTRA 2	8	
	NAT MM 1200 DX	10	
	NAT MM 1200 PR	13	
	NAT MM 1200 ZOOM	20	
	MM 2500 Zoom	20	
	Nat TM 1200 DX	12	
	Nat TM 1200 DXP	14	
	Nat TM 1200/4000	20	
	Nat TM 2500	21	
	CF 1200 Hard Edge	20	
	CF 1200 Spot	13	
	PC 1000 CC	8	
	Duetto	6	
	Pchmi	9	
	CF7 Zoom Wash	13	
	CF7 Hard Edge	20	
	I-Spot 150	13	
	I-Spot 575	20	
	ProSpot 250 LX	16	
	ProWash 250 LX	14	

**Manufacturer Fixture Name No. of Channels**

<b>DAH DTS</b>	Digital Beamlight	10	
	ARC 400	4	
	ARC 575	8	
	ARC 1200	10	
	X-Scan 575	15	
	XR 250 Wash ( XR5 WASH)	16	
	XR 250 Spot	14	
	XR 5 Spot	17	
	XR 7 Wash ( XR 8 Wash)	16	
	XR 7 Spot	15	
XR 8 Spot	19		
<b>EASYLIGHT</b>	Twist HTI 300 DMX	4	
	EasyLight Scan 3	6	
	EasyLight Scan 3D2	7	
	EasyLight Rainbow	2	
	EasyLight Colore LC	2	
	EasyLight Colore 2	4	
<b>FAL</b>	FAL 2000	7	
	FAL 2500 XL/XLD	11	
	FAL 2500 XLDX	14	
	Roulette 575/1200	8	
	Proscan II HR	14	
	Proscan X HR	13	
	Promo 2/3	6	
	Three-Sixty	8	
	Three-Sixty2	10	
	<b>FLY</b>	FOS 3 / 4	12
Palette		5	Followspot
<b>FUTURE-LIGHT</b>	Miracle	4	
	CC-200	4	
	SC-330/370	4	
	Promotion Scan HR	11	
	Genesis	8	
	Voyager	8	
	Duke 1200	8	
	Advert Scan HR	11	
	SC-250	6	
	SC-530/570	10	
	SC-740	13	
	SC-780	16	
	SC-940/980	16	
	MH-640	16	
	MH 660 Spot	16	
	MH-840	16	
	MH 860 Spot	16	
<b>GENIUS</b>	Omega2	10	
<b>GLP</b>	Mini Star Tec	6	
	Mighty Scan	6	
	MAX	8	
	Startec 2000	7/9	
	Startec 1200	12	
	Joy 300	11	
	Patend 575 PAN_coars	13	
	Patend 575 PAN_FINE	13	
	Patend 1200	17	
	YPOC 250 BASIC	12	
	YPOC 250 Color	14	
	YPOC 250 Laser	15	
	YPOC 250 Color Basic	10	
	YPOC PRO 575	16	
	YPOC Color 575	15	
	YPOC 700	21	
YPOC 700 CMY	24		
<b>GRIVEN</b>	Cruise	11	
<b>HIGH END</b>	Trackspot	7	
	Technobeam HR	18	
	Technobeam Iris HR	18	
	Intellabeam	8	
	Intellabeam HR	13	

# Scancommander

Manufacturer	Fixture Name	No. of Channels	
	Cyberlight CX Mode3	15	
	Cyberlight Mode2	20	
	Studiocolor	16	
	Studiocolor 250	15	
	Studio Spot 575	24	
	Studio Spot CMY	24	
	Studio Beam PC V1.0	16	
	Studio Spot 250	18	
	Technopro HR	12	(NO MOVEMENT)
	Trackspot mainlight	5	
	Technoray hR	14	
	Dataflash	3	
<b>JJ.B.</b>	Varyscan 1	4	
	Varyscan 3 SP+	6	
	Varyscan 3 SP+	8	
	Varyscan 3 700	13	
	Varyscan 4	8	
	Varyscan 4 EV	11	
	Varyscan 5 MV	22	
	Varyscan 6 spot	12	
	Varycolor 6 wash	12	
	Varyscan 7	22	
	Varyscan P3	22	
	Varycolor	6	
<b>LAMPO</b>	Sintesi+Super	6	
	Columbus 1200 AF	10	
<b>LICHTTECHNIK</b>	Motor Yoke 300,330	17	
<b>LITEBEAM</b>	Swing I	6	
	Swing II	12	
	Chandra I	7	
	Chandra II	12	
	Swing II HR	14	
	Chandra II HR	14	
<b>LYTE QUEST</b>	MotorHead	5	
<b>MAD LIGHTING</b>	Oscan	5	
	Scan611	6	
<b>MARTIN</b>	Roboscan 804/805	5	
	Roboscan 218	7	
	Roboscan 218 m3 HR	9	
	Roboscan 518	9	
	Roboscan 518 m3 HR	9	
	Roboscan 812	7	
	Robo 918 m4	16	
	Robo 1020	12	
	Robo 1220	16	
	Imagescan m2	9	
	Robo 1220 rpr m4	17	
	Pal FX 1200 m4	20	Mode 4 only, with 6 or 8 EXTRA channels
	Mac2000Profile	24	
	Mac2000 Wash	21	
	Mac 1200 m4	14	
	Mac 600 m4	14	
	Mac 600 NT m4	15	
	Mac 500 m4	16	
	Mac 300 m4	13	
	Mac 250 m4	13	
	Mac 250 wash	13	
	Mac 250 Krypton EX	17	
	Mac 250Entour EX	18	
	Mac 700 wash	16	
	Mac 700 profile	22	
	MiniMac Pr m4	10	
	MiniMac WS m4	8	
	MX-1	6	
	Robocolor / MSD EX	5/6/7	Color changer, Optional 5 or 7 channel
	Robocolor pro4	5	
	Robozap	4	
	Robozap MSR	6	
	Centerpiece H3+4=GO	7	
<b>MORPHEUS</b>	PANa Beam	4	
	Coloure Fader Dimmer	4	

Manufacturer	Fixture Name	No. of Channels	
<b>MOVITEC</b>	SL-250	16	
	WL-250	16	
	SL-575	16	
	WL-575	16	
<b>OBIES</b>	Xescan	10	
<b>OMICRON</b>	Omicron Laser	16	
<b>OPTIKINETICS ROBE</b>	Solar System	7	
	ColorSpot 1200(E) AT Mode1	12	24
	ColorSpot 170 AT Mode1	12	
	MSZoom 250 XT Mode1	16	
	Spot 575 XT Mode1	16	
	Spot 250 XT Mode1	16	
	Spot 160 XT Mode1	9	
	Spot 150 XT Mode1	8	
	Spot 250 AT Mode 1	18	
	Spot 575 AT MODE 4	21	
	Wash 575 XT Mode1	16	
	Wash 250 XT Mode1	16	
	Wash 150 XT Mode1	8	
	Wash 575 AT Mode 2	18	
	Scan 1200 XT Mode1	16	
	Scan 575 XT Mode1	16	
	Scan 250 XT Mode1	16	
	Colormix 250 AT Mode1	11	
	Colormix 240 AT Mode1	11	
	Colormix 150 AT Porfile	4	
	Colormix 150 AT Wash	3	
Beam 250 XT	4		
<b>SAGITTER</b>	Prince	6	PRINCE and SUPER PRINCE TEMPLATE
	Super Prince	10	
	Infinity HR	12	
	Infinity MSZ HR	14	
	Infinity Club	12	
	Infinity Live	20	
	Tracer	5	Followspot
	Mask Color Zoom	10	
	Moving Spot 250 / 575	16	
	Moving Wash 250 / 575	16	
<b>S G M</b>	Galileo 1	6	
	Galileo 2 HR	12	
	Galileo 3 HR	14	
	Galileo 4 HR	18	
	Giotto	13	
	Victory1	9	
	Victory2	12	
	Giotto Spot 250/400	22	
	Giotto Wash 1200	13	
	Giotto Spot 1200	18	
	Giotto 1200 Doors	18	
<b>SHOWPRO</b>	Cyberscan HR	10/13	
	Accubeam AB-400	4	
	Accucolor	2/3	Color changer
<b>SLS</b>	Panscan 3 Junior	5	
	Panscan4 HR	15	
<b>SPACE CANNON</b>	Target + Devil	8	
<b>STARLITE</b>	Starlite 2G HR	9	
	Starlite Mk5	19	
<b>STRONG</b>	Mini Scan Rotax	6	
	Big Scan 3	12	
<b>STUDIO DUE</b>	Varybeam	7	
	CityColor	7	
	Live Pro 1200 CMY	20	
	Live Pro 1200 PRISM	16	
	Live Pro 1200 FROST	16	
	Stratos HR	15	
	Stratos CMY R.Gobo	15	
	Stratos CMY Iris	15	
Minibeam	6		

# Scancommander

---

Manufacturer	Fixture Name	No. of Channels
	Giant HR	9
	Light Reflector	7
	Predator	6
	Carioca	5
	Stratos HR Dim neg	14
	Stratos LR Dim neg	12
<b>SUMMA USA</b>	Summa hti	9
<b>TAS</b>	Crono	9
	CF6	12
<b>THEATRE PROJECTS</b>	Sky Art	7
	PAL (PPTTFC)	6
<b>VARI*LITE</b>	VL1	6
	Vlm m3	10
	Vlm m4 Ex	13
	VI5/VI5B m3	11
	VI5 m4 16B Ex	14
	VI5 Arc m3 v5.1	10
	VI5 Arc m4 16B Ex	13
	VI6 m3 16Bit	10
	VI6 m4 16B Ex	13
	VI6 m5 16B Ex	11
	VI6 m6 16B Ex	14
	VI6B m5 16Bit	14
	VI6B m6 16B Ex	17
	VI7 m7 16Bit	17
	VI7 m8 16Bit Ex	20
	VI7B m9 ADD6 Extra	17
	VI220X 16bit Std.	14
	VI220X 16bit Enhc	17
	VI2401 16bit Std.	12
	VI2401 16bit Enhc	15
	VI2402 16bit Std.	12
	VI2402 16bit Enhc	15
	VI2416 16bit Std.	12
	VI2416 16bit Enhc	15
	VL1000 A	19
	VL1000 AI	19
	VL3000 Wash	16
	2500 Wash	15
	2500 Spot	22
	VL 500 Wash	13
<b>X &amp; Y</b>	Yoke XL	7
	MN 400 Wash	12
	MN 400 Spot	13
	MN 600 Wash	14
	MN 600 Spot	14
	Bim 1200	14

# Appendix 1:

## List of manufacturers and scans, possible to control via the Scancommander

(Version 4.31f from July 2006):

### Manufacturer "OPEN"

Scan type: NO SCAN  
 Short name: \_\_\_\_\_  
 — no channels connected —  
 To be used to disconnect any lamp

### Manufacturer: ABSTRACT

Scan type: FUTURESCAN 2-CE  
 Short name: FUT 2  
 Movement: Head - no Brightness Master  
 DMX channel order  
 1: Pan                    2: Tilt                    3: Color 1  
 4: Gobo 1

**Presets available**

### Manufacturer: ADB (BBA)

Scan type: INGENIO BBA LR 6 CH.  
 Short name: INGENT  
 No Movement - Brightness Master on Dimmer  
 DMX channel order  
 1: Color 1            2: Color 2            3: Dimmer  
 4: Frost              5: Speed 1            6: Speed 2

**Presets available**

### Manufacturer: AMPTOWN

Scan type: ACC\_POSI\_SPOT  
 Short name: ACC  
 Movement: Head - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan                    2: Tilt                    3: Dimmer  
 4: Color 1

**Presets available**

Scan type: PML MK-2

Short name: PML MK  
 Movement: Head - Brightness Master on Dimmer  
 DMX channel order  
 1: Dimmer            2: Iris                    3: Shutter  
 4: Gobo 1            5: Color 1            6: Pan coarse  
 7: Pan fine            8: Tilt coarse            9: Tilt fine  
 10: Focus            11: Color 2            12: Rotatiion 1

**Presets available**

Scan type: WASHLIGHT HALOGEN

Short name: WLHALO  
 Movement: Head - Brightness Master on Dimmer  
 DMX channel order  
 1: Dimmer            2: Focus                    3: Pan  
 4: Tilt                    5: Yellow                    6: Magenta  
 7: Cyan

Scan type: WASHLIGHT HP

Short name: WL HP  
 Movement: Head - Brightness Master on Dimmer  
 DMX channel order  
 1: Dimmer            2: Shutter            3: Pan  
 4: Tilt                    5: Yellow                    6: Magenta  
 7: Cyan                    8: Color1(Filter)    9: Focus  
 10: Special(lamp on/off)

### Manufacturer B+K

Scan type: VARYTEC  
 Short name: VARYTE  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Color 1            2: Gobo 1                    3: Pan  
 4: Tilt                    5: Dimmer

### Manufacturer CAMELEON

Scan type: TELESCAN MARK I  
 Short name: TELE S  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan                    2: Tilt                    3: Dimmer  
 4: Gobo 1            5: Cyan                    6: Magenta  
 7: Yellow            8: Focus

Scan type: TELESCAN MARK IV

Short name: TELE 4  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan coarse    2: Pan fine            3: Tilt coarse  
 4: Tilt fine       5: Ventil.=Speed 1 6: Dimmer  
 7: Iris coarse    8: Iris fine=Shutter 9: Cyan  
 10: Magenta       11: Yellow            12: Focus  
 13-14: Scroller coarse-fine=Gobo 1-2 15: Frost  
 16: Corrector=Color 1  
 17-18: Rotation coarse-fine=Rotation 1-2  
 19: Ignition=Special

Scan type: TELESCAN MARK IV PART1

Short name: TELE 4  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan coarse    2: Pan fine            3: Tilt coarse  
 4: Tilt fine       5: Ventil.=Speed 1 6: Dimmer  
 7: Iris coarse    8: Iris fine=Shutter 9: Cyan  
 10: Yellow       11: Magenta            12: Focus

Scan type: TELESCAN MARK IV Part2

Short name: TELE 4  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1-2: Scroller coarse-fine=Pan coarse-fine  
 3: Frost  
 4: Corrector=Color 1  
 5-6: Scoller Pos.coarse-fine=Tilt coarse-fine  
 7: Ignition=Special



## Manufacturer CLAY PAKY

Scan type: MINISCAN TRIG GOBO

Short name: MINI T

Movement: Mirror - Brightness below 50% will close Gobo

DMX channel order

1: Color 1            2: Gobo 1            3: Pan  
4: Tilt

**Presets available**

Scan type: MINISCAN FADE GOBO

Short name: MINI F

Movement: Mirror - Brightness Master linear on Gobo

DMX channel order

1: Color 1            2: Gobo 1            3: Pan  
4: Tilt

**Presets available**

Scan type: MINISCAN HPE

Short name: MINI H

Movement: Mirror - Brightness Maste on Shutter

DMX channel order

1: Color 1            2: Rotation 1        3: Gobo 1  
4: Shutter            5: Pan                6: Tilt  
7: Prisma

**Presets available**

Scan type: GOLDENSCAN 2 IRIS

Short name: GOLD 2

Movement: Mirror - Brightness Master on Iris

DMX channel order

1: Iris                2: Color 1            3: Gobo 1  
4: Shutter            5: Pan                6: Tilt

**Presets available - Option switches 1 and 2 on**

Scan type: GOLDENSCAN 2 SHUTTER

Short name: GOLD 2

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Iris                2: Color 1            3: Gobo 1  
4: Shutter            5: Pan                6: Tilt

**Presets available- Option switches 1 and 2 on**

Scan type: GOLDENSCAN 3 6 Channel

Short name: GOLD 3

Movement: Mirror - Brightness Master on SHUTTER (Dimmer)

DMX channel order

1: Iris                2: Color 1            3: Gobo 1  
4: Shutter            5: Pan                6: Tilt

**Presets available**

Scan type: GOLDENSCAN 3 8 Ch.

Short name: GOLD 3

Movement: Mirror - Brightness Master on SHUTTER (Dimmer)

DMX channel order

1: Iris                2: Color 1            3: Prism  
4: Shutter            5: Pan                6: Tilt  
7: Gobo 1            8: Rotation 1

**Presets available**

Scan type: GOLDENSCAN HPE

Short name: GOLD H

Movement: Mirror - Brightness Master on SHUTTER (Dimmer)

DMX channel order

1: Iris                2: Color 1            3: Color 2  
4: Shutter            5: Pan                6: Tilt  
7: Prism              8: Rotation 3        9: Focus

10: Gobo 1

11: Gobo 2

12: Rotation 1

**Presets available**

Scan type: SUPERSCAN

Short name: SUPER

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Iris                2: Color 1            3: Gobo 1  
4: Shutter            5: Pan                6: Tilt  
7: Dimmer            8: Prism              9: Focus  
10: Cyan              11: Magenta         12: Yellow

**Presets available**

Scan type: SUPER MRG

Short name: S MRG

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Iris                2: Rotation 1        3: Gobo 1  
4: Shutter            5: Pan                6: Tilt  
7: Dimmer            8: Color              9: Focus  
10: Cyan              11: Magenta         12: Yellow

**Presets available**

Scan type: SUPER ZOOM 12 Ch.

Short name: S ZOOM

Movement: Mirror - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Iris                2: Color              3: Gobo  
4: Shutter            5: Pan                6: Tilt  
7: Prism              8: Zoom              9: Focus  
10: Cyan              11: Magenta         12: Yellow

**Presets available**

Scan type: SUPER ZOOM 16Ch.

Short name: S ZOOM

Movement: Mirror - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Iris                2: Color              3: Gobo 1  
4: Shutter            5: Pan                6: Tilt  
7: Frost              8: Zoom              9: Focus  
10: Cyan              11: Magenta         12: Yellow  
13: Gobo 2            14: Rotation 1      15: Prism  
16: Prism Rotation

**Presets available**

Scan type: STAGE SCAN 17Ch.

Short name: STAGE

Movement: Mirror - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Iris                2: Color              3: Frost  
4: Shutter            5: Pan                6: Tilt  
7: Zoom              8: Focus              9: Prism  
10: Prism-Rot.       11: Gobo 1            12: Gobo 2  
13: Rotation 1       14: Cyan              15: Magenta  
16: Yellow            17: Remote Lamp Switch = Special

Scan type: STAGE LIGHT 300

Short name: SL 300

Movement: Head - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Color 1            2: Rotation1(Gobo) 3: Gobo1  
4: Shutter            5: Pan                6: Tilt  
7: Frost              8: Focus              9: Pan fine  
10: Tilt fine

Scan type: STAGE COLOR 300

Short name: SC 300

Movement: Head - Brightness Master Dimmer

DMX channel order

1: Cyan               2: Magenta           3: Yellow  
4: Shutter            5: Pan                6: Tilt  
7: Dimmer            8: Frost              9: Pan fine

10: Tilt fine

Scan type: STAGE COLOR 575

Short name: SC 575

Movement: Head - Brightness Master Dimmer

DMX channel order

1: Cyan	2: Magenta	3: Yellow
4: Shutter	5: Pan	6: Tilt
7: Color1	8: Prisma	9: Frost
10: Color2(filter)	11: Dimmer	12: Special
Control	13: Pan fine	14: Tilt fine

Scan type: STAGE COLOR 1000

Short name: SC1000

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Cyan	2: Magenta	3: Yellow
4: Shutter	5: Pan	6: Tilt
7: Color1	8: Frost	9: Dimmer
10: Pan fine	11: Tilt fine	

Scan type: STAGE COLOR 1200

Short name: SC1200

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Cyan	2: Magenta	3: Yellow
4: Shutter	5: Pan	6: Tilt
7: Color1	8: Frost	9: Frost
10: Color2(filter)	11: Dimmer	12:
Special(control)	13: Pan fine	14: Tilt fine

Scan type: STAGE COLOR SV 1200

Short name: SC12SV

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Cyan	2: Magenta	3: Yellow
4: Shutter	5: Pan	6: Tilt
7: Color1	8: Frost	9: Frost
10: Color2(filter)	11: Dimmer	12:
Special(control)	13: Pan fine	14: Tilt fine

Scan type: GOLDEN SPOT 13CH.

Short name: GO SPO

Movement: Head - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Iris	2: Color 1	3: Color 2
4: Shutter	5: Pan	6: Tilt
7: Gobo 1	8: Rotation 1 (Gobo 1)	
9: Gobo 2	10: Focus	11: Pan fine
12: Tilt fine	13: Rotation 2 (Gobo 1 fine)	

Scan type: GOLDEN COLOR 1200

Short name: GO COL

Movement: Head - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Cyan	2: Magenta	3: Yellow
4: Shutter	5: Pan	6: Tilt
7: Color 1=Warm Filter(amber)	8: Frost	
9: Pan fine	10: Tilt fine	

Scan type: STAGE ZOOM

Short name: S ZOOM

Movement: Head - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Iris	2: Color	3: Frost
4: Shutter	5: Pan	6: Tilt
7: Zoom	8: Focus	9: Prism
10: Prism-Rot.3	11: Gobo 2	12: Gobo 1
13: Gobo-Rot. 1	14: Cyan	15: Magenta
16: Yellow	17: Special( Lamp)	18: Pan fine
19: Tilt fine		

Scan type: STAGE ZOOM SV 1200

Short name: S ZOSV

Movement: Head - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Iris	2: Color	3: Frost
4: Shutter	5: Pan	6: Tilt
7: Zoom	8: Focus	9: Prism
10: Prism-Rot.3	11: Gobo 2	12: Gobo 1
13: Gobo-Rot. 1	14: Cyan	15: Magenta
16: Yellow	17: Special (Lamp)	18: Pan fine
19: Tilt fine	20: Rotation 2 (Gobo 1 fine)	

Scan type: SHADOW Followspot

Short name: SHADOW

No Movement - Brightness Master on Dimmer

DMX channel order

1: Iris	2: Color	3: Dimmer
4: Color Temp.=Special		

Scan type: TIGERSCAN

Short name: TIGER

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Color	2: Shutter	3: Gobo
4: Rotation	5: Pan	6: Tilt

Tigerscans updated to 4.5 or higher version can be initialized as GOLDEN Scan 2 (Shutter). Gobo Rotation is then controlled via the Iris Channel.

Scan type: PINSCAN

Short name: PIN

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Tilt
-----------	--------	---------

Scan type: BAZUKA

Short name: BAZUKA

Movement: Mirror - Brightness Master on Iris

DMX channel order

1: Color 1	2: Shutter	3: Pan
4: Tilt	5: Iris	6: Focus

Scan type: POLYCOLOR

Short name: POLY C

No movement - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Focus	3: Shutter
4: Cyan	5: Magenta	6: Yellow

Scan type: TIGER M.R.G.

Short name: T MRG

No Movement: - Brightness Master on Shutter

DMX channel order

1: Color 1	2: Shutter	3: Gobo 1
4: Rotation 1		

Scan type: TIGER CC/COLOUR CHANGER

Short name: T CC

No movement: - Brightness Master on Shutter

DMX channel order

1: Color 1	2: Shutter	3: Focus
------------	------------	----------

Scan type: Combi Color

Short name: COMBI

No movement - Brightness Master on Dimmer

# Scancommander

DMX channel order  
1: Color 1          2: Color 2          3: Gobo 1  
4: Dimmer

Scan type: ALPHA WASH 32

Short name: ALPHAW

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: CYAN                  2: MAGENTA  
3: YELLOW               4: COLOUR2; Linear CTO

5: COLOUR1              6: SHUTTER; Stop / Strobe  
7: DIMMER               8: PRISMA; Light frost  
9: FROST;heavy frost 10: ZOOM  
11: PAN                  12: TILT  
13: SPEED2; Reset      14: SPECIAL; ON-OFF  
15: PANFINE            16: TILTFINE

**Presets not available**

## Manufacturer COEF

Scan type: PERFORMANCE 200

Short name: PER200

Movement: Mirror - Brightness Master on Shutter

DMX channel order  
1: Prism                  2: Color 1          3: Gobo 1  
4: Shutter               5: Pan               6: Tilt

**Presets available**

**!! Attention !! Performance 200 doesn't accept standard DMX 512 with more than 260 ch. as send by the Scancommander**

Scan type: PERFORMANCE 1-3 6CH

Short name: PERF

Movement: Mirror - Brightness Master on Shutter

DMX channel order  
1: Iris                   2: Color 1          3: Gobo 1  
4: Shutter               5: Pan               6: Tilt

**Presets available**

Scan type: PERFORMANCE 3 9CH

Short name: PERF 3

Movement: Mirror - Brightness Master on Shutter

DMX channel order  
1: Iris                   2: Color 1          3: Gobo 1  
4: Shutter               5: Pan               6: Tilt

7: Prism                 8: Prism-Rot.      9: Frost

**Presets available**

Scan type: PERFORMANCE 4 10CH

Short name: PERF 4

Movement: Mirror - Brightness Master on Shutter

DMX channel order  
1: Iris                   2: Color 1          3: Gobo 1  
4: Shutter               5: Pan               6: Tilt  
7: Prism                 8: Dimmer           9: Frost  
10: Rotation 1

**Presets available**

Scan type: 1200 DISCO 8 CH

Short name: 1200 D

Movement: Mirror - Brightness Master on Shutter

DMX channel order  
1: Shutter               2: Color 1          3: Gobo 1  
4: Rotation 1 (gobo)  
5: Prism                 6: Rotation 3 (prism)  
7: Pan                    8: Tilt

**Presets available**

Type: COLOR SHOW 200 (color changer)

Short name: COL200

No movement - Brightness Master on Shutter

DMX channel order  
1: Shutter               2: Color 1          3: Gobo 1  
4: Prism                  5: Prism-Rot.

**Presets available**

Type: MP 250 OPTIC HR+

Short name: MP2500

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Shutter               2: Color 1          3: Color 2  
4: Frost                  5: Pan               6: Pan fine  
7: Tilt                    8: Tilt fine         9: Dimmer

**Presets available**

Type: MP 250 FRESNEL HR+

Short name: MP250F

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Shutter               2: Color 1          3: Gobo 1  
4: Rotation 1            5: Pan               6: Pan fine  
7: Tilt                    8: Tilt fine         9: Dimmer

**Presets available**

## Manufacturer COEMAR

Scan type: MICRO SCAN 400/650 AL/MSR

Short name: MICRO

Movement: Mirror - Brightness Master on Dimmer

DMX channel order  
1: Pan                    2: Tilt               3: Gobo 1  
4: Color 1               5: Shutter           6: Dimmer

**Presets available**

**!! Attention !! Micro Scans 1 doesn't accept standard DMX 512 as it is send by the Scancommander**

Scan type: MICRO SCAN 3

Short name: MICRO3

Movement: Mirror - Brightness Master on Dimmer

DMX channel order  
1: Pan                    2: Tilt               3: Dimmer  
4: Shutter               5: Gobo               6: Rotation  
7: Color 1               8: Special

Scan type: SAMURAI / ULTRASCAN

Short name: SAMURA

Movement: Mirror - Brightness Master on Dimmer

DMX channel order  
1: Pan                    2: Tilt               3: Shutter  
4: Color 1               5: Gobo 1            6: Iris  
7: Dimmer               8: Reset =Special

**Presets available.**

Scan type: MINI ULTRA 200

Short name: M ULTR

Movement: Mirror - Brightness Master on Shutter

DMX channel order  
1: Pan                    2: Tilt               3: Gobo1  
4: Color 1               5: Shutter  
6: Reset =Special

Scan type: MINI ULTRA 250

Short name: M ULTR

Movement: Mirror - Brightness Master on Dimmer

DMX channel order  
1: Pan                    2: Tilt               3: Gobo1  
4: Color 1               5: Shutter           6: Dimmer

Scan type: MINI ULTRA 2

Short name: M ULT2

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Pan	2: Tilt	3: Fixed=0
4: Shutter	5: Gobo1	6: Rotation1
7: Color1	8: Special	

Scan type: NAT MM 1200 DX 10 Channel

Short name: MM 12X

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Dimmer
4: Shutter	5: Iris	6: Focus
7: Gobo 1	8: Rotation 1	9: Color1
10: Special		

Scan type: NAT MM 1200 PRISM 13 Ch.

Short name: MM 12PR

Movement: Mirror - Brightness Trigger on Shutter

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Shutter	6: Iris
7: Focus	8: Gobo1	9: Rotation1
10: Prism	11: Rotation3(prism)	12: Color1
13: Special		

Scan type: NAT MM 1200 ZOOM 20 Ch.

Short name: MM 12ZO

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Shutter
7: Iris	8: Zoom	9: Focus
10: Gobo1	11: Rotation1(Gobo)	
12: Gobo2	13: Rotation2(Gobo)	
14: Prism	15: Rotation3(prism)	
16: Color1	17: Cyan	18: Magenta
19: Yellow	20: Special	

Scan type: NAT TM 1200 DX 12 Channel

Short name: TM 12X

Movement: Head - Brightness Trigger on Shutter

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed1=Mode	6: Shutter
7: Iris	8: Focus	9: Gobo1
10: Rotation1(gobo)	11: Color1	12: Special

Scan type: NAT TM 1200 DXP 14 Channel

Short name: TMDXPR

Movement: Head - Brightness Trigger on Shutter

DMX channel order

1: Pan	2: Pan Fine	3: Tilt
4: Tilt Fine	5: Speed 1=Mode	6: Shutter
7: Iris	8: Focus	
9: Gobo1	10: Rotation1(gobo)	
11: Prism	12: Rotation3(prism)	
13: Color1	14: Special	

Scan type: NAT TM 1200/4000 20Ch.

Short name: TM 12

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed1=Mode	6: Dimmer
7: Shutter	8: Iris	9: Focus
10: Gobo1	11: Rotation1(gobo)	
12: Gobo2	13: Rotation2(gobo)	
14: Prism	15: Rotation3(prism)	
16: Color1	17: Cyan	18: Magenta
19: Yellow	20: Special	

Scan type: NAT TM 2500 21 Ch.

Short name: TM 25

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed1=Mode	6: Dimmer
7: Shutter	8: Iris	9: Focus
10: Frost		
11: Gobo1	12: Rotation1(gobo)	
13: Gobo2	14: Rotation2(gobo)	
15: Prism	16: Rotation3(prism)	
17: Color1	18: Cyan	
19: Magenta	20: Yellow	21: Special

Scan type: CF 1200 HARD EDGE

Short name: CF12HE

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Shutter
7: Iris	8: Zoom	9: Focus
10: Gobo 1	11: Rotation 1(Gobo 1)	
12: Rotation 2 (Position Gobo 1)		
13: Gobo 2		
14: Prisma	15: Rotation 3 (Prisma)	
16: Color 1	17: Cyan	18: Magenta
19: Yellow	20: Special	

Scan type: CF 1200 SPOT

Short name: CF1200

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Shutter
7: Iris	8: Color 2 (filter)	9: Color1
10: Cyan	11: Magenta	12: Yellow
13: Special		

Scan type: PC 1000

Short name: PC1000

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Iris	3: Zoom
4: Focus	5: Frost	6: Cyan
7: Magenta	8: Yellow	

Scan type: DUETTO

Short name: DUETTO

Movement: 2 Mirror - Brightness Trigger on Shutter

DMX channel order

1: Pan=Mirror1	2: Tilt=Mirror2	3: Color1
4: Color2	5: Shutter	6: Special

Scan type: PCHMI

Short name: PCHMI

No Movement - Brightness Trigger on Dimmer

DMX channel order

1: Dimmer	2: Iris	3: Zoom
4: Focus	5: Frost	6: Cyan
7: Magenta	8: Yellow	9: Special

Scan type: CF 7 ZOOM WASH

Short name: CF7 ZW

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Tilt fine
4: Pan fine	5: Dimmer	6: Shutter
7: Focus	8: Speed 1 (Correction1)	
9: Color 1	10: Cyan	11: Magenta
12: Yellow	13: Special	

**Presets available**

Scan type: CF 7 HARD EDGE

# Scancommander

Short name: CF7 HE

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Tilt fine
4: Pan fine	5: Dimmer	6: Shutter
7: Iris	8: Zoom	9: Focus
10: Gobo 1	11: Rotation 1	
12: Rotation 2 (Gobo 1 fine)		13: Gobo 2
14: Prisma	15: Pr.Rotation	16: Frost (Lens)
17: Cyan	18: Magenta	19: Yellow
20: Special		

**Presets available**

Scan type: I-SPOT 150

Short name: I-S150

Movement: Head - **Brightness Trigger on Shutter**

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1 = Movement Speed	
6: Shutter	7: Focus	8: Gobo 1
9: G1-Rot. = Gobo Position		
10: G2-Rot. = Gobo Rotation		
11: Color 1		
12: Speed 2 = Gobo Shake and black-out		
13: Special = Lamp On, Reset		

**Presets available**

Scan type: I-SPOT 575

Short name: I-S575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Shutter
7: Iris	8: Zoom	9: Focus
10: Gobo 1	11: CYAN = Gobo 1 Position	
12: G1-Rot. = Gobo 1 Rotation		
13: Gobo 2	14: MAGENTA = Gobo 2 Position	
15: G2-Rot. = Gobo 2 Rotation		
16: Prisma	17: Color 1	18: Color 2
19: Speed 1 = Gobo and Color positioning mode		
20: Special = Lamp On, Reset, PAN/TILT speed control mode		

**Presets available**

Scan type: PROSPOT 250 LX

Short name: PS 250

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1 = Movement Speed	
6: Dimmer	7: Shutter	8: Focus
9: Gobo 1	10: G2-Rot. = Gobo Position	
11: G1-Rot. = Gobo Rotation		
12: Prisma	13: Color 1	
14: Cyan = Gobo Shake and black-out effect		
15: Magenta = Gobo Shake Amplitude		
16: Special = Lamp On, Reset		

**Presets available**

Scan type: PROWASH 250 LX

Short name: PW 250

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1 = Movement Speed	
6: Dimmer	7: Shutter	
8: Speed 2 = Black-out		
9: Focus	10: Color 1	
11: Cyan	12: Magenta	13: Yellow
14: Special = Lamp On, Reset		

**Presets available**

## Manufacturer DHA

Scan type: DIGITAL BEAMLIGHT

Short name: DIBEAM

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan coarse	3: Pan fine
4: Tilt coarse	5: Tilt fine	6: Color
7: Scroller test indication=Speed 1		
8: Focus	9: Fans=Speed 2	10: Control=Special

## Manufacturer DTS

Scan type: ARC 400

1

Short name: ARC400

DMX channel order

1: DIMMER	2: COLOUR1
3: SHUTTER; Strobe	4: ZOOM; beam angle

## Presets not available

Scan type: ARC 575

2

Short name: ARC575

DMX channel order

1: DIMMER	2: COLOUR1; colour wheel
3: SHUTTER; Strobe	4: MAGENTA
5: YELLOW	6: COLOUR2; macro colour
7: FROST no function	
8: SPECIAL; reset Lamp on-off	

## Presets not available

Scan type: ARC 1200

3

Short name: AR1200

DMX channel order

1: DIMMER	2: SHUTTER; Strobe
3: CYAN	4: MAGENTA
5: YELLOW	6: COLOUR1; macro colour
7: COLOUR 2	8: SPEED1; Ovalizer
9: SPEED2; Ovalizer Index	10: SPECIAL; reset Lamp on-off

## Presets not available

Scan type: XSCAN 575

4

Short name: XSC575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: SPEED; Pan/ Tilt	6: DIMMER
7: SHUTTER; Strobe	8: COLOUR1; colour wheel
9: COLOUR2; colour wheel function	
10: GOBO1; gobo wheel selection	
11: GO-ROT1; gobowheel index / rotation	
12: GO-ROT2; Effect wheel rotation	
13: FOCUS	14: GOBO2; static gobo wheel
15: SPECIAL3; reset Lamp on/off	

## Presets not available

Scan type: XR250 + XR5 WASH

5

Short name: XR250W

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: SPEED; Speed Pan/ Tilt	6: DIMMER
7: SHUTTER; Strobe	8: COLOUR1; colour wheel
9: CYAN	10: MAGENTA
11: YELLOW	12: SPEED2; Pan/ Tilt
13: COLOUR1; macro colour	14: IRIS
15: ZOOM; beam angle	16: SPECIAL; reset Lampe on/off

## Presets not available

Scan type: XR250 SPOT

6

Short name: XR250S

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: SPEED1; Pan/ Tilt	6: DIMMER
7: SHUTTER; Strobe	8: COLOUR1; colour wheel
9: COLOUR2; colour wheel function	
10: GOBO1; gobo wheel selection	
11: GO-ROT1; gobowheel index / rotation	

12: GO-ROT2; Effect wheel rotation  
 13: FOCUS 14: SPECIAL; reset Lamp on/off

**Presets not available**

Scan type: XR 5 SPOT 7

Short name: XR5SPO

Movement: Head - Brightness Master on Dimmer

DMX channel order

- 1: PAN 2: PANFINE
- 3: TILT 4: TILTFINE
- 5: SPEED1; Pan/ Tilt 6: DIMMER
- 7: SHUTTER; Strobe 8: COLOUR1; colour wheel
- 9: COLOUR2; colour wheel function
- 10: GOBO1; gobo wheel selection
- 11: GOBO2; gobomode
- 12: GO-ROT1; gobowheel index / rotation
- 13: SPEED2; gobo fine index 14: GO-ROT3
- 15: GO-ROT2; Effect wheel rotation 16: FOCUS
- 17: SPECIAL; reset Lamp on/off

**Presets not available**

Scan type: XR7 + XR8 WASH 8

Short name: XR7/8W

Movement: Head - Brightness Master on Dimmer

DMX channel order

- 1: PAN 2: PANFINE
- 3: TILT 4: TILTFINE
- 5: SPEED1; Pan/ Tilt 6: DIMMER
- 7: SHUTTER; Strobe 8: COLOUR1; colour wheel
- 9: CYAN 10: MAGENTA
- 11: YELLOW 12: SPEED2; Pan/ Tilt
- 13: COLOUR1; macro colour 14: IRIS
- 15: ZOOM; beam angle 16: SPECIAL; reset Lampe on/off

**Presets not available**

Scan type: XR7 SPOT 9

Short name: XR7SPO

Movement: Head - Brightness Master on Dimmer

DMX channel order

- 1: PAN 2: PANFINE
- 3: TILT 4: TILTFINE
- 5: SPEED1; Pan/ Tilt 6: DIMMER
- 7: SHUTTER; Strobe 8: COLOUR1; colour wheel
- 9: COLOUR2; colour wheel function
- 10: GOBO1; gobo wheel selection
- 11: GO-ROT1; gobowheel index / rotation
- 12: GO-ROT2+M\_FIX,0; no function
- 13: FOCUS 14: GOBO2; static gobo wheel
- 15: SPECIAL; reset Lamp on/off

**Presets not available**

Scan type: XR8 SPOT 10

Short name: XR8SPO

Movement: Head - Brightness Master on Dimmer

DMX channel order

- 1: PAN 2: PANFINE
- 3: TILT 4: TILTFINE
- 5: SPEED1; Pan/ Tilt 6: DIMMER
- 7: SHUTTER; Strobe 8: COLOUR1; colour wheel
- 9: COLOUR2; colour wheel function
- 10: GOBO1; gobo wheel selection
- 11: GO-ROT1; gobowheel mode
- 12: GO-ROT2; Index gobo/rotgobo
- 13: GOBO2; gobo fine index 14: GO-ROT3
- 15: SPEED2; Effect wheel rotation
- 16: FOCUS 17: FROST
- 18: ZOOM 19: SPECIAL; reset Lamp on/off

**Presets not available**

**Manufacturer EASYLIGHT**

Scan type: TWIST HTI 300 DMX

Short name: TWIST

Movement: Mirror - Brightness Master on Gobo

DMX channel order

- 1: Pan 2: Tilt 3: Color
- 4: Gobo

Scan type: EASYLIGHT SCAN 3

Short name: EASY 3

Movement: Mirror - Brightness Master on Shutter

DMX channel order

- 1: Tilt 2: Pan 3: Gobo 1
- 4: Iris 5: Shutter 6: Color 1

Scan type: EASYLIGHT SCAN 3D2

Short name: EASY32

Movement: Mirror - Brightness Master on Shutter

DMX channel order

- 1: Tilt 2: Pan 3: Gobo 1
- 4: Iris 5: Shutter 6: Color 1
- 7: Prisma

Scan type: EASYLIGHT RAINBOW

Short name: EASYRB

No Movement - Brightness Master on Gobo

DMX channel order

- 1: Color 1 2: Gobo 1

Scan type: EASYLIGHT COLORE LC

Short name: EASYCL

No Movement - Brightness Master on Shutter

DMX channel order

- 1: Shutter 2: Color 1

Scan type: EASYLIGHT COLORE 2

Short name: EASYC2

No Movemen - Brightness Master on Shutter

DMX channel order

- 1: Shutter 2: Color 1 3: Prisma
- 4: Gobo 1

**Manufacturer FAL**

Scan type: FAL 2000

Short name: F2000

Movement: Mirror - Brightness Master on Shutter

DMX channel order

- 1: Color 1 2: Gobo 1 3: Rotation 1
- 4: Shutter 5: Pan 6: Tilt
- 7: Prisma

Scan type: FAL 2000 XL/XLD

Short name: F2000X

Movement: Mirror - Brightness Master on Shutter

DMX channel order

- 1: Iris 2: Color 1 3: Zoom
- 4: Shutter 5: Pan 6: Tilt
- 7: Focus 8: Gobo 1 9: Rotation 1
- 10: Prisma 11: Pr.-Rotation

Scan type: FAL 2000 XLDX

Short name: F2000X

Movement: Mirror - Brightness Master on Shutter

DMX channel order

- 1: Iris 2: Color 1 3: Zoom
- 4: Shutter 5: Pan 6: Tilt
- 7: Focus 8: Gobo 1 9: Rotation 1
- 10: Prisma 11: Pr.-Rotation 12: Cyan
- 13: Magenta 14: Yellow

---

Scan type: ROULETTE 575/1200  
Short name: ROULET  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Color 1           2: Gobo 1           3: Rotation 1  
4: Shutter           5: Pan               6: Tilt  
7: Prisma            8: Color 2

---

Scan type: PROSCAN II HR  
Short name: PROSC2  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Iris               2: Color 1           3: Gobo 1  
4: Shutter           5: Pan               6: Tilt  
7: Focus             8: Gobo 2           9: Rotation 2  
10: Prisma           11: Pr.-Rotation   12: Frost  
13: Pan fine         14: Tilt fine

**Presets available**

---

Scan type: PROSCAN X HR  
Short name: PROSCX  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Iris               2: Color 1           3: Gobo 1  
4: Shutter           5: Pan               6: Tilt  
7: Focus             8: Gobo 2           9: Rotation 2  
10: Prisma           11: Pr.-Rotation   12: Pan fine  
13: Tilt fine

**Presets available**

---

Scan type: PROMO 2/3 HR  
Short name: PROMO2  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Focus             2: Rotation 2       3: Rotation 1  
4: Shutter           5: Pan               6: Tilt

---

Scan type: THREE SIXTY  
Short name: 360  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Color 1           2: Gobo 1           3: Color 2  
4: Shutter           5: Pan               6: Tilt  
7: Pan fine           8: Tilt fine

---

Scan type: THREE SIXTY 2  
Short name: 360 2  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Color 1           2: Gobo 1           3: Rotation 1  
4: Shutter           5: Pan               6: Tilt  
7: Prisma            8: Gobo 2           9: Pan fine  
10: Tilt fine

---

## Manufacturer FLY

Scan type: FOS 3  
Short name: FOS 3  
Movement: Mirror - Brightness Master on Dimmer  
DMX channel order  
1: Zoom              2: Focus             3: Gobo 1  
4: Shutter           5: Pan               6: Tilt  
7: Dimmer            8: Prisma           9: AUX=Special  
10: Cyan             11: Magenta         12: Yellow

**Presets available**

---

Scan type: FOS 4  
Short name: FOS 4  
Movement: Mirror - Brightness Master on Dimmer  
DMX channel order  
1: Iris               2: Rotation 1       3: Gobo 1  
4: Shutter           5: Pan               6: Tilt  
7: Dimmer            8: Prisma           9: AUX=Special  
10: Cyan             11: Magenta         12: Yellow

**Presets available**

---

Scan type: PALETTE  
Short name: PALETT  
No movement - Brightness Master on Dimmer  
DMX channel order  
1: Dimmer            2: Focus             3: Cyan  
4: Magenta           5: Yellow

---

## Manufacturer FUTURELIGHT

Scan type: MIRACLE  
Short name: MIRACL  
No movement - No Brightness Master  
DMX channel order  
1: Color 1           2: Rotation 1       3: Gobo 1  
4: Gobo 2

---

Scan type: CC-200  
Short name: CC-200  
No movement - Brightness Master on Dimmer  
DMX channel order  
1: Color 1           2: Color 2           3: Special  
4: Dimmer

---

Scan type: SC-330/370/ H-250  
Short name: SC-H  
Movement: Mirror - Brightness Master on Dimmer  
DMX channel order  
1: Pan                2: Tilt              3: Color 1  
4: Gobo 1

---

Scan type: PROMOTIOM SCAN  
Short name: PROMOT  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Pan                2: Tilt              3: Color 1  
4: Gobo 1            5: Rotation 1       6: Shutter  
7: Focus             8: Zoom             9: Speed 1  
10: Pan fine         11: Tilt fine

**Presets available.**

---

Scan type: GENESIS  
Short name: GENES  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Pan                2: Tilt              3: Color 1  
4: Gobo1             5: Gobo 2           6: Iris  
7: Shutter           8: Prisma

---

Scan type: VOYAGER  
Short name: VOYAG  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Pan                2: Tilt              3: Color 1  
4: Gobo 1            5: Rotation 1       6: Iris  
7: Shutter           8: Prisma

**Presets available**

---

Scan type: DUKE 1200  
Short name: DUKE 12  
Movement: Mirror - Brightness Master on Shutter  
DMX channel order  
1: Pan                2: Tilt              3: Color 1

---

4: Gobo1            5: Rotation 1       6: Iris  
7: Shutter           8: Prisma

**Presets available**

Scan type: ADVERT SCAN HR

Short name: ADVERT

Movement: Mirror - No Brightness Master

DMX channel order

1: Pan                2: Tilt               3: (not used)  
4: Gobo 1            5: Rotation 1       6: Special  
7: Focus             8: (not used)       9: Speed 1  
10: Pan fine         11: Tilt fine

Scan type: SC-250

Short name: SC-250

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Pan                2: Tilt               3: Color 1  
4: Gobo 1            5: Rotation 1       6: Shutter

Scan type: SC-530/570 HR

Short name: SC-530

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Spped 1          6: Special  
7: Color 1           8: Gobo 1           9: Dimmer  
10: Pr.-Rotation

Scan type: SC-740 HR

Short name: SC-740

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Spped 1          6: Special  
7: Color 1           8: Dimmer           9: Prisma  
10: (no used)       11: Gobo 1          12: Rotation 1  
13: Iris

Scan type: SC-780 HR

Short name: SC-780

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Spped 1          6: Special  
7: Color 1           8: Gobo 2           9: Prisma  
10: Pr.-Rotation    11: Gobo 1          12: Rotation 1  
13: Iris               14: Focus           15: Shutter  
16: Dimmer

Scan type: SC-940/980 HR

Short name: SC-940

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Spped 1          6: Special  
7: Color 1           8: Color 2          9: Prisma  
10: Gobo 2           11: Gobo 1          12: Rotation 1  
13: Iris               14: Focus           15: Shutter  
16: Dimmer

Scan type: MH 640 WASHLIGHT

Short name: MH 640

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Speed 1          6: Special  
7: Color 1           8: Cyan              9: Magenta  
10: Yellow          11: Speed 2          12: Color 2  
13: Prisma          14: (no used)       15: Shutter  
16: Dimmer

Scan type: MH 660 SPOT HR

Short name: MH 660

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Speed 1          6: Special  
7: Color 1           8: (no used)       9: Prisma  
10: Pr.-Rotation    11: Gobo 1          12: Rotation 1  
13: (no used)       14: Focus           15: Shutter  
16: Dimmer

Scan type: MH 840 WASHLIGHT

Short name: MH 840

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Speed 1          6: Special  
7: Color 1           8: Cyan              9: Magenta  
10: Yellow          11: Speed 2          12: Color 2  
13: Prisma          14: Zoom            15: Shutter  
16: Dimmer

Scan type: MH 860 SPOT

Short name: MH 860

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan                2: Tilt               3: Pan fine  
4: Tilt fine          5: Speed 1          6: Special  
7: Color 1           8: Color 2          9: Prisma  
10: Gobo 1           11: Gobo 2          12: Rotation 1  
13: Iris               14: Zoom            15: Shutter  
16: Dimmer

**Manufacturer GENIUS**

Scan type: OMEGA 2

Short name: OMEGA2

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Special           2: Color 1           3: Gobo 1  
4: Shutter           5: Pan                6: Tilt  
7: Dimmer           8: Prisma            9: Gobo 2  
10: Rotation 2

**Manufacturer GLP**

Scan type: MINI STAR TEC

Short name: M STAR

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Pan                2: Tilt               3: Speed 1  
4: Gobo 1            5: Rotation 1       6: Shutter

Scan type: MIGHTY SCAN

Short name: MIGHTY

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Pan                2: Tilt               3: Speed 1  
4: Color 1           5: Gobo 1           6: Shutter

Scan type: MAX

Short name: MAX

Movement: Head - Brightness Trigger on Shutter

DMX channel order

1: Pan                2: Tilt               3: Speed1=Pan  
4: Speed2=Tilt      5: Rotation1       6: Color1  
7: Gobo1            8: Shutter

Scan type: STARTEC 2000 EXT9

Short name: STAR X

Movement: Mirror - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Pan                2: Tilt               3: Color  
4: Shutter           5: Shutter           6: Special  
7: Speed            8: Rotation 1       9: Iris

**Presets available**



Scan type: STAR TEC 1200 12CH.

Short name: STAR12

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Pan	2: Tilt	3: Pan fine
4: Tilt fine	5: Color 1	6: Gobo 1
7: Rotation 1	8: Iris	9: Prisma
10: Shutter	11: Focus	12: Special

Scan type: JOY 300

Short name: JOY

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Color 1	6: Gobo 1
7: Shutter	8: Dimmer	9: Rotation 1
10: Prisma	11: Special	

Scan type: PATENT 575 1=FINE

Short name: PATENT

Movement: Head - Brightness Master on Shutter

DMX channel order

1: Pan fine	2: Pan	3: Tilt fine
4: Tilt	5: Speed 1	6: Speed 2
7: Special	8: Color 1	9: Gobo 1
10: Shutter	11: Rotation 1	12: Iris
13: Focus		

**Presets available**

Scan type: PATENT 575 1=COARSE

Short name: PATENT

Movement: Head - Brightness Master on Shutter

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1	6: Speed 2
7: Special	8: Color 1	9: Gobo 1
10: Shutter	11: Rotation 1	12: Iris
13: Focus		

**Presets available**

Scan type: PATENT 1200 17CH.

Short name: PATE12

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1	6: Speed 2
7: Special	8: Color 1	9: Gobo 1
10: Shutter	11: Rotation 1	12: Iris
13: Focus	14: Gobo 2	15: Rotation 2
16: Prisma	17: Dimmer	

**Presets available**

Scan type: YPOC 250 Color 11

Short name: YPOCOL

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: COLOUR1	6: CYAN
7: MAGENTA	8: YELLOW
9: SHUTTER	10: DIMMER
11: FROST	12: SPECIAL
13: SPEED2	14: SPEED1

**Presets not available**

Scan type: YPOC 250 Laser 12

Short name: YPO25L

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
--------	------------

3: TILT	4: TILTFINE
5: COLOUR1	6: GOBO1
7: GO-ROT1	8: PRISMA
9: SHUTTER	10: DIMMER
11: FOCUS	12: SPECIAL
13: SPEED2	14: SPEED1
15: FROST	

**Presets not available**

Scan type: YPOC 250 COL Basic 13

Short name: YPOCOB

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: COLOUR1	6: SHUTTER
7: DIMMER	8: FROST; special function
9: SPECIAL; movement	10: SPEED1; pan tilt

**Presets not available**

Scan type: YPOC 250 Basic 14

Short name: YPO25B

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: COLOUR1	6: GOBO1
7: SHUTTER	8: DIMMER
9: FOCUS; special function	10: SPECIAL; movement
11: SPEED2; pan tilt	12: SPEED1; Laser

**Presets not available**

Scan type: YPOC 575 GLP-MODE 15

Short name: YPO575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: COLOUR1	6: GOBO1
7: GO-ROT1	8: GOBO2
9: SHUTTER	10: DIMMER
11: FOCUS	12: PRISMA
13: SPECIAL	14: SPEED2
15: SPEED1	16: MAGENTA

**Presets not available**

Scan type: YPOC 575 Colour 16

Short name: YP575C'

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: COLOUR1	6: CYAN
7: MAGENTA	8: YELLOW
9: SHUTTER	10: DIMMER
11: FOCUS; Beamshape	12: ZOOM
13: SPECIAL	14: SPEED2; Movement
15: SPEED1; Pan Tilt	

**Presets not available**

Scan type: YPOC 575 PRO 17

Short name: YP575P

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN	2: PANFINE
3: TILT	4: TILTFINE
5: COLOUR1	6: GOBO1
7: GO-ROT1	8: GOBO2
9: SHUTTER	10: DIMMER
11: FOCUS	12: PRISMA
13: IRIS	14: SPECIAL
15: SPEED2; movement	16: SPEED1; Pan/Tilt

**Presets not available**

Scan type: YPOC 700 18  
 Short name: YPO700'  
 Movement: Head - Brightness Master on Dimmer  
 DMX channel order  
 1: PAN 2: PANFINE  
 3: TILT 4: TILTFINE  
 5: COLOUR1 6: COLOUR2  
 7: GOBO1 8: GO-ROT1  
 9: GOBO2 10: GO-ROT2  
 11: GO-ROT3 12: SHUTTER  
 13: DIMMER 14: FOCUS  
 15: ZOOM 16: FROST  
 17: PRISMA 18: IRIS  
 19: SPECIAL 20: SPEED2; movement  
 21: SPEED1; Pan/Tilt

**Presets not available**

Scan type: YPOC 700 CMY 19  
 Short name: YP700C  
 Movement: Head - Brightness Master on Dimmer  
 DMX channel order  
 1: PAN 2: PAN FINE  
 3: TILT 4: TILT FINE  
 5: COLOUR 6: CYAN  
 7: MAGENTA 8: YELLOW  
 9: GOBO1 10: GO-ROT1  
 11: GOBO2 12: SHUTTER  
 13: DIMMER 14: FOCUS  
 15: ZOOM 16: FROST  
 17: PRISMA 18: IRIS  
 19: COLOUR2; CTO 20: GO- ROT2; effect wheel  
 21: GO-ROT3; effect wheel rotation  
 22: SPECIAL 23: SPEED2  
 24: SPEED1; Pan/Tilt

**Presets not available**

**Manufacturer GRIVEN**

Scan type: CRUISER  
 Short name: CRUISE  
 Movement: Mirror -Brightness Master on Focus  
 DMX channel order  
 1: Cyan 2: Magentat 3: Yellow  
 4: Prism 5: Color 1 6: Color 2  
 7: Pan 8: Tilt 9: Gobo 1  
 10: Focus 11: Zoom

**Manufacturer HIGH END**

Scan type: TRACKSPOT  
 Short name: TRACK  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Tilt 3: Color 1  
 4: Gobo 1 5: Shutter 6: Dimmer  
 7: Speed1

**Presets available.**

Scan type: TECHNOBEAM  
 Short name: Techno  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Pan fine  
 3: Tilt 4: Tilt fine  
 5: Color 2 (Color Function 1) 6: Color 1  
 7: Gobo 2 (LithoFunction ) 8: Gobo 1  
 9: Rot. 1 (gobo coarse) 10: Rot. 2(gobo fine)  
 11: Prism 12: Effect Ro t(Rot-prism)  
 13: Focus 14: Shutter

15: Dimmer 16: Speed 1 (Mspeed)  
 17: Speed 2 (laser) 18: Special (control)

**Presets available.**

Scan type: TECHNOBEAM IRIS  
 Short name: TEC IR  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Pan fine  
 3: Tilt 4: Tilt fine  
 5: Color 2 (Color Function 1) 6: Color 1  
 7: Gobo 2 (LithoFunction ) 8: Gobo 1  
 9: Rot. 1 (gobo coarse) 10: Iris  
 11: Prism 12: Effect Rot (Rot-prism)  
 13: Focus 14: Shutter  
 15: Dimmer 16: Speed 1 (Mspeed)  
 17: Speed 2 (laser) 18: Special (control)

**Presets available.**

Scan type: INTELLABEAM 8 CH  
 Short name: I BEAM  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Tilt 3: Color 1  
 4: Gobo 1 5: Shutter 6: Dimmer  
 7: Iris 8: Speed

**Presets available.**

Scan type: INTELLABEAM 13 CH  
 Short name: I BEAM  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Pan fine 3: Tilt  
 4: Tilt fine 5: Color 1 6: Color 2  
 7: Gobo 1 8: Gobo 2 9: Shutter  
 10: Dimmer 11: Iris 12: Speed  
 13: Home=Special

**Presets available.**

Scan type: CYBERLIGHT CX MODE3  
 Short name: CYBERX  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Pan fine 3: Tilt  
 4: Tilt fine 5: Color 1 6: Gobo 1  
 7: Gobo 2 8: Rotation 1 9: Focus  
 10: Iris 11: Prism 12: Shutter  
 13: Dimmer 14: Speed 15: Control=Special

**Presets available. Set Cyberlight to Mode 3.**

Scan type: CYBERLIGHT M2/LITHO  
 Short name: CYBER  
 Movement: Mirror - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Pan fine 3: Tilt  
 4: Tilt fine 5: Color 1 6: Cyan  
 7: Magenta 8: Yellow 9: Gobo 1  
 10: Gobo 2 11: Rotation 1 12: Zoom  
 13: Focus 14: Iris 15: Prism  
 16: Frost 17: Shutter 18: Dimmer  
 19: Speed 1 20: Contol=Special

**Presets available. Set Cyberlight to Mode 2.**

**See special issue at the end of the manual.**

Scan type: STUDIO COLOR  
 Short name: ST COL  
 Movement: Head - Brightness Master on Dimmer  
 DMX channel order  
 1: Pan 2: Pan fine 3: Tilt  
 4: Tilt fine 5: Color-function=Color 2  
 6: Color 1 7: Cyan 8: Magenta  
 9: Yellow 10: Zoom 11: Frost  
 12: Shutter 13: Dimmer 14: Speed  
 15: Control=Special 16: Checksum=0 (fix)

**Presets available.**

# Scancommander

Scan type: STUDIO COLOR 250  
Short name: ST CO2  
Movement: Head - Brightness Master on Dimmer  
DMX channel order  
1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine 5: Color-function=Color 2  
6: Cyan 7: Magenta 8: Yellow  
9: Zoom 10: Focus 11: Shutter  
12: Dimmer 13: Speed 1 14: Speed 2  
15: Control=Special

## Presets available.

Scan type: STUDIO SPOT 5A  
Short name: ST SPO  
Movement: Head - Brightness Master on Dimmer  
DMX channel order  
1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine1 5: Cyan 6: Color1  
7: Magenta 8: Color 2 9: Yellow  
10: Gobo1 11: Rotation Gob 1 12: Zoom  
13: Prism 14: Gobo 2 15: Rotation Gob 2  
16: Rotation Prism 17: Frost 18: Focus  
19: Iris 20: Shutter 21: Dimmer  
22: Speed 1 23: Speed 2 24: Special

## Presets available.

Scan type: STUDIO SPOT CMY  
Short name: ST CMY  
Movement: Head - Brightness Master on Dimmer  
DMX channel order  
1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine1 5: Color 1 6: Cyan  
7: Magenta 8: Yellow 9: Color 2  
10: Gobo1 11: Rotation Gob 1 12: Zoom  
13: Prism 14: Gobo 2 15: Rotation Gob 2  
16: Ro.Prism = Gobo 2 fine 17: Frost  
18: Focus 19: Iris 20: Shutter  
21: Dimmer 22: Speed 1 23: Speed 2  
24: Special

## Presets available.

Scan type: STUDIO BEAM PC V1.0  
Short name: ST BEA  
Movement: Head - Brightness Master on Dimmer  
DMX channel order  
1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine1 5: Color 1 6: Cyan  
7: Magenta 8: Yellow 9: Rotation 1  
10: Zoom 11: Frost 12: Shutter  
13: Dimmer 14: Speed 1 15: Speed 2  
16: Special

## Presets available.

Scan type: STUDIO SPOT 250  
Short name: ST SP2  
Movement: Head - Brightness Master on Dimmer  
DMX channel order  
1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine1 5: Color 2 6: Color 1  
7: Gobo 2 8: Gobo 1 9: Rotation 1  
10: Prisma 11: Pr.-Rotation 12: Focus  
13: Iris 14: Shutter 15: Dimmer  
16: Speed 1 17: Speed 2 18: Special

## Presets available.

Scan type: TECHNPRO 12CH.  
Short name: TECHPR  
No Movement - Brightness Master on Dimmer  
DMX channel order  
1: Rotation1(color1) 2: Color1  
3: Rotation2(color2) 4: Color2  
5: Prism 6: Rotation3(prism)  
7: Focus 8: Shutter 9: Dimmer  
10: Speed1(motor) 11: Speed2(laser) 12: Special

Scan type: TRACKSPOT MAINLIGHT

Short name: TRAC M  
No Movement - Brightness Master on Dimmer  
DMX channel order  
1: Color 1 2: Gobo 1 3: Shutter  
4: Dimmer 5: Speed 1

Scan type: TECHNORAY HR 14 CH.  
Short name: TECHRA  
No Movement - Brightness Master on Dimmer  
DMX channel order  
1: Color 2 2: Color 1 3: Gobo 2  
4: Gobo 1 5: Rotation 1 6: Rotation 2  
7: Prisma 8: Pr.-Rotation 9: Focus  
10: Shutter 11: Dimmer 12: Speed 1 13:  
Speed 2 14: Special

Scan type: DATAFLASH  
Short name: DATAFL  
No Movement - Brightness Master on Dimmer  
DMX channel order  
1: Dimmer 2: Prisma 3: Shutter

## Manufacturer JB

Scan type: VARYSCAN P3 10  
Short name: VS P3  
Movement: Head - Brightness Master on Dimmer  
DMX channel order  
1: PAN 2: TILT  
3: PANFINE 4: TILTFINE  
5: SPECIAL; Sicherheit 6: SHUTTER  
7: DIMMER 8: IRIS  
9: FOCUS 10: GOBO1  
11: GO-ROT1; keine Funktion  
12: GOBO2 13: GO-ROT2  
14: COLOUR1 15: COLOUR2 1 6 :  
MAG+M\_FIX,0; keine Funktion  
17: PRISMA 18: RO3  
19: FROST; keine Funktion  
20: SPEED1; bewegung echtzeit/verzögert  
21: SPEED2; effekte echtzeit/verzögert  
22: ZOOM; dimmer schliesseffekte

## Presets not available

Scan type: VARYSCAN SYSTEM 1 Protocol: Analogue  
Short name: VS 1  
Movement: Mirror - No Brightness Master  
DMX channel order  
1: Pan 2: Tilt 3: Gobo 1  
4: Color 1

Scan type: VARYSCAN 3 SPEC+ 6C  
Short name: VS3SP6  
Movement: Mirror - Brightness Master on Dimmer  
DMX channel order  
1: Pan 2: Tilt 3: Gobo 1  
4: Color 1 5: Dimmer 6: Rotation 1

Scan type: VARYSCAN 3 SPECIALP  
Short name: VS3SP8  
Movement: Mirror - Brightness Master on Dimmer  
DMX channel order  
1: Pan 2: Tilt 3: Gobo 1  
4: Color 1 5: Dimmer 6: Speed1  
7: Rotation 1 8: Prism

Scan type: VARYSCAN III 700  
Short name: VS3700  
Movement: Mirror - Brightness Master on Dimmer /Shutter

**DMX channel order**

1: Pan	2: Tilt	3: Gobo 1
4: Color 1	5: Shutter	6: Iris
7: Dimmer	8: Focus	9: Rotation 1
10: Prism	11: Magenta	12: Yellow
13: Cyan		

**Presets available**

Scan type: VARYSCAN IV 1200

Short name: VS 4

Movement: Mirror - Brightness Master on Shutter

**DMX channel order**

1: Pan	2: Tilt	3: Gobo 1
4: Color 1	5: Shutter	6: Iris
7: Rotation 1	8: Prisma	

**Presets available**

Scan type: VARYSCAN IV 1200 EV

Short name: VS 4EV

Movement: Mirror - Brightness Master on Shutter

**DMX channel order**

1: Pan	2: Tilt	3: Gobo 1
4: Color 1	5: Shutter	6: Iris
7: Rotation 1	8: Prisma	9: Gobo 2
10: Pan fine	11: Tilt fine	

**Presets available**

Scan type: VARYSCAN 5 MV

Short name: VS5 MV

Movement: Mirror - Brightness Master on Shutter

**DMX channel order**

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Color 2	6: Color 1
7: Shutter	8: Focus	9: Iris
10: Zoom	11: Speed 1	12: Gobo 1
13: Rotation 2	14: Gobo 2	15: Gobo 2
16: Rotation 1	17: Prism	18: Rotation3(prism)
19: Frost	20: Cyan	21: Yellow
22: Magenta		

Scan type: VARYSCAN 6 SPOT

Short name: VS6 SP

Movement: Head - Brightness Master on Dimmer

**DMX channel order**

1: Pan	2: Tilt	3: Gobo 1
4: Color 1	5: Dimmer	6: Iris
7: Rotation 1	8: Prisma	9: Focus
10: Shutter	11: Pan fine	12: Tilt fine

Scan type: VARYSCAN 6 WASH

Short name: VS6 WA

Movement: Head - Brightness Master on Dimmer

**DMX channel order**

1: Pan	2: Tilt	3: Cyan
4: Magenta	5: Yellow	6: Iris
7: Dimmer	8: Shutter	9: Special
10: (no used)	11: Pan fine	12: Tilt fine

Scan type: VARYCOLOR 2000

Short name: VCOLOR

Movement: Mirror - Brightness Master on Shutter

**DMX channel order**

1: Special	2: Fixed=0	3: Gobo 1
4: Color 1	5: Shutter	6: Prism

**Manufacturer LAMPO**

Scan type: SINTESI+SUPER

Short name: SINTES

Movement: Mirror - Brightness Master on Iris

**DMX channel order**

1: Iris	2: Pan	3: Tilt
4: Color 1	5: Gobo 1	6: Shutter

**Presets available**

Scan type: COLUMBUS

Short name: COLUMB

Movement: Mirror - Brightness Master on Iris

**DMX channel order**

1: Iris	2: Pan	3: Tilt
4: Color 1	5: Gobo 2	6: Shutter
7: Rotation 1	8: Focus	9: Gobo 1
10: Prism		

**Manufacturer LICHT TECHNIK**

Scan type: MOTOR YOKE 330,300

Short name: M YOKE

Movement: Head - Brightness Master on Dimmer

**DMX channel order**

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1(Pan)	6: Speed 2(Tilt)
7: Focus	8: Color 1	9: Color2=Speed
10: Prism(Ventilator)		11: Dimmer
12: Shutter(Speed)	13: Cyan=Flap Rot.	14: Magenta=Flap1
15: Yellow=Flap2	16: Gobo 1=Flap3	17: Gobo 2=Flap4

**Manufacturer LITEBEAM**

Scan type: SWING

Short name: SWING1

Movement: Mirror - Brightness Master on Dimmer

**DMX channel order**

1: Dimmer	2: Color 1	3: Gobo 1
4: Shutter	5: Pan	6: Tilt

Scan type: SWING II

Short name: SWING2

Movement: Mirror - Brightness Master on Dimmer

**DMX channel order**

1: Iris	2: Color 1	3: Gobo 1
4: Shutter	5: Pan	6: Tilt
7: Dimmer	8: Rotation 1	9: Focus
10: Color 2	11: Gobo 2	12: Rotation 2

**Presets available.**

Scan type: CHANDRA I

Short name: CHAN 1

Movement: Head - Brightness Master on Dimmer

**DMX channel order**

1: Dimmer	2: Color 1	3: Gobo 1
4: Shutter	5: Pan	6: Tilt
7: Rotation		

Scan type: CHANDRA II

Short name: CHAN 2

Movement: Head - Brightness Master on Dimmer

**DMX channel order**

1: Iris	2: Color 1	3: Gobo 1
4: Shutter	5: Pan	6: Tilt
7: Dimmer	8: G.Swing=Rot.	9: Focus
10: Rotation 3	11: Gobo 2	12: G.Rot=Rotation 2

Scan type: SWING II 16 BITS

Short name: SWING2

Movement: Mirror - Brightness Master on Dimmer

**DMX channel order**

1: Iris	2: Color 1	3: Gobo 1
4: Shutter	5: Pan coarse	6: Pan fine
7: Tilt coarse	8: Tilt fine	9: Dimmer
10: G.Swing=Rot.	11: Focus	12: Color 2
13: Gobo 2	14: G.Rot.=Rotation 2	

**Presets available.**

Scan type: CHANDRA II 16 BITS

Protocol: DMX 512

Short name: CHAN 2

Movement: Mirror - Brightness Master on Dimmer

**DMX channel order**

# Scancommander

1: Iris                    2: Color 1                3: Gobo 1  
4: Shutter                5: Pan coarse            6: Pan fine  
7: Tilt coarse            8: Tilt fine              9: Dimmer  
10: G.Swing=Rot. 1      11: Focus                12: Rotation 3  
13: Gobo 2                14: Rotation 2

## Manufacturer LYTE QUEST

Scan type: MOTORHEAD

Short name: MOTORH

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan                    2: Tilt                    3: Color 1  
4: Gobo 1                5: Dimmer

## Manufacturer MAD LIGHTING

Scan type: QSCAN

Short name: CSCAN

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan                    2: Tilt                    3: Gobo 1  
4: Color 1                5: Dimmer

Scan type: SCAN 611

Short name: SCAN61

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan                    2: Tilt                    3: Gobo 1  
4: Color 1                5: Dimmer                6: Rotation

## Manufacturer MARTIN

Scan type: ROBOSCAN 804/805/1004/16

Short name: R 805

Movement: Mirror - No Brightness Master

DMX channel order

1: Shutter                2: Color                    3: Gobo 1  
4: Pan                    5: Tilt

**Presets available.**

Scan type: PRO 218 M2

Short name: PRO218

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Gobo 1                5: Pan                    6: Tilt  
7: Speed

**Presets available**

Scan type: PRO 218 Mode3 High Res.

Short name: PRO218

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Gobo 1                5: Pan coarse            6: Pan fine  
7: Tilt coarse            8: Tilt fine

**Presets available**

Scan type: PRO 518

Short name: PRO518

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Gobo 1                5: Prism                    6: Pan  
7: Tilt                    8: Speed 1                9: Speed 2

**Presets available.**

Scan type: PRO 518 H.Res Mode 3

Short name: PRO518

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Gobo 1                5: Prism                    6: Pan  
7: Pan fine                8: Tilt                    9: Tilt fine

**Presets available.**

Scan type: PRO 812

Short name: PRO812

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Shutter                2: Color 1                3: Gobo 1  
4: Pan                    5: Tilt                    6: Speed 1  
7: Speed 2

**Presets available.**

Scan type: PRO 918 MODE 4

Short name: PRO918

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Color 2                5: Gobo 1                6: Rotation 1  
7: Gobo 2                8: Focus                    9: Iris  
10: Prisma                11: Pan                    12: Pan fine  
13: Tilt                    14: Tilt fine              15: Speed 1              16: Speed 2

Scan type: R 1020

Short name: R 1020

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Color 2                5: Gobo 1                6: Gobo 2  
7: Focus                    8: Iris                    9: Prism  
10: Pan                    11: Tilt                    12: Speed 1

**Presets available.**

Scan type: R 1220

Short name: R 1220

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Color 2                5: Gobo 1                6: Gobo 2  
7: Focus                    8: Iris                    9: Prism  
10: Pan                    11: Tilt                    12: (M-)Speed 1  
13: (C-)Speed 2        14: G-Speed=Special  
15: Rotation 3        16: Gobo Index + Rotation=Rotation 1

**Presets available.**

Scan type: IMAGE SCAN MODE 2

Short name: IMAGE

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Focus                    3: Rotation 1  
4: Rotation 2            5: Pan                    6: Pan fine  
7: Tilt                    8: Tilt fine              9: Speed 1

Scan type: R 1220 BETA

Short name: R 1220

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Color 2                5: Gobo 1                6: Gobo 2  
7: Focus                    8: Iris                    9: Prism  
10: Pan coarse            11: Pan fine              12: Tilt coarse  
13: Tilt fine

**Presets available.**

Scan type: R 1220 XR Mode 3

Short name: 1220XR

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter                2: Dimmer                3: Color 1  
4: Gobo 1                5: Gobo 2                6: Rotation 1

7: Focus                   8: Iris                   9: Prism  
10: Pan                   11: Tilt                  12: Speed 1  
13: Speed 2

**Presets available.**

Scan type: R 1220 CMY M1

Short name: 1220 C

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter               2: Dimmer               3: Color 1  
4: Color 2               5: Cyan                  6: Magenta  
7: Yellow               8: Gobo 1               9: Gobo 2  
10: Rotation 1           11: Focus               12: Iris  
13: Prisma               14: Pan                  15: Tilt

**Presets available.**

Scan type: R 1220 CMY M2

Short name: 1220 C

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter               2: Dimmer               3: Color 1  
4: Color 2               5: Cyan                  6: Magenta  
7: Yellow               8: Gobo 1               9: Gobo 2  
10: Rotation 1           11: Focus               12: Iris  
13: Prism               14: Pan coarse           15: Pan fine  
16: Tilt coarse           17: Tilt fine

**Presets available.**

Scan type: R 1220 CMY M3

Short name: 1220 C

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter               2: Dimmer               3: Color 1  
4: Color 2               5: Cyan                  6: Magenta  
7: Yellow               8: Gobo 1               9: Gobo 2  
10: Rotation 1           11: Focus               12: Iris  
13: Prisma               14: Pan                  15: Tilt  
16: Speed 1              17: Speed 2

**Presets available.**

Scan type: R 1220 RPR M4

Short name: 1220 RP

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter               2: Dimmer               3: Color 1  
4: Color 2               5: Gobo 1               6: Gobo 2  
7: Rotation 1           8: Focus               9: Iris  
10: Prism               11: Prism Rotation      12: Pan coarse  
13: Pan fine           14: Tilt coarse          15: Tilt fine  
16: (M-)Speed 1       17: (D+C) Speed 2

Scan type: PAL 1200 DMX+8 Mode 4

Short name: PAL

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

**1-8: Patch Beam Sharper 1a-4b as EXTRA channels**  
9: Rotation3(B.S)   10: Shutter           11: Dimmer  
12: Cyan             13: Magenta           14: Yellow  
15: Color 1          16: Gobo 1           17: Rotation 1(gobo)  
18: Focus           19: Zoom              20: Frost  
21: Pan coarse      22: Pan fine          23: Tilt coarse      24:  
Tilt fine           25: Speed 1          26: Speed 2

**Presets available.** Patch first 8 channels as EXTRA and set DMX address at Scancommander to lamp address +8. Mode 4 with SPEC ->dPr2 set to ON.

Scan type: PAL 1200 DMX+6 Mode 4                   Protocol: DMX 512

Short name: PAL

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

**1-6: Patch Beam Sharper 1a-3b as EXTRA channels**  
7: Rot.2=B.S. 4a   8: Rot.3=B.S.4b   9: Special=B.S.Rot.  
10: Shutter       11: Dimmer       12: Cyan  
13: Magenta       14: Yellow       15: Color 1  
16: Gobo 1       17: Rotation 1   18: Focus  
19: Zoom         20: Frost       21: Pan coarse   22:

Pan fine               23: Tilt coarse      24: Tilt fine  
25: Speed 1           26: Speed 2

**Presets available.** Patch first 6 channels as EXTRA and set DMX address at Scancommander to lamp address +6. Mode 4 with SPEC ->dPr2 set to ON.

Scan type: PAL 1200 DISCO Mode 4

Short name: PAL DI

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Shutter           2: Dimmer           3: Cyan  
4: Magenta           5: Yellow           6: Color 1  
7: Gobo 1           8: Rotation 1       9: Prism  
10: Prism-Rot.       11: Focus           12: Zoom           13:  
Iris 14:           Frost               15 Pan coarse  
16: Pan fine       17: Tilt coarse     18: Tilt fine  
19: Speed 1       20: Speed 2

**Presets available.**

Scan type: MAC 2000 PROFILE

Short name: MA2000

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Shutter           2: Dimmer           3: Cyan  
4: Magenta           5: Yellow           6: Color 2  
7: Color 1           8: Gobo 1           9: Rotation 1  
10: Special = Gobo 1   11:Gobo 2  
12: Rotation 2       13: Frost = Gobo 2   14: Rotation fine  
14: Prisma           15 Pr.-Rotation     16: Iris  
17: Focus           18: Zoom           19: Pan  
20: Pan fine       21: Tilt           22: Tilt fine  
23: Speed 1       24: Speed 2

**Presets available.**

Scan type: MAC 2000 WASH 21CH.

Short name: MA20WA

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Shutter           2: Dimmer           3: Cyan  
4: Magenta           5: Yellow           6: Prisma  
7: Color 1           8: Color 2           9: Zoom  
10: Gobo 1 = Blade1A   11: Gobo 2 = Blade2A  
12: Rotation 1 = Blade3A   13: Rotation 2 = Blade4A  
14: Ro.-Prisma = Blades<>  
15: Special = Macros           16: Pan  
17: Pan fine       18: Tilt           19: Tilt fine  
20: Speed 1       21: Speed 2

**Presets available.**

Scan type: MAC 1200 Mode 4

Short name: MAC 12

Movement Head - Brightness Master on Dimmer

DMX channel order

1: Shutter           2: Dimmer           3: Cyan  
4: Magenta           5: Yellow           6: Color 1  
7: Gobo 1           8: Frost           9: Pan coarse  
10: Pan fine       11: Tilt coarse     12: Tilt fine  
13: Speed 1       14: Speed 2

**Presets available**

Scan type: MAC 600 Mode 4

23

Short name: MAC600

Movement Head - Brightness Master on Dimmer

DMX channel order

1: Shutter           2: Dimmer           3: Cyan  
4: Magenta           5: Yellow           6: Color 1  
7: Beam sharper 1 = Gobo 1  
8: Beam sharper 2 = Gobo 2           9: Pan coarse  
10: Pan fine       11: Tilt coarse     12: Tilt fine  
13: Speed 1       14: Speed 2

**Presets available**

Scan type: MAC 700 Wash Basic

24

Short name: MAC70W

Movement Head - Brightness Master on Dimmer

DMX channel order

# Scancommander

1: SHUTTER  
3: CYAN  
5: YELLOW  
7: COLOUR1  
9: GOBO2; Macros  
11: PAN  
13: TILT  
15: SPEED1; pan/tilt speed  
2: DIMMER  
4: MAGENTA  
6: SPECIAL;ctc fine  
8: GOBO1; Beam shaper  
10: ZOOM  
12: PANFINE  
14: TILTFINE  
16: SPEED2; effects speed

## Presets available

Scan type: MAC 700 Prof Basic  
Short name: MAC70P 25

Movement Head - Brightness Master on Dimmer  
DMX channel order

1: SHUTTER  
3: CYAN  
5: YELLOW  
7: GOBO1; Gobo wheel1  
9: GO-ROT2; gobo rot/index LSB  
10: GOBO2; Gobo wheel 2  
11: GO-ROT3; static gobo colour wheel macros  
12: SPEED2; Gobo animation wheel pos / func  
13: SPEED3; gobo animation wheel angle / dir/speed  
14: PRISMA  
16: FOCUS  
18: PAN  
20: TILT  
22: SPEED1;pan/tilt  
2: DIMMER  
4: MAGENTA  
6: COLOUR1;colour wheel  
8: GO-ROT1; gobo rot/index MSB  
10: FOCUS  
12: PRISMA  
14: PANFINE  
16: TILTFINE  
18: PANFINE  
19: PANFINE  
21: TILTFINE

## Presets available

Scan type: MAC 600 NT Mode 4

Short name: M600NT

Movement Head - Brightness Master on Dimmer

DMX channel order

1: Shutter  
4: Magenta  
7: Color 1  
10: Pan  
13: Tilt fine  
2: Dimmer  
5: Yellow  
8: Special  
11: Pan fine  
14: Speed 1  
3: Cyan  
6: Color 2  
9: Frost  
12: Tilt  
15: Speed 2

## Presets available

Scan type: MAC 500 Mode 4

Short name: MAC500

Movement Head - Brightness Master on Dimmer

DMX channel order

1: Shutter  
4: Color2  
7: Gobo2  
10: Prism  
13: Tilt  
14: Speed 2  
2: Dimmer  
5: Gobo1  
8: Focus  
11: Pan  
14: Tilt fine  
3: Color1  
6: Rotation1(gobo)  
9: Iris  
12: Pan fine  
15: Speed 1

## Presets available

Scan type: MAC 300 Mode 4

Short name: MAC300

Movement Head - Brightness Master on Dimmer

DMX channel order

1: Shutter  
4: Magenta  
7: Frost  
10: Tilt  
13: Speed 2  
2: Dimmer  
5: Yellow  
8: Pan  
11: Tilt fine  
3: Cyan  
6: Color 1  
9: Pan fine  
12: Speed 1

## Presets available

Scan type: MAC 250 Mode 4 30

Short name: MAC250

Movement Head - Brightness Master on Dimmer

DMX channel order

1: Shutter  
4: Gobo1  
7: Prism  
10: Tilt  
2: Dimmer  
5: Rotation1(gobo)  
8: Pan  
11: Tilt fine  
3: Color1  
6: Focus  
9: Pan fine  
12: Speed 1

13: Speed 2

## Presets available

Scan type: MAC 250 Entour EX 32

Short name: M25EEX

Movement Head - Brightness Master on Dimmer

DMX channel order

1: SHUTTER  
3: SPECIAL; Dimmer fine  
5: COLOUR2  
7: GO-ROT1  
9: GOBO2  
11: FROST; focus fine  
13: PAN  
15: TILT  
17: SPEED1  
2: DIMMER  
4: COLOUR1  
6: GOBO1  
8: GO-ROT2; Gobo rotation fine  
10: FOCUS  
12: PRISMA  
14: PANFINE  
16: TILTFINE  
18: SPEED2

## Presets available

Scan type: MAC 250 Krypton EX 34

Short name: M25KEX

Movement Head - Brightness Master on Dimmer

DMX channel order

1: SHUTTER  
3: SPECIAL; Dimmer fine  
5: COLOUR2  
7: GO-ROT1  
9: FOCUS  
11: PRISMA  
13: PANFINE  
15: TILTFINE  
17: SPEED2  
2: DIMMER  
4: COLOUR1  
6: GOBO1  
8: GOBO2  
10: FROST; focus fine  
12: PAN  
14: TILT  
16: SPEED1

## Presets available

Scan type: MAC 250 WASH 16-Bt 35

Short name: MAC25W

Movement Head - Brightness Master on Dimmer

DMX channel order

1: SHUTTER  
3: CYAN  
5: YELLOW  
7: FROST  
9: PANFINE  
11: TILTFINE  
13: SPEED2; Effekt  
2: DIM+M\_FADE,0  
4: MAGENTA  
6: COLOUR1; Farbraddrehung  
8: PAN  
10: TILT  
12: SPEED1; PAN/TILT

## Presets available

Scan type: MINI MAC PR M4

Short name: MIMACP

Movement Head - Brightness Master on Shutter

DMX channel order

1: Shutter  
4: Rotation 1  
7: Tilt  
10: Speed 2  
2: Color 1  
5: Pan  
8: Tilt fine  
3: Gobo 1  
6: Pan fine  
9: Speed 1

## Presets available

Scan type: MINI MAC WASH M4

Short name: MIMACP

Movement Head - Brightness Master on Shutter

DMX channel order

1: Shutter  
4: Pan fine  
7: Speed 1  
2: Color 1  
5: Tilt  
8: Speed 2  
3: Pan  
6: Tilt fine

## Presets available

Scan type: MX-1

Short name: MX-1

Movement Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer 2: (no used) 3: Color 1  
4: Pan 5: Tilt 6: Speed 1

Scan type: ROBOCOLOR MSD

Short name: MSD

No Movement: - Brightness Master on Dimmer

DMX channel order

1: Shutter 2: Dimmer 3: Color 1  
4: Color 2

## Presets available

Scan type: ROBOCOLOR PRO 400 5

Short name: ROBCOP

No Movement: - Brightness Master on Dimmer

DMX channel order

1: Shutter 2: Dimmer 3: Color 1  
4: Color 2 5: Gobo 1

Scan type: ROBOCOLOR PRO 400 7

Short name: ROBCOP

No Movement: - Brightness Master on Dimmer

DMX channel order

1: Shutter 2: Dimmer 3: Color 1  
4: Color 2 5: Gobo 1 6: (C-)Speed 1  
7: (D-)Speed 2

Scan type: ROBOCOLOR

No Movement: - No Brightness Master

DMX channel order

1: Shutter 2: C. H1=Color 1 3: C. H2=Color 2  
4: C. H3=Gobo 1 5: C. H4=Gobo 22 6: Speed

Scan type: ROBOZAP

Short name: ZAP

No Movement: - No Brightness Master

DMX channel order

1: Shutter 2: Color 1 3: Color 2  
4: Rotation

Scan type: ROBOZAPMSR

Short name: ZAPMSR

No Movement: - No Brightness Master

DMX channel order

1: Shutter 2: Color 1 3: Color 2  
4: Gobo 1 5: Gobo 2 6: Rotation 1

Scan type: CENTREPIECE H3+4=GO

Short name: CENTRE

No Movement: - No Brightness Master

DMX channel order

1: Shutter 2: Tilt 1=Pan 3: Tilt 2=Tilt  
4: Tilt 3=Gobo 1 5: Tilt 4=Gobo 2 6: Color 1  
7: Rotation 1

## Manufacturer MORPHEUS

Scan type: PANA BEAM

Short name: PANA

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan 2: Tilt 3: Color 1  
4: Dimmer

Scan type: COLOUR FADER+DIMMER

Short name: CFADE+

No Movement - Brightness Master on Dimmer

DMX channel order

1: Yellow 2: Magenta 3: Cyan  
4: Dimmer

## Manufacturer MOVITEC

Scan type: WL-250 WASHLIGHT

Short name: WL250

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine 5: Speed 1 6: Special  
7: Color 1 8: Cyan 9: Magenta  
10: Yellow 11: Speed 2 12: Color 2  
13: Prisma 14: (no used) 15: Shutter  
16: Dimmer

Scan type: SL-250 SPOTLIGHT

Short name: SL-250

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine 5: Speed 1 6: Special  
7: Color 1 8: (no used) 9: Prisma  
10: Pr.-Rotation 11: Gobo 1 12: Rotation 1  
13: (no used) 14: Focus 15: Shutter  
16: Dimmer

Scan type: WL-575 WASHLIGHT

Short name: WL-575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine 5: Speed 1 6: Special  
7: Color 1 8: Cyan 9: Magenta  
10: Yellow 11: Speed 2 12: Color 2  
13: Prisma 14: (no used) 15: Shutter  
16: Dimmer

Scan type: SL-575 SPOTLIGHT

Short name: SL-575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan 2: Pan fine 3: Tilt  
4: Tilt fine 5: Speed 1 6: Special  
7: Color 1 8: (no used) 9: Prisma  
10: Rotation 3 11: Gobo 1 12: Rotation 1  
13: (no used) 14: Focus 15: Shutter  
16: Dimmer

## Manufacturer OBIES

Scan type: XESCAN

Short name: SESCOAN

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Speed 1 2: Pan 3: Pan fine  
4: Tilt 5: Tilt fine 6: Dimmer  
7: Shutter 8: Zoom 9: Color 1  
10: Special

## Manufacturer OMICRON

Scan type: LASERAGE BASIC

Short name: LASERA

Movement: Mirror - No Brightness Master

DMX channel order

1: Function=Gobo 1 2: Graphic=Gobo2  
3: Scanspeed=Shutter 4: Clipping=Iris  
5: Magenta 6: Yellow  
7: Cyan 8: Colormode=Color 1 9:  
Pan 10: Tilt  
11: Clones=Prism 12: Size=Zoom  
13: Z-Position=Focus 14: X-Rot.=Speed 1



# Scancommander

15: Y-Rot.=Speed 2      16: Z- Rot.=Special

## Manufacturer OPTIKNET

Scan type: SOLAR SYSTEM 1

Short name: SOLAR

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Gobo 1      2: Prisma      3: Rotation 1  
4: Gobo 2      5: Speed 1      6: Rotation 2  
7: Dimmer

## Manufacturer ROBE

Scan type: COLORSPOT 1200 (E) AT Mode1 1

Short name: COSP12

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Pan fine      3: Tilt  
4: Tilt fine      5: Speed 1      6: Special  
7: Color 1      8: Cyan      9: Magenta  
10: Yellow      11: Color 2      12: Speed 2  
13: Gobo 1      14: Rotation 1      15: Gobo 2  
16: Rotation 2      17: Prisma      18: Pr. Rotation  
19: Frost      20: Iris      21: Zoom  
22: Focus      23: Shutter      24: Dimmer

### Presets available

Scan type: COLORSPOT 170 AT Mode1 2

Short name: COSP17

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Tilt      3: Pan fine  
4: Tilt fine      5: Speed 1      6: Special  
7: Color 1      8: Gobo 1      9: Rotation 1  
10: Focus      11: Shutter      12: Dimmer

### Presets available

Scan type: MSZOOM 250 XT Mode1 3

Short name: MSZOOM

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Tilt      3: Pan fine  
4: Tilt fine      5: Speed 1      6: Special  
7: Color 1      8: Color 2      9: Prisma  
10: Pr. Rotation      11: Gobo 1      12: Rotation 1  
13: Zoom      14: Focus      15: Shutter  
16: Dimmer

### Presets available

Scan type: SPOT 575 XT Mode1 4

Short name: SPO575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Tilt      3: Pan fine  
4: Tilt fine      5: Speed 1      6: Special  
7: Color 1      8: Color 2      9: Prisma  
10: Gobo 2      11: Gobo 1      12: Rotation 1  
13: Iris      14: Focus      15: Shutter  
16: Dimmer

### Presets available

Scan type: SPOT 575 AT MODE 4 5

Short name: SP575A

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: PAN      2: PANFINE  
3: TILT      4: TILTFINE  
5: SPEED1      6: SPECIAL; Lamp On/Off, Reset  
7: GOBO2; Pan/Tilt Macro selection  
8: SPEED2      9: COLOUR1  
10: COLOUR2      11: GOBO1  
12: GO-ROT1      13: GO-ROT2  
14: PRISMA      15: GO-ROT3  
16: FROST      17: IRIS  
18: ZOOM      19: FOCUS

20: SHUTTER

21: DIMMER

### Presets available

Scan type: SPOT 250 XT Mode1 6

Short name: SPO250

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Tilt      3: Pan fine  
4: Tilt fine      5: Speed 1      6: Special  
7: Color 1      8: (not used)      9: Prisma  
10: Pr. Rotation      11: Gobo 1      12: Rotation 1  
13 (not used)      14: Focus      15: Shutter  
16: Dimmer

### Presets available

Scan type: SPOT 250 AT Mode 1 7

Short name: SP250A'

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: PAN      2: PANFINE  
3: TILT      4: TILTFINE  
5: SPEED1; Pan/Tilt      6: SPECIAL; Lamp On/Off, Reset  
7: COLOUR1      8: FROST ;Colorwheel fine  
9: GOBO1      10: GO-ROT1  
11: GOBO2      12: PRISMA  
13: GOROT3      14: FOCUS  
15: GO-ROT2; Focus fine      16: SHUTTER  
17: DIMMER      18: SP2; DIMMER FINE

### Presets available

Scan type: SPOT 160 XT Mode1 8

Short name: SPO160

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Tilt      3: Pan fine  
4: Tilt fine      5: Speed 1      6: Color 1  
7: Gobo 1      8: Rotation 1      9: Shutter

### Presets available

Scan type: SPOT 150 XT Mode1 9

Short name: SPO150

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Tilt      3: Pan fine  
4: Tilt fine      5: Speed 1      6: Color 1  
7: Gobo 1      8: Shutter

### Presets available

Scan type: WASH 575 XT Mode1 10

Short name: WAS575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan      2: Tilt      3: Pan fine  
4: Tilt fine      5: Speed 1      6: Special  
7: Color 1      8: Cyan      9: Magenta  
10: Yellow      11: Speed 2      12: Color 2  
13: Frost      14: Zoom      15: Shutter  
16: Dimmer

### Presets available

Scan type: WASH 575 AT MODE 2 11

Short name: WA575A

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: PAN      2: PANFINE  
3: TILT      4: TILTFINE  
5: SPEED1      6: SPECIAL; Lamp On/Off, Reset

7: COLOUR1  
 9: MAGENTA  
 11: GOBO1; conversion temperature filter  
 12: SPEED2; Speed of CMY and Conv.temp.filter  
 13: PRISMA; color macros 14: FROST; effect wheel  
 15: IRIS; Beam shaper 16: ZOOM  
 17: SHUTTER 18: DIMMER  
 8: CYAN  
 10: YELLOW

**Presets available**

Scan type: WASH 250 XT Mode1 12

Short name: WAS250

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Pan fine
4: Tilt fine	5: Speed 1	6: Special
7: Color 1	8: Cyan	9: Magenta
10: Yellow	11: Speed 2	12: Color 2
13: Frost	14: (not used)	15: Shutter
16: Dimmer		

**Presets available**

Scan type: WASH 150 XT Mode1 13

Short name: WAS150

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Pan fine
4: Tilt fine	5: Speed 1	6: Color 1
7: Shutter	8: Dimmer	

**Presets available**

Scan type: SCAN 1200 XT Mode1 14

Short name: SC1200

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Pan fine
4: Tilt fine	5: Speed 1	6: Special
7: Color 1	8: Color 2	9: Prisma
10: Gobo 2	11: Gobo 1	12: Rotation 1
13: Iris	14: Focus	15: Shutter
16: Dimmer		

**Presets available**

Scan type: SCAN 575 XT Mode1 15

Short name: SC 575

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Pan fine
4: Tilt fine	5: Speed 1	6: Special
7: Color 1	8: Color 2	9: Prisma
10: Pr. Rotation	11: Gobo 1	12: Rotation 1
13: Iris	14: Focus	15: Shutter
16: Dimmer		

**Presets available**

Scan type: SCAN 250 XT Mode1 16

Short name: SC 250

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Pan fine
4: Tilt fine	5: Speed 1	6: Special
7: Color 1	8: (not used)	9: Frost
10: Prisma	11: Gobo 1	12: Rotation 1
13 (not used)	14: Focus	15: Shutter
16: Dimmer		

**Presets available**

Scan type: COLORMIX 250AT Mode1 17

Short name: CM 250

No movement - Brightness Master on Dimmer

DMX channel order

1: Special	2: Color 1	3: Cyan
4: Magenta	5: Yellow	6: Speed 1
7: Color 2	8: Frost	9: (not used)
10: Shutter	11: Dimmer	

**Presets available**

Scan type: COLORMIX 240AT Mode1 18

Short name: CM 240

No movement - Brightness Master on Dimmer

DMX channel order

1: Special	2: (not used)	3: Cyan
4: Magenta	5: Yellow	6: Speed 1
7: Color 2	8: (not used)	9: (not used)
10: Shutter	11: Dimmer	

**Presets available**

Scan type: COLORMIX 150AT PROFILE 19

Short name: CM150P

No movement - Brightness Master on Shutter

DMX channel order

1: Color 1	2: Gobo 1	3: Rotation 1
4: Shutter		

**Presets available**

Scan type: COLORMIX 150AT WASH 20

Short name: CM150W

No movement - Brightness Master on Dimmer

DMX channel order

1: Color 1	2: Dimmer	3: Shutter
------------	-----------	------------

**Presets available**

Scan type: BEAM 250 XT 21

Short name: BEA250

No movement - Brightness Master on Dimmer

DMX channel order

1: Color 1	2: Gobo 1	3: Shutter
4: Dimmer		

**Presets available**

**Manufacturer SAGITTER**

Scan type: PRINCE

Short name: PRINCE

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Pan	2: Tilt	3: Color 1
4: Gobo 1	5: Shutter	6: Special

**Presets available**

Scan type: SUPER PRINCE TEMPLATE

Short name: PRINCT

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Color 1	2: Gobo 1	3: Rotation 1
4: Prisma	5: Iris	6: Dimmer
7: Shutter	8: Special	9: Pan
10: Tilt		

**Presets available**

Scan type: INFINITY 12 CH.

Short name: INFINI

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Color 1	2: Gobo 1	3: Gobo 2
4: Rotation 1	5: Iris	6: Focus
7: Shutter	8: Control=Special	9: Pan coarse
10: Tilt coarse	11: Pan fine	12: Tilt fine

**Presets available**

Scan type: INFINITY ZOOM 14 CH.

Short name: INFINI

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

# Scancommander

1: Color 1      2: Gobo 1      3: Gobo 2  
4: Rotation 1    5: Frost        6: Iris  
7: Zoom         8: Dimmerl     9: Shutter  
10: Special      11: Pan coarse   12: Tilt coarse  
13: Pan fine     14: Tilt fine

## Presets available

Scan type: INFINITY CLUB 1200

Short name: INFI C

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Color1      2: Gobo1      3: Rotation1(gobo)  
4: Prism       5: Rotation3(prism)   6: Dimmer  
7: Shutter     8: Special     9: Pan  
10: Tilt        11: Pan fine    12: Tilt fine

Scan type: INFINITY LIVE 20 CH.

Short name: INFINI

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Dimmer      2: Shutter     3: Iris  
4: Zoom        5: Focus       6: Gobo 2  
7: Gobo 1      8: Rotation 1   9: Prism  
10: Prism Rot.l   11: Frost      12: Color 1  
13: Cyan       14: Yellow     15: Magenta  
16: Special    17: Pan coarse   18: Tilt coarse  
19: Pan fine   20: Tilt fine

## Presets available

Scan type: TRACER

Short name: TRACER

No movement - Brightness Master on Shutter (Dimmer)

DMX channel order

1: Color 1      2: Color 2      3: Iris  
4: Shutter/Dimmer 5: Focus

## Presets available

Scan type: MASK COLOR ZOOM

Short name: MASK C

No Movement - Brightness Master on Dimmer

DMX channel order

1: Cyan        2: Yellow      3: Magenta  
4: Frost       5: Iris        6: Zoom  
7: Focus       8: Special     9: Shutter  
10: Dimmer

Scan type: PRINCE Dimmer Invers

Short name: PRINCE

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan         2: Tilt        3: Color 1  
4: Gobo 1      5: Shutter    6: Dimmer

For PRINCE SCAN LIGHT set Dimmer 0

Scan type: PRINCE Dimmer v1

Short name: PRINCE1

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan         2: Tilt        3: Color 1  
4: Gobo 1      5: Shutter    6: Dimmer

## Presets available

Scan type: MOVING SPOT 250

Short name: MS-250

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan         2: Tilt        3: Pan fine  
4: Tilt fine    5: Speed 1     6: Special  
7: Color 1     8: (no used)   9: Prisma  
10: Pr.-Rotation   11: Gobo 1    12: Rotation 1  
13: (no used)   14: Focus     15: Shutter  
16: Dimmer

Scan type: MOVING WASH 250

Short name: MH 640

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan         2: Tilt        3: Pan fine  
4: Tilt fine    5: Speed 1     6: Special  
7: Color 1     8: Cyan        9: Magenta  
10: Yellow     11: Speed 2    12: Color 2  
13: Prisma     14: (no used)   15: Shutter  
16: Dimmer

Scan type: MOVING SPOT 575

Short name: MS-575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan         2: Tilt        3: Pan fine  
4: Tilt fine    5: Speed 1     6: Special  
7: Color 1     8: Color 2     9: Prisma  
10: Gobo 1     11: Rotation 1   12: Rotation 2  
13: Iris        14: Focus      15: Shutter  
16: Dimmer

Scan type: MOVING WASH 575

Short name: MW-575

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan         2: Tilt        3: Pan fine  
4: Tilt fine    5: Speed 1     6: Special  
7: Color 1     8: Cyan        9: Magenta  
10: Yellow     11: Speed 2    12: Color 2  
13: Prisma     14: Focus      15: Shutter  
16: Dimmer

## Manufacturer SGM

Scan type: GALILEO 1

Short name: GALILE

Movement: Mirror - Brightness Master on Iris

DMX channel order

1: Iris         2: Color 1      3: Gobo 1  
4: Shutter     5: Pan         6: Tilt

## Presets available

Scan type: GALILEO II H.R.

Short name: GAL 2H

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Iris         2: Color 1      3: Gobo 1  
4: Shutter     5: Pan coarse   6: Tilt coarse  
7: Rotation 1   8: Dimmer       9: Prism  
10: Special     11: Pan fine    12: Tilt fine

## Presets available

Scan type: GALILEO III High Res.

Short name: GAL 3

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Iris         2: Color 1      3: Gobo 1  
4: Shutter     5: Pan coarse   6: Tilt coarse  
7: Rotation 1   8: Dimmer       9: Prism  
10: Speed 1     11: Pr.-Rotation   12: Reset=Special  
13: Pan fine    14: Tilt fine

## Presets available

Scan type: GALILEO IV

Short name: GAL 4

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Iris         2: Color 1      3: Gobo 1  
4: Shutter     5: Pan coarse   6: Tilt coarse  
7: Rotation 1   8: Dimmer       9: Prism  
10: Speed 1     11: Pr.-Rotation   12: Rotation 2  
13: Rot. Pr2=Speed 2   14: Color 2

**Presets available**

Scan type: GIOTTO

Short name: GIOTTO

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Color 1	6: Cyan
7: Magenta	8: Yellow	9: Dimmer
10: Shutter	11: Zoom	12: Speed 1
13: Special		

Scan type: VICTORY 1

Short name: VIC 1

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Color 1	3: Gobo 1
4: Shutter	5: Pan coarse	6: Tilt coarse
7: Special	8: Pan fine	9: Tilt fine

**Presets available**

Scan type: VICTORY 2

Short name: VIC 2

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Color 1	3: Gobo 1
4: Shutter	5: Pan coarse	6: Tilt coarse
7: Rotation 1	8: Color 2	9: Prism
10: Special	11: Pan fine	12: Tilt fine

**Presets available**

Scan type: GIOTTO SPOT 250/400

Short name: GI SP1

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Iris	6: Color 1
7: Gobo 1	8: Shutter	9: Dimmer
10: Rotation 1	11: Prisma	12: Pr.-Rotation
13: Focus	14: Zoom	15: Gobo 2
16: Frost	17: Speed 1	18: Special
19: Cyan = Goboshake		20: Color 2
21: Rotation 2 = Gobo Mode <> Macro		22: Speed 2 =

**Presets available**

Scan type: GIOTTO WASH 1200

Short name: GI WAS

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Color 1	6: Cyan
7: Magenta	8: Yellow	9: Dimmer
10: Shutter	11: Zoom	12: Speed 1
13: Special		

**Presets available**

Scan type: GIOTTO SPOT 1200

Short name: GI SPO

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Iris	6: Color 1
7: Gobo 1	8: Shutter	9: Dimmer
10: Rotation 1	11: Prisma	12: Pr.-Rotation
13: Focus	14: Zoom	15: Color 2
16: Frost	17: Speed 1	18: Special

**Presets available**

Scan type: GIOTTO 1200 DORS

Short name: GI DOR

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Color 1	6: Cyan
7: Magenta	8: Yellow	9: Dimmer
10: Shutter	11: Zoom	12: Speed 1
13: Special		
14: Gobo 1 = Blade1A	15: Gobo 2 = Blade2A	
16: Rotation 1 = Blade3A	17: Rotation 2 = Blade4A	
18: Ro.-Prisma = Blades<>		

**Presets available**

**Manufacturer SHOWPRO**

Scan type: CYBERSCAN 13 Ch.

Short name: CYBERS

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Shutter	3: Color 1
4: Gobo 1	5: Rotation 1	6: Iris
7: Reset=Special	8: Focus	9: Pan coarse
10: Pan fine	11: Tilt coarse	12: Tilt fine
13: Speed 1		

**Presets available**

Scan type: CYBERSCAN 10 Ch.

Short name: CYBERS

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Shutter	3: Color 1
4: Gobo 1	5: Rotation 1	6: Iris
7: Focus	8: Pan	9: Tilt
10: Speed 1		

**Presets available**

Scan type: ACCUBEAM AB-400

Short name: AB-400

Movement: Mirror - no Brightness Master

DMX channel order

1: Pan	2: Tilt	3: Gobo 1
4: Color 1		

**Presets available**

Scan type: ACCUCOLOR AB-60

Short name: AB-60

Movement: No movement - no Brightness Master

DMX channel order

1: Gobo 1	2: Color 1
-----------	------------

**Presets available**

Scan type: ACCUCOLOR AB-20

Short name: AB-20

Movement: Mirror - no Brightness Master

DMX channel order

1: Speed 1	2: Gobo 1	3: Color 1
------------	-----------	------------

**Presets available**

**Manufacturer SLS**

Scan type: PANSCAN 3 JUNIOR

Short name: PAN 3J

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Pan	2: Tilt	3: Color
4: Gobo	5: Shutter	

Scan type: PANSCAN 4

Short name: PANSC4

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan coarse	2: Pan fine	3: Tilt coarse
---------------	-------------	----------------

# Scancommander

4: Tilt fine      5: Color 1      6: Color 2  
7: Gobo 1        8: Gobo 2        9: Rotation 1  
10: Prism        11: Pr.-Rotation 12: Iris  
13: Focus        14: Shutter      15: Dimmer

## Manufacturer SPACE CANNON

Scan type: BLACK DEVIL 6/1996

Short name: DEVIL

Movement: Head - No Brightness Master

DMX channel order

1: Pan            2: Tilt            3: Color  
4: Zoom          5: Lamp on=Speed 2  
6: L.off=Special 7: Shutter=not used 8: Prism=not used

For SPACE CANNON "TARGET" load "BLACK DEVIL"  
Tilt = Rot. Speed

## Manufacturer STARLITE

Scan type: STARLITE MK2G H.Res

Short name: MK2G

Movement: Head - Brightness Master on Shutter

DMX channel order

1: Iris            2: Color           3: Gobo  
4: Shutter        5: Pan coarse      6: Pan fine  
7: Tilt coarse    8: Tilt fine        9: Focus

### Presets available

Scan type: STARLITE MK5 H.RES

Short name: MK5

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan            2: Pan fine        3: Tilt  
4: Tilt fine      5: Color 1        6: Cyan  
7: Magenta      8: Yellow         9: Rotation 1  
10: Gobo 1       11: Rotation 2    12: Gobo 2  
13: Focus        14: Iris           15: Prisma  
16: Frost        17: Shutter      18: Dimmer  
19: Speed 1

## Manufacturer STRONG

Scan type: MINSCAN ROTAX

Short name: ROTAX

Movement: Mirror - Brightness Master on Shutter

DMX channel order

1: Color 1       2: Gobo 1        3: Rotation 1  
4: Shutter       5: Pan            6: Tilt

Scan type: BIG SCAN

Short name: BIG 3

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Iris            2: Colour 1       3: Color 2  
4: Shutter       5: Pan            6: Tilt  
7: Special       8: Prisma        9: Focus  
10: Gobo 2       11: Gobo 1       12: Rotation 1

## Manufacturer STUDIO DUE

Scan type: VARYBEAM

Short name: VARY B

Movement: Head - Brightness Master on Shutter

DMX channel order

1: Pan            2: Tilt            3: Color 1  
4: Gobo 1        5: Shutter        6: Speed 1  
7: Gobo 2

Scan type: CITYCOLOR

Short name: CITY

No Movement - Brightness Master on Dimmer

DMX channel order

1: Speed 1       2: Cyan           3: Yellow

4: Magenta      5: Dimmer        6: Color 1  
7: Special

Scan type: LIVE PRO 1200 CMY

Short name: LIVE C

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Iris            2: Colour 1       3: Gobo 1  
4: Shutter       5: Pan            6: Pan fine  
7: Tilt            8: Tilt fine       9: Dimmer  
10: Speed 1      11: Focus         12: Colour 2  
13: Gobo 2       14: Rotation 2    15: Magenta  
16: Cyan          17: Yellow        18: Frost  
19: Prisma        20: Special

Scan type: LIVE PRO 1200 PRIM

Short name: LIVE P

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Iris            2: Colour 1       3: Gobo 1  
4: Shutter       5: Pan            6: Pan fine  
7: Tilt            8: Tilt fine       9: Dimmer  
10: Speed 1      11: Focus         12: Colour 2  
13: Gobo 2       14: Rotation 2    15: Prisma  
16: Special

Scan type: LIVE PRO 1200 FROST

Short name: LIVE F

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Iris            2: Colour 1       3: Gobo 1  
4: Shutter       5: Pan            6: Pan fine  
7: Tilt            8: Tilt fine       9: Dimmer  
10: Speed 1      11: Focus         12: Colour 2  
13: Gobo 2       14: Rotation 2    15: Focus  
16: Special

Scan type: STRATOS HR RESET

Short name: STRA H

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Iris            2: Colour 1       3: Gobo 1  
4: Shutter       5: Pan            6: Pan fine  
7: Tilt            8: Tilt fine       9: Dimmer  
10: Speed 1      11: Focus         12: Colour 2  
13: Gobo 2       14: Rotation 1    15: Special = Reset

### Presets available

Scan type: STRATOS CMY HR ROGO

Short name: STRA R

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Frost           2: Colour 1       3: Gobo 1  
4: Shutter       5: Pan            6: Pan fine  
7: Tilt            8: Tilt fine       9: Dimmer  
10: (M-)Speed 1 11: Magenta       12: Cyan  
13: Yellow        14: (D-)Speed 2 15: Reset=ISpecial

Scan type: STRATOS RGB HR IRIS

Short name: STRA I

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Frost           2: Colour 1       3: Iris  
4: Shutter       5: Pan            6: Pan fine  
7: Tilt            8: Tilt fine       9: Dimmer  
10: (M-)Speed 1 11: Magenta       12: Cyan  
13: Yellow        14: (D-)Speed 2 15: Reset=Special

Scan type: MINIBEAM

Short name: MINI B

Movement: Head - Brightness Master on Shutter

DMX channel order

1: Speed 1       2: Colour 1       3: Gobo 1  
4: Shutter       5: Pan            6: Tilt

### Presets available

Scan type: GIANT HR

Short name: GIANT

Movement: Head - Brightness Master on Shutter

DMX channel order

1: Speed1	2: Colour 1	3: Gobo 1
4: Shutter	5: Pan	6: Pan fine
7: Tilt	8: Tilt fine	9: Special

**Presets available**

Scan type: LIGHT DEFLECTOR HR

Short name: L-REFL

Movement: Head - No Brightness Master

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Rotation	6: Speed 1
7: Special		

Scan type: PREDATOR

Short name: PREDAT

Movement: Head - No Brightness Master

DMX channel order

1: Speed 1	2: Color 1	3: Gobo 1
4: Shutter	5: Pan	6: Tilt

Scan type: CARIOCA

Short name: CARIOC

Movement: Mirror 1 way only - Brightness Master on Shutter

DMX channel order

1: Iris	2: Pan	3: Shutter
4: Color 1	5: Tilt=not used	

**Presets available**

Scan type: STRATOS HR Dim neg.

Short name: STRA H

Movement: Head - Brightness Master on Dimmer **invers**

DMX channel order

1: Iris	2: Colour 1	3: Gobo 1
4: Shutter	5: Pan coarse	6: Pan fine
7: Tilt coarse	8: Tilt fine	9: Dimmer
10: Speed 1	11: Focus	12: Colour 2
13: Gobo 2	14: Rotation 1	

**Presets available**

Scan type: STRATOS LR Dim neg.

Short name: STRA L

Movement: Head - Brightness Master on Dimmer **invers**

DMX channel order

1: Iris	2: Colour 1	3: Gobo 1
4: Shutter	5: Pan	6: Tilt
7: Dimmer	8: Speed 1	9: Focus
10: Colour 2	11: Gobo 2	12: Rotation 1

**Test: 1/94, Presets available**

## Manufacturer SUMMA

Scan type: SUMMA HTI

Short name: SUMMA

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Color 1	2: Color 2	3: Pan
4: Tilt	5: Speed 1	6: Gobo 1
7: Zoom	8: Focus	9: Dimmer

## Manufacturer TAS

Scan type: CRONO

Short name: CRONO

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Tilt	3: Dimmer
4: Shutter	5: Iris	6: Gobo1
7: Rotation1	8: Color1	9: Special

Scan type: CF6

Short name: CF6

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Shutter
7: Focus	8: Iris	9: Cyan
10: Magenta	11: Yellow	12: Special

## Manufacturer THEATRE PROJECTS

Scan type: SKYART DMX

Short name: SKYART

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan coarse	2: Pan fine	3: Tilt coarse
4: Tilt fine	5: Dimmer	6: Focus
7: Colour		

Scan type: PAL (PPTTFC)

Protocol: DMX 512

Short name: TP.PAL

Movement: Head - No Brightness Master

DMX channel order

1: Pan coarse	2: Pan fine	3: Tilt coarse
4: Tilt fine	5: Focus	6: Colour

## Manufacturer VARI\*LITE

Scan type: VL1

Short name: VL1

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Tilt
4: Color 1	5: Color 2	6: Iris

Scan type: VLM MIRROR MODE 3

Short name: VLM M3

Movement: Head - No Brightness Master

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1	6: Speed 2
7: (no used)	8: (no used)	9: (no used)
10: Rotation 2		

Scan type: VLM MIRROR MODE 4 EX

Short name: VLM M4

Movement: Head - No Brightness Master

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Speed 1	6: Speed 2
7: (no used)	8: (no used)	9: (no used)
10: Rotation 1	11: (no used)	12: (no used)
13: Rotation 2		

Scan type: VL5 Mode 3 16bit

Short name: VL5 M3

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Fixed=0	2: Pan coarse	3: Pan fine
4: Tilt coarse	5: Tilt fine	6: Cyan
7: Yellow	8: Magenta	9: Frost
10: Rot.2=Reset	xx: Dimmer	

**Presets available. Free patch for Dimmer**

Scan type: VL5 Mode 4 16bit Ext.

Short name: VL5 M4

# Scancommander

Movement: Head - Brightness Master on Dimmer  
DMX channel order  
1: Fixed=0 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Cyan  
7: Yellow 8: Magenta 9: Frost  
10: Speed1(Focus) 11: Speed2(Color) 12: Speed3(beam)  
13: Rot.2=Reset xx: Dimmer

**Presets available. Free patch for Dimmer**

Scan type: VL5 ARC Mode 3 16BIT

Short name: VL5A 3

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Cyan  
7: Yellow 8: Magenta 9: Frost  
10: Rot.2=Reset

**Presets available.**

Scan type: VL5 ARC Mode 4 16BIT Ext

Short name: VL5 A 4

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Cyan  
7: Yellow 8: Magenta 9: Frost  
10: Speed1(Focus) 11: Speed2(Color) 12: Speed3(beam)  
13: Rot.2=Reset

**Presets available.**

Scan type: VL6 Mode 3 16BIT

Short name: VL6 M3

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Gobo  
7: Color 8: Iris 9: Focus  
10: Rot.2=Reset

**Presets available**

Scan type: VL6 Mode 4 16BIT Ext.

Short name: VL6 M4

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Gobo  
7: Color 8: Iris 9: Focus  
10: Speed1(Focus) 11: Speed2(Color) 12: Speed3(beam)  
13: Rot.2=Reset

**Presets available**

Scan type: VL6 Mode 5 16BIT

Short name: VL6 M5

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Gobo 1  
7: Color 1 8: Iris 9: Focus  
10: Shutter 11: Rotation 2

**Presets available**

Scan type: VL6 Mode 6 16Bit Ext.

Short name: VL6 M6

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Gobo 1  
7: Color 1 8: Iris 9: Focus  
10: Shutter 11: Speed1(Focus) 12: Speed2(Color)  
13: Speed3(beam) 14: Rotation 2 = Reset

**Presets available**

Scan type: VL6B Mode 5 16BIT

Short name: VL6BM5

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Gobo 2  
7: Color 1 8: Iris 9: Focus  
10: Shutter 11: Zoom 12: Gobo 1  
13: Rotaton 1 14: Rotation 2

**Presets available**

Scan type: VL6B Mode 6 16Bit Ext.

Short name: VL6BM6

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Gobo 2  
7: Color 1 8: Iris 9: Focus  
10: Shutter 11: Zoom 12: Gobo 1  
13: Rotaton 1 14: Speed 1(Focus) 15: Speed 2(Color)  
16: Speed 3 (beam) 17: Rotation 2 = Reset

**Presets available**

Scan type: VL7 Mode 7 16BIT

Short name: VL7 M7

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Cyan  
7: Magenta 8: Yellow 9: Color 1  
10: Iris 11: Focus (Lens) 12: Zoom  
13: Shutter 14: Gobo 2 15: Gobo 1  
16: Go Rot 1 17: Go Rot 2

Scan type: VL7 Mode 8 16BIT Ext.

Short name: VL7 M8

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Cyan  
7: Magenta 8: Yellow 9: Color 1  
10: Iris 11: Focus (Lens) 12: Zoom  
13: Shutter 14: Gobo 2 15: Gobo 1  
16: Go Rot 1 17: Speed 1 18: Speed 2  
19: Special 20: Go Rot 2

Scan type: VL7B M9-ADD EXTRAT

Short name: VL7BM9

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan coarse 3: Pan fine  
4: Tilt coarse 5: Tilt fine 6: Cyan  
7: Magenta 8: Yellow 9: Color 1  
10: Focus 11: Zoom 12: Shutter  
13: Gobo 1 14: Rotation 1 15: Speed 1  
16: Speed 2 17: Special

Scan type: VL220X 16BIT STD.

Short name: VL220X

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan 3: Pan fine  
4: Tilt 5: Tilt fine 6: Gobo 2  
7: Color 1 8: Iris 9: Focus  
10: Shutter 11: Zoom 12: Gobo 1  
13: Rotation 1 14: Special = Control

Scan type: VL220X 16BIT ENHC

Short name: VL220E

Movement: Head - Brightness Master on Dimmer

DMX channel order  
1: Dimmer 2: Pan 3: Pan fine  
4: Tilt 5: Tilt fine 6: Gobo 2  
7: Color 1 8: Iris 9: Focus  
10: Shutter 11: Zoom 12: Gobo 1  
13: Rotation 1  
14: Speed 1 = Movement Timing  
15: Color 2 = Color Timing  
16: Speed 2 = Beam Timing  
17: Special = Control

Scan type: VL2401 16BIT STD.

Short name: VL2401

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Cyan
7: Yellow	8: Magenta	9: Frost
10: Shutter	11: Zoom	12: Special = Control

Scan type: VL2402 16BIT STD.

Short name: VL2402

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Cyan
7: Yellow	8: Magenta	9: Color 1
10: Frost	11: Shutter	12: Special = Control

Scan type: VL2401 16BIT ENHC

Short name: V2401E

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Cyan
7: Yellow	8: Magenta	9: Frost
10: Shutter	11: Zoom	
12: Speed 1 = Movement Timing		
13: Color 2 = Color Timing		
14: Speed 2 = Beam Timing		
15: Special = Control		

Scan type: VL2402 16BIT ENHC

Short name: V2402E

Movement: Head - Brightness Master on Dimmer

DMX channel order

1:

Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Cyan
7: Yellow	8: Magenta	9: Color 1
10: Frost	11: Shutter	
12: Speed 1 = Movement Timing		
13: Color 2 = Color Timing		
14: Speed 2 = Beam Timing		
15: Special = Control		

Scan type: VL2416 16BIT STD.

Short name: VL2416

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Cyan
7: Yellow	8: Magenta	9: Focus = Beam
10: Shutter	11: Rotation 1(Lens)	
12: Special = Control		

Scan type: VL2416 16BIT ENHC

24

Short name: V2416E

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Cyan
7: Yellow	8: Magenta	9: Focus = Beam
10: Shutter	11: Rotation 1(Lens)	
12: Speed 1 = Movement Timing		
13: Color 1 = Color Timing		
14: Speed 2 = Beam Timing		
15: Special = Control		

Scan type: VL1000 A 16BIT ENHC

25

Short name: V1000A

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Focus
7: Zoom	8: Frost	9: Cyan
10: Magenta	11: Yellow	12: Gobo 1
13: Rotation 1	14: Rotation 2	15: (not used)
16: Speed1	17: Color 1	18: Speed 2
19: Special		

Scan type: VL1000 AI 16BIT ENHC

26

Short name: V100AI

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Focus
7: Zoom	8: Frost	9: Cyan
10: Magenta	11: Yellow	12: Gobo 1
13: Rotation 1	14: Rotation 2	15: Iris
16: Speed1	17: Color 1	18: Speed 2
19: Special		

Scan type: VL2500WASH

27

Short name: V2500W

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2:Pan coarse
3: Pan fine	4:Tilt coarse
5: Tilt fine	6:CYAN
7: YELLOW	8:MAGENTA
9. COLOUR1	10:FROST;Beam Diffuser
11: SHUTTER;Strobe	12: SPEED1;Focus Time
13: GO-ROT1;Color Time	14: SPEED2;Beam Time
15: SPECIAL;Control	

**Presets not available**

Scan type: VL2500SPOT

28

Short name: V2500S

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2:Pan coarse
3: Pan fine	4:Tilt coarse
5: Tilt fine	6:CYAN
7: YELLOW	8:MAGENTA
9. COLOUR1;color wheel	10:FROST;Edge
11: SHUTTER;Strobe	12: ZOOM
13: GOBO1;fixed gobo wheel	
14: GO-ROT1;rotating gobo wheel	
15: GO-ROT2;index high byte	
16: GO-ROT3;index low byte	
17: IRIS	18: SPEED1;Focus Time
19: COLOUR2;Color Time	
20: SPEED2;Beam Time	
21: GOBO2;Gobo Time	22: SPECIAL

**Presets not available**

Scan type: VL3000 WASH 16BIT ENHC

29

Short name: V3000W

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Dimmer	2: Pan	3: Pan fine
4: Tilt	5: Tilt fine	6: Focus
7: Color 2	8: Cyan	9: Magenta
10: Yellow	11: Color 1	12: Shutter
13: Speed1	14: Rotation 1	15: Speed 2
16: Special		

Scan type: VL500WASH 16BIT EXT

30

Short name: VL500W

Movement: Head - Brightness Master on Dimmer

DMX channel order



## Scancommander

---

1: Dimmer                    2: Pan coarse  
3: Pan fine                 4: Tilt coarse  
5: Tilt fine                 6: CYAN  
7: YELLOW                 8: MAGENTA  
9: FROST; diffuser / tungsten units only  
10: SPEED1; Focus Timing  
11: GO-ROT1; Color Timing  
12: SPEED2; Intensity Timing  
13: SPECIAL; Control

**Presets not available**

---

### Manufacturer X & Y

Scan type: YOKY XL

Short name: YOKEXL

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Focus
7: Color 1		

---

Scan type: MN 400 WASH

Short name: MN400W

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Focus
7: Cyan	8: Magenta	9: Yellow
10: Frost	11: Speed 2	12: Special

---

Scan type: MN 400 SPOT

Short name: MN400S

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Iris
7: Cyan	8: Magenta	9: Yellow
10: Gobo 1	11: Focus	12: Speed 2
13: Special		

---

Scan type: MN 600 WASH

Short name: MN600WS

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Iris
7: Cyan	8: Magenta	9: Yellow
10: Gobo 1	11: Focus	12: Shutter
13: Speed 2	14: Special	

---

Scan type: MN 600 SPOT

Short name: MN600S

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Iris
7: Cyan	8: Magenta	9: Yellow
10: Gobo 1	11: Focus	12: Shutter
13: Speed 2	14: Special	

---

Scan type: BIM 1200

Short name: BIM120

Movement: Head - Brightness Master on Dimmer

DMX channel order

1: Pan	2: Pan fine	3: Tilt
4: Tilt fine	5: Dimmer	6: Focus
7: Color 1	8: (no used)	9: (no used)
10: (no used)	11: (no used)	12: (no used)
13: (no used)	14: Special	

---

### Standard COLOR CHANGER

Scan type: COL + EXTRA DIMMER      Short name: COL + D

No Movement: - Brightness Master on Dimmer

1: Color 1                    EXTRA = Dimmer

---

Scan type: RGB + EXTRA DIMMER      Short name: RGB + D

No Movement: - Brightness Master on Dimmer

1: Cyan                      2: Magenta                 3: Yellow  
EXTRA = Dimmer

---

Scan type: RAINBOW+EXT.DIMMER      Short name: CSFX + D

No Movement: - Brightness Master on Dimmer

1: Color 1                    2: Speed 1                 3: Speed 2  
4: Speciale                    EXTRA = Dimmer

---

Scan type: C1/C2/D/G                    Short name: STA C1

No Movement: - Brightness Master on Dimmer

1: Color 1                    2: Color 2                 3: Dimmer  
4: Gobo 1

---

Scan type: C1/D/G                         Short name: STA C2

No Movement: - Brightness Master on Dimmer

1: Color 1                    2: Dimmer                 3: Gobo 1

---

Scan type: R/G/B/D                         Short name: STA C3

No Movement: - Brightness Master on Dimmer

1: Cyan                      2: Magenta                 3: Yellow  
4: Dimmer

---

Scan type: Single Colour                 Short name: Colour

No Movement: - No Brightness Master

1: Colour 1

---

### DIMMER

Scan type: SINGLE DIMMER

Short name: DIMMER

No Movement - Brightness Master on Dimmer

DMX channel order

1: Dimmer

---

### MA TEST

Scan type: TEST 1    24 Channels

Short name: TEST 1

Movement: Mirror - Brightness Master on Dimmer

DMX channel order

1: Gobo 1	2: Gobo 2	3: Color 1
4: Color 2	5: Dimmer	6: Red
7: Green	8: Blue	9: Prisma
10: Iris	11: Focus	12: Frost
13: Zoom	14: Shutter	15: Speed 1
16: Speed 2	17: Special	18: Rotation 1
19: Rotation 2	20: Pr.-Rotation	21: Pan coarse
22: Pan fine	23: Tilt coarse	24: Tilt fine

---

## Controlling TRACKSPOT via the MA-Scancommander (Vers.4.31)

### 1. Changing from Light Wave Research protocol to DMX 512

DMX input to all the lamps is via a 3pin XLR connector, where pin 1 to 3 correspond to pin 1 to 3 of the 5 pin XLR connector of standard DMX 512. Pin 4 and 5 of the DMX connector are not used.

Attention: the pin order at the 3 pin connector is 1-3-2, whereas the 5 pin connector shows 1-2-3-4-5.

### 2. Personality setting for high resolution DMX

As the Scancommander enables you to set very exact DMX values, it is recommended to set the Trackspot to High Resolution mode.

	Personality Switch Setting								Scancommander Lamptype
	1	2	3	4	5	6	7	8	
Trackspot (DMX 1-256)	-	-	ON	OFF	ON	-	-	-	TRACKSPOT
Trackspot (DMX 257-512)	-	-	ON	ON	OFF	-	-	-	"

### 3. DMX address

The DMX address of each scan has to be set

- via the address switches at the backpanel of the lamp and
- at the Scancommanders DMX patch menu.

Unlike setting the address for the Lightwave Research Controller, the address at the lamp has to be decoded binary.

That means,

- switch number 1 has the value 1
- switch number 2 has the value 2
- switch number 3 has the value 4
- switch number 4 has the value 8
- switch number 5 has the value 16
- switch number 6 has the value 32
- switch number 7 has the value 64
- switch number 8 has the value 128

Choose any DMX number and patch the scan to this address at the Scancommanders DMX patch menu.

Subtract 1 from this number and set to "ON" as many switches as necessary to get this number as the total of the values.

I.E.: Scan patched to DMX channel 75 in the Scancommander patch menu.

Subtract 1 = 74

Switch 7 ON = 64

Switch 4 ON = 8

Switch 2 ON = 2 , all other address switches OFF

To address channels 257 to 512 set personality switch 4=on,5=off, subtract 256 and go on like above.

### 4.Preset values for colors, gobos and shutter

Initializing the Trackspot in the Scancommanders Setup menu by "INIT:SCANS+NAMES+VALUES" will load the names and values of all colors and gobos.

The motor speed, channel 7 of the Trackspot DMX protocol, is controlled via the SPEED button at the Scancommander. Using the Scancommander it is recommended to keep this value at "00", as fades can be controlled via the Scancommanders fade features.

## Controlling INTELLABEAM via the MA-Scancommander (Vers. 4.31)

### 1. Changing from Light Wave Research protocol to DMX 512

DMX input to all the lamps is via a 3pin XLR connector, where pin 1 to 3 correspond to pin 1 to 3 of the 5 pin XLR connector of standard DMX 512. Pin 4 and 5 of the DMX connector are not used.

Attention: the pin order at the 3 pin connector is 1-3-2, whereas the 5 pin connector shows 1-2-3-4-5.

(Some of the older Intellabeam 400 don't accept DMX 512, even when it is printed on the backpanel. For this lamps please ask for a lamp update eeprom at your High End dealer.)

### 2. Personality setting for high resolution or extended DMX

As the Scancommander enables you to set very exact DMX values, it is recommended to set Intellabeams to High Resolution on the 7 channel mode, or you may use the 13 channel mode of "Extended DMX".

This gives you:

- better resolution on Pan / Tilt
- direct access to the Gobo and Color spin functions
- access to the homing (via SPECIAL in the SPEED menu) and speed function (via SPEED 1).

To run the Intellabeam 700 in the 13 channel mode, this lamps need to have the actual software version ML25F Ver.3.04 (already installed in most Intellabeams 700 delivered since beginning 93).

	1	2	Personality Switch Setting						8	Scancommander Lamptype
Intellabeam(DMX 1-256)	-	ON	OFF	ON	OFF	-	OFF	INTELLABEAM 7 CHAN		
Intellabeam(DMX 257-512)	-	-	OFF	ON	ON	OFF	-	OFF	"	
Intellabeam(DMX 1-256)	-	ON	OFF	OFF	ON	-	ON	INTELLABEAM 13 CHAN		
Intellabeam(DMX 257-512)	-	-	OFF	ON	OFF	ON	-	ON	"	

### 3. DMX address

The DMX address of each scan has to be set

- via the address switches at the backpanel of the lamp and
- at the Scancommanders DMX patch menu.

Unlike setting the address for the Lightwave Research Controller, the address at the lamp has to be decoded binary.

That means,

- switch number 1 has the value 1
- switch number 2 has the value 2
- switch number 3 has the value 4
- switch number 4 has the value 8
- switch number 5 has the value 16
- switch number 6 has the value 32
- switch number 7 has the value 64
- switch number 8 has the value 128

Choose any DMX number and patch the scan to this address at the Scancommanders DMX patch menu.

Substract 1 from this number and set to "ON" as many switches as necessary to get this number as the total of the values.

I.E.: Scan patched to DMX channel 75 in the Scancommander patch menu.

Substract 1 = 74

Switch 7 ON = 64

Switch 4 ON = 8

Switch 2 ON = 2 , all other address switches OFF

To address channels 257 to 512 set personality switch 3=off,4=on, substract 256 and go on like above.

#### 4. Preset values for colors, gobos and shutter

Initializing the Intellabeam in the Scancommanders Setup menu by "INIT:SCANS+NAMES+VALUES" will load the names and values of all colors, gobos and some dimmer and shutter settings.

Using the Extended DMX mode, the motor speed, channel 12 of the Intellabeam DMX protocol, is controlled via the FOCUS-ZOOM button at the Scancommander. Using the Scancommander it is recommended to keep this value at "00", as fades can be controlled via the Scancommanders fade features.

#### 5. Slow color or gobo changes on the 13 channel mode

To get slow changes of colors or gobos

- set WHEEL 2 of color or gobo to a value about 20 (little before the gobo or color scan function starts)
- set the speed via SPEED 1 to any value above "10"
- recall colors or gobos at the Scancommander without fade, resp. store the memory with color and gobo set to "TRIG" instead of "FADE" (=remove ramp on the store matrix)

This procedure will give the slow changes on color or gobo, but will also influence the movement speed.

#### 6. Homing function

When using the Extended DMX mode, the homing function can be addressed via the SPECIAL function in the SPEED menu of the Scancommander.

Homing the lamp is done by setting the SPECIAL channel to 50% for at least 3 seconds.

- Press SPECIAL at the feature selection area.
- Select one or more scans via the SCAN SELECTION buttons
- Set the values to "00" via the Encoder wheel
- Set the values to "50" via the Encoder wheel.

(If the display is set to hexadecimal showing...,09,0A,0B...,the 50% value corresponds to 7F)

After 3 seconds the scans should start their homing procedure.

## Controlling CYBERLIGHT via the MA-Scancommander (Vers. 4.31)

### 1. Changing from Light Wave Research protocol to DMX 512

DMX input is via a 3pin XLR connector, where pin 1 to 3 correspond to pin 1 to 3 of the 5 pin XLR connector of standard DMX 512. Pin 4 and 5 of the DMX connector are not used.

Attention: the pin order at the 3 pin connector is 1-3-2, whereas the 5 pin connector shows 1-2-3-4-5.

All personality switches stay 0, just setting address switch 8 to on will change to DMX.

### 2. DMX address

Unlike Trackspot or Intellabeam, the Cyberlight DMX address is set like on Lightwave Research protocol, switch 8 always has to be on for DMX 512.

Switch 1 to 8 =	0	0	0	0	0	0	0	1	=lamp 1	DMX address 1
	1	0	0	0	0	0	0	1	=lamp 2	DMX address 21
	0	1	0	0	0	0	0	1	=lamp 3	DMX address 41
	1	1	0	0	0	0	0	1	=lamp 4	DMX address 61
	0	0	1	0	0	0	0	1	=lamp 5	DMX address 81 ....

### 3. Accessing the Control Channel

The Control function can be addressed via the SPECIAL function in the SPEED menu of the Scancommander.

- Select one or more scans via the SCAN SELECTION buttons

Controlling the lamp is done in three steps:

- Step 1: Dimmer channel at full (FF)  
Special channel at full (FF)
  - Step 2: Dimmer channel at Zero (00)  
Special channel at full (FF)
  - Step 3: (must occur within 3 seconds)  
Dimmer channel at Zero (00)  
Special channel at 25% (3F) for "Home"  
Special channel at 50% (7F) for "Shutdown"
- or

As this three steps have to be done within 3 seconds, please store this settings as presets (see cap 3.2.2 of the Scancommander manual). The brightness Master of this scans have to be up during this steps.

After further 3 seconds the scans should start the selected function.

## Safety Instructions:

1. Read all the instructions in the user's manual.
2. Keep the user's manual for later use.
3. Follow all the instructions on the unit.
4. Pull the plug before cleaning the unit; don't use any liquid or spray cleaner. Clean with a damp cloth.
5. Don't use the unit near water.
6. Don't put the unit on unstable tables etc.. It might fall down and get damaged.
7. There are slots in the case for aeration; don't cover these slots up because they guarantee the reliable use of the unit and protect it against overheating. Don't install the unit into a frame unless sufficient aeration is guaranteed.
8. The unit is provided with a safety plug. This plug can only be used with safety sockets. These safety measures should by all means be followed. In case the plug doesn't fit into the socket (e.g. with old sockets), the socket should be replaced by an electrician.
9. Don't put any objects on the wire and make sure nobody steps on it.
10. In case you use an extension wire make sure the sum of the power consumption of the connected units does not exceed the maximum power of the wire. The sum of the units plugged in the socket should not exceed 10 Ampere.
11. Don't spill any liquid over the unit. Don't put any objects through the slots of the unit, as these might get in contact with parts that are live or might cause short circuits. This may cause fires and shocks.
12. Don't service the unit yourself as parts that are live might be exposed when you open the case; you run the risk of getting shocked. All services should only be carried out by a specialist.
13. If one of the following conditions occurs, please pull the plug out and call the service:
  - A. Wire or plug is damaged or worn.
  - B. Liquid got into the unit.
  - C. The unit was exposed to rain or got damp.
  - D. The unit doesn't work properly even if you follow the instructions of the user's manual.
  - E. The unit fell down and the case was damaged.
14. Only use wires which are marked safety proof.
15. Don't use any high-power walkie-talkies near the unit.

## DECLARATION OF CONFORMITY

according to guide lines 89/336 EWG and 92/31 EWG:

**Name of producer:** MALighting Technology GmbH  
**Address of producer:** Dachdeckerstr. 16 D-97297 Waldbüttelbrunn

*declares that the product*

**Name of product:** MA Scancommander & MA Scancommander Extension  
**Type:** MA SC1 & MA SCX I

*answers the following product specifications:*

**Safety:** EN60065, EN60950  
**EMV (EMC):** prEN55103-1 (E1), EN50081-1  
prEN55103-2 (E2), EN50082-1

**Additional informations:** All DMX512 and analogue inputs and outputs must be shielded and the shielding must be connected to the ground resp. to the case of the corresponding plug.

Waldbüttelbrunn, 07.11.1995



Dipl. Ing. Michael Adenau



# Scancommmander

**User's Manual**

**Version 4.31**

**CE**