

## GENERAL PLEAS FROM THE TECHNICAL DEPT.

**Please read this manual before you start calling, paging, emailing, & messenger pidgeoning, your friends, family, analysts, and manufacturers about how this board works!!!**

### INTRODUCTION

OK. It's probably about 4 am right now but it may as well be 4 in the afternoon. You couldn't care less because you're probably stuck in some huge black box somewhere in the middle of nowhere programming a jillion fixtures for some band that you wouldn't listen to if you had a howitzer to your head. It's cold, it's dark, you've been breathing diffusion fluid since last Thursday and you're missing out on being first (or last for that matter) on the catering line because you've got to learn how to use this little box that you've never heard of before.

We'll have another cigarette and simmer down because we're gonna get you through this quickly and efficiently. Let's face it, if you can do that the LD's gonna love you. And hey, that's all you really want right now anyway...right? I'm sure that you couldn't care less that you're all out of clean underwear and some rigger has just used up the last of the detergent in the venue's laundry area. We'll have you through this so fast that you'll be the first on line to get some swag off that sales rep from one of those scan companies.

If these first two paragraphs don't sound like your situation at all then you're probably sitting in a nightclub trying to figure this thing out which doesn't make the situation any less aggravating, you've just got the luxury of listening to some music while you do this.

We have divided the manual up into sections. If you have to learn this in a nanosecond there is the Quick, Quick Guide section. It is **basic** but it will get you through an emergency. If you have a few milliseconds, at the back of the manual is a Quick Guide. This will get you through triage but don't consider yourself a surgeon after reading it, because in making it quick and simple to read certain functions and concepts had to be left out.

Okay people if you're ready to getting going, we'll "hit the pages"!

# **HARDWARE**

## WHAT ARE WE DEALIN' WITH HERE?

OK, let's take a look at all the raw power that you've got at your disposal.

- **2 DMX-512 OUTPUT PORTS:** that's 1024 channels of unbridled Digital Multiplex baby!
- **MIDI IN & OUT:** for those of you who want to automate your show via MIDI the console accepts MIDI Note information.
- **DMX IN:** for linking another controller to the CP-100. By configuring specific Cues, Chases, Macros, & Hotkeys to respond to external DMX channel feeds, you can trigger events on the CP-100 via an external DMX controller.
- **COM PORTS 1 & 2:** are used for the addition of peripherals. **COM 2** is used for adding any DOS compatible tracking device (mouse, trackball, trackpad, etc.). **COM 1** is for future upgradability.
- **SVGA KNOCKOUT:** is there for the upgrade to an external monitor. It is available and this as an option worth having.
- **KEYBOARD PORT:** is obviously there so you can plug a keyboard into this thing. With the external keyboard you are able to label Cues, Chases, Fixtures, Presets, etc. as well as program user definable "HOT KEYS". Any IBM compatible keyboard will work with the CP-100.
- **EXTERNAL SWITCHER:** for switching externally! OK, if you're really lazy you can sit in a chair with cocktail in hand just tapping a footswitch to go from Cue to Cue. Those of you who really use this function know how it works so I needn't get into it here.
- **AUDIO INPUT:** is obviously for sending an audio signal from a pre-amp. 1/4" jack, a little music, and you're rollin'!
- **LITTLITE PORT:** for the popular plugin luminaire that allows you to see the "delete" button at all times. The 3 pin XLR version is used here. That snazzy little dimmer knob right next to it is not the Grand Master dimmer for the controller as I was once asked. It is in fact the dimmer for the Littlelite itself.
- **3.5" DISKETTE DRIVE:** for show backups, software upgrades, etc. Why do we use this? BECAUSE WE'RE SICK OF LAYING OUT GOOD BEER MONEY ON EXPENSIVE RAM CARDS, THAT'S WHY!!! (not that we're bitter or anything) With this handy little function, you can make backup upon backup of your show for mere pennies. Not to mention the fact that you can usually "borrow" diskettes from secretaries and other co-workers, which doesn't, cost anything, YEAH BABY!
- **SUBMASTER FADERS:** are on the left side of the controller. The ones at the top are labeled "Dimmers". You are able to add either individual or groups of conventional dimmers to these faders as well as the dimmer functions of your automated fixtures. The ones on the bottom are labeled "Submasters" and they're strictly for the playback of Cues, Chases, and Macros. Both of these Submaster sections are comprised of 99 pages of 6 faders each.
- **GRAND MASTER FADER:** will only control the dimmer function of your conventionals and automated fixtures. It won't vary every DMX channel on the controller. This will prevent your moving lights from drifting back into their zero positions when fading out. This spectacular effect we want to leave as an effect not incorporate into the design of the board!
- **X-FADE FADER:** is used to set the specific crossfade time of Cues as well as set the crossfade percentage for Chases.
- **CHASE SPEED FADER:** sets the Beats-Per-Minute (B.P.M.) time for Chases.
- **A/B FADER:** allows you to manually crossfade from Cue to Cue.

# **SETTING UP THE CONSOLE**

All right, lets start with physically setting up the console.

- 1) Take CP-100 out of the box.**
- 2) Attach any peripherals to the console. i.e.: trackball to COM 2 port, keyboard to the keyboard port, external triggering devices to their respective ports, etc.**
- 3) Plug in its power supply to the outlet and the power input jack on the back panel of the console.**
- 4) Turn the power ON. You'll find the power switch on the back panel of the console directly next to the power input jack.**
- 5) Wait for the console to boot up and validate it's software files. You'll hear a beep first. This tells you that the processor is present and functioning. If you don't hear it turn the board off and try again. Then you'll see a visual representation of the board loading its software followed by a display of the "Main Menu" display on the LCD screen. You're now up and ready. The engine is running**
- 6) Make sure that the "SOLO" button is ON, the "D.B.O." button is OFF and the "GRAND MASTER" fader is all the way up. This is imperative!**
- 7) Chock away, you're officially ready to taxi down to the runway! You've got to get to the runway, do your pre-take off procedures and then apply full power. Just take your time otherwise you're liable to have a take off abort, and that wont be fun for anyone!**

# DISPLAYS

## WHAT ARE WE TALKIN' 'BOUT HERE?

It's no secret that every manufacturer has a different language. Some people call a "scene" a "cue", others call a "chase" a "sequence", some call rap music good, and so on. So let's start by defining just what it is we're talking about.

- **CUES:** are specific looks. What you see is what you get. You can execute Cues with individual Crossfade times as well as use them to comprise chases.
- **CHASES:** are a group of Cues link together and animated. Chases can be run in several different ways. We'll get to that when the time comes.
- **MACROS:** are a group of Cues, Chases, and Blackouts linked together and animated. Each individual step is given a start and end time.
- **PRESETS:** are spots on the stage that the moving lights are positioned on. This concept is most frequently known as "Preset Focus".
- **FEATURE PRESETS:** are combinations of the different features of the lights that you are using. Features such as color, gobo, prisms, gobo rotation, etc. all comprise of a Feature Preset. This concept is sometimes known as a "palette".
- **ROTARIES:** are.....well look at the CP-100. Do you see those 8 round knobs on the top of the board? Well, those are rotaries. You're gonna spin those puppies around a few times to make the lights do pretty things. **DON'T START PLAYIN' WITH 'EM NOW!!!** Be patient for god's sake! (You're zigzagging the plane on the taxiway!).
- **N** The concept of **N** is that it is any number that you want it to represent. So if you something like "add feature preset n", then it means you can call n any number. So n could be 10, 16, 1000, or 1. We also sometimes have to use **X** and **Y**. They are the same thing as **N**. So you'll see statements such as "add feature preset n to fixtures x and y". Sorry for the algebra lesson 101 promise you that's it.

## THE MAIN MENU

The CP-100 MAIN MENU is the first display that you will see upon start up of the controller.

### *Main Menu Display*

CP-100 MAIN MENU 4:59pm  
F1 Storage F4 Miscellany  
F2 Hotkeys F5 Triggers  
F3 Clock setting

Each of the function keys just below the display will access the specific submenus.

The menus are as follows:

- **STORAGE**

This submenu allows you access to the storage of information onto disk.

### *Storage Display*

STORAGE: Name:  
F1 Objects  
F2 Software  
F3 Memory

Within the STORAGE menu you are able to save & load the objects within the controller. The objects consist of fixtures and show information. You are able to save & load just the fixtures in your show, save & load just the show information itself (Cues, Chases, etc.), or save & load all of your information.

### *Objects Display*

OBJECTS:  
F1 Save all F4 Load all  
F2 Save fixtures F5 Load fixtures  
F3 Save show F6 Load show

- **SOFTWARE**

The SOFTWARE display allows for the saving and loading of different versions of software. After inserting a software disk into the diskette drive and accessing the SOFTWARE display, the readout will show you which version of software is currently installed into the CP-100 and which version is on the diskette.

### *Software Display*

SOFTWARE:  
F1 Save software This version: 1.07  
F2 Load software Disk version: 1.14

- **MEMORY**

The MEMORY display also allows you to view the amount of total memory that has been used. Since there is no specific limit to the actual number of Cues, Chases, Macros, Presets, etc. that you can store the percentage readout is used to monitor the controllers memory performance.

**Memory Display**

MEMORY USAGE:    NV Objects: 211  
Free RAM: 3011840    Free NVRAM: 120672  
Used RAM: 130560    Used NVRAM: 10400  
% Used: 4        % NV Used: 1

- **HOTKEYS**

The HOTKEY EDITOR display allows for the quick programming of multiple button press commands that can be accessed through an external keyboard. So a single button on the keyboard could save you multiple keystrokes on the board.

**Hotkey Editor Display**

HOTKEY EDITOR:    Key: Alt+A  
F1 Delete        Name:  
  
Clear All Enter

- **CLOCK**

Yeah, this thing's got a clock on it so that you can see just how much overtime you're putting in. To change the time and dates simply use the cursor keys to move the cursor to the appropriate field, either type the desired number and press ENTER or use the +YES/-NO keys to increment the numbers up and down.

**Clock Setting Display**

CLOCK SETTING:  
Wed \_3/27/97 \_3:13 pm

- **MISCELLANY**

This dandy little menu allows access to all sorts of cool stuff.

**Miscellany Display**

MISCELLANY:  
Audio sens.: 8        Mouse speed: 5  
Lock: on            Mouse swap: 01  
Record time: no     Footswitch: go

- **AUDIO SENS**

As you may have guessed, this allows you to set the sensitivity of an incoming audio signal when

using the external audio trigger port.

- **LOCK**

Allows you lock out the controller’s memory to prevent overzealous audience members from messing around with your show information. You are also able to prohibit the alteration of Stage Focus as well. It would be a crying shame if someone were to alter your Stage Focus just before a show.

- **RECORD TIME**

This is used for the recording of MACROS. When set to “YES” the macro will record in real time. So the button presses that you make will be recorded in the actual time that it takes you to press them. When set to NO, you will have to enter the start and end times of each step in the macro.

- **MOUSE SPEED**

This adjusts the sensitivity of your external tracking device from 0 (slowest) through 10 (fastest).

- **MOUSE SWAP**

Your tracking device should have at least 2 buttons on it. One of these buttons will move your light beam in its coarse mode while the other will let you move it in it’s fine mode without having to press the FINE button on the controller.

- **FOOTSWITCH**

This function is linked to the EXTERNAL TRIGGER jack on the back of the controller. When set to GO it will accept an external trigger that will step through the Cues one by one. When it is set to KILL a signal from the external trigger will activate a D.B.O. (dead black out), which will shut off all of the light beams. This is mainly used in nightclub venues where law requires the fire alarms to be linked to the entertainment lighting system. By triggering the fire alarm the fixtures will shut off allowing for less confusion during an emergency.

- **TRIGGERS**

This display allows you to configure the triggering of Cues, Chase, Macros, and Hotkeys via either the DMX input or MIDI note information.

### *Triggers*

<b>TRIGGERS:</b>	<b>Cue: 3</b>	<b>5 ---</b>
<b>F1 Stop all</b>	<b>Chase: 2</b>	<b>14 D#0</b>
<b>DMX: Norm</b>	<b>Macro: 1</b>	<b>1 C0</b>
<b>MIDI: Norm</b>	<b>Hotkey: Ált+Z</b>	<b>DMX</b>

Triggers are explained in detail on page 57.

# **THE QUICK, QUICK INSTRUCTIONS.**

## QUICK, QUICK INSTRUCTIONS

For those impatient sods that don't want to take the time to read this dissertation of a manual word for word, I will cut to the chase and show you how to do the basics. It is basics, so you will not be a programming genius after reading this. So if you want to **understand and use** all the features of the board and not screw yourself up you're going to have to read whole manual.

### ADD A FIXTURE

1) Press **ADD-FIXTURE-ENTER** to bring up the "Add Fixture" display.

```
ADD FIXTURE:      Fixture no.: 2
F1 Add
                  Type: Silverado
```

2) Move the cursor by using the 4 arrow keys to the immediate right of the display to get the cursor beside the word "Type".

3) Then, using the "+YES" or "-NO" keys, scroll through the fixture library to get the fixture that you want. Press "F1" to put it into your list of fixtures to be used. The "Edit Fixture" display will appear:

```
EDIT FIXTURE:      Fixture no.: 1      H
F1 Add another     Name: _
F2 Delete          Type: GoldenScan HPE
                  DMX Port: 1
```

4) Use the < & > buttons to move to the "DMX PORT" field and type in the number of the DMX port that your data cable is hooked into and press ENTER.

5) Use the < & > buttons to move to the "BASE CHANNEL" field and type in the number of the DMX start address for this fixture and press ENTER.

6) Press: F1 to add another fixture and repeat steps 2 through 5.

7) Press: FIXTURE-n-ENTER to call up the fixture.

## STORING A CUE

- 1) Move the lights into position & adjust their features to make a pretty look. You can also use your Presets and Feature Presets to do this for you.
- 2) Press STORE-CUE-n-ENTER to save the Cue
- 3) Press CUE-ENTER to see the Cue Editor display

```
CUE EDITOR:          Cue number: 1
Preset (1): 7        Name: _
Fix Filt (0): 0      In time: 2.5
Dim Filt (0): 0      Out time: 2.3
```

- 4) Move the cursor to the respective positions to change the fade In Time, Out Time, Name, etc.
- 5) Press STORE-CUE-ENTER to save the Cue with it's new information.
- 6) Press CUE-n-GO to see the Cue happen.

## STORING A CHASE

- 1) Press CHASE-ENTER to bring up the Chase Editor display.

```
CHASE EDITOR:        Chase number: 10
Step rate: 120       Name: _
Xfade %: 50          Step (8): 1
Mode: forward        Cue (1): 55
```

- 2) Move the cursor to the "Cue" field.
- 3) Press CHASE-RECORD to turn on the "Record" LED

**NOTE:** the "Record" button is located on the right side of the board above the "Grand Master" fader.

- 4) Press CUE-n-ENTER
- 5) The "Step" in the chase editor should increment by one. If it doesn't, make sure that the "SOLO" button LED is lit.

**NOTE:** general rule of thumb...just keep this button on at all times and make sure it stays on! We'll get into it later.

- 6) Repeat step 4 until all the Cues that you want are in the Chase.

- 7) Press the “Record” button to turn the LED off.
- 8) Use the “Chase Speed” & “X-fade Time” faders to set your Step Rate and Cross fade percentage. If you enter a zero for chase speed then you will be able to manually play the chase yourself.
- 9) Move the cursor to the “Mode” field and use the “+YES” & “-NO” buttons to set the desired replay mode.
- 10) Press STORE-CHASE-n-ENTER to save the chase.
- 11) Press CHASE-n-GO to start the chase. If the chase speed has a zero rate then the chase can be controlled by tapping the ‘enter’ key.

### **STORING THE FRUITS OF YOUR LABOR ONTO SUBMASTERS**

- 1) Press ADD-CUE (or Chase)-TO-SUBMASTER-n.n-ENTER.

This adds the Cue to a specific Submaster page and fader.

i.e.: If you were to press ADD-CUE-1-TO SUBMASTER-7.3-ENTER then Cue number 1 would be placed on Submaster Page 7, Fader number 3.

- 2) Press CLEAR-ALL-ENTER to clear your fixtures.

- 3) Go to the specific Submaster Page and raise the fader that you stored stuff to. Voila, there it is!

Well, that’s all folks for the Quick, Quick guide! There is a more detailed Quick Guide added to the back of this manual but if you want to learn more...read the rest of the book. This should be more than enough to make you dangerous on this thing.

# **SETTING UP YOUR SHOW**

# SETTING UP FIXTURES FOR YOUR SHOW

## ADDING FIXTURES

The first thing that you need to do is tell the controller what fixtures you intend on programming. So let's add some fixtures to our show!

**1) Press ADD-FIXTURE-ENTER to bring up the "Add Fixture display.**

```
ADD FIXTURE:      Fixture no.: 2
F1 Add
                  Type: Silverado
```

**2) Move the cursor by using the 4 arrow keys to the immediate right of the display to get the cursor beside the word "Type".**

**3) Then, using the "+YES" or "-NO" keys, scroll through the fixture library to get the fixture that you want. Press "F1" to put it into your list of fixtures to be used. The "Edit Fixture" display will appear:**

```
EDIT FIXTURE:      Fixture no.: 1
F1 Add another     Name: _
F2 Delete          Type: GoldenScanHPE
                  DMX Port: 1
```

**4) With the cursor buttons you can move around the screen to the following fabulous locations:**

**NAME-** with the external keyboard you can give the fixture an appropriate name such as "Bob" or "Upstage Cyber 1"

**DMX PORT-** 1 or 2 if that's where your data line is feeding out from.

**5) With the right cursor key you can get to the 12 other secret displays as follows:**

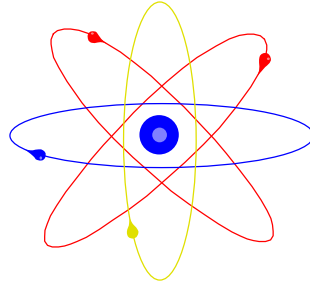
**BASE CHANNEL-** In other words, what's the DMX start address for that particular fixture. The board will automatically default to the next available free address. If you change the channel number then don't forget to press ENTER. This is the ONLY time you'll have to remember DMX number. YEHA!!!

**PAN INVERT-** It's set at normal. To invert it press 1-ENTER.

**TILT INVERT-** See Pan Invert.

**PAN/TILT SWAP-** See Tilt Invert.

**POO, PO1, TOO, TO1, P10, P11, T10, T11-** These funny looking things are the Stage Focus values. Don't worry about them now. Don't mess around with 'em either! We'll go into them later on in the manual. I'd explain all about it here but that would take only slightly longer than trying to split an atom in your backyard with a terminal driver and a pair of dikes!



You would now either press “F1” to add another fixture, “F2” to delete it, or FIXTURE-n-ENTER to play with the pretty lights.

## **MAKING THE FIXTURE THAT'S NOT THERE**

The guys at Elektralite are pretty quick when it comes to upgrading software with the latest fixtures on the market incorporated into it but you've got to give 'em a brake now and then. OK, let's say that Martin has come out with the next best fixture since sliced bread and it's got the usually nominal amount of, oh let's say, **47** channels of DMX.

You're not stuck with nothing to control it with if it isn't in the universal fixture library. You can make a fixture that will control it for you. It won't have all of its channels individually labeled but it will work the unit properly (or to the best of the fixture's abilities) until the next software upgrade comes out. This feature is known as adding a DMX FIXTURE.

In the ADD FIXTURE display simply use the +YES & -NO keys to scroll to DMX FIXTURE and press F1 to add it. The next thing that you'll see is the EDIT FIXTURE display.

```
EDIT FIXTURE:      Fixture no.: 1
F1 Add another     Name: _
F2 Delete          Type: DMX Fixture
                   DMX Port: 1
```

Now if you use the < & > keys you can scroll through the bottom field. The first thing that you'll have to do is assign this fixture a DMX Port and then give it a Base Address. The next field will prompt you to enter a Channel Count number. This is the total number of channels that the fixture will consume. Simply type in the number of channels and press ENTER. Once you've done that press the > key again and you'll then be prompted to assign the fixture a Dimmer Channel. Simply type in the channel that controls the dimmer function of this new fixture. The main reason for doing this is so that the Grand Master Fader knows which channel to dim out for you.

There is now another 'solution' to your problem; **Version 3 Operating System. Version 3 OS** adds the ability for you to make your own fixture with full support. In other words, you can choose names for every feature. You can also decide how the feature should work, in fact with this operating system

you would be able to setup a fixture just like the guys at Group One do. To do this you're going to need to have access to a PC computer and some floppy disks. All the files are just simple .txt files (text files). If that's something you want to try then just buzz your friendly local distributor and ask him for the Upgrade to **Version 3 Operating system**.

#### **For your knowledge and information**

Version 2 operating system adds a monitor output and all the necessary software to run it.

Version 3 operating system adds what has just been described. (Outboard fixture customization).

Version 4 operating system adds an effects generator/engine for automatic insertion of circles, ballyhoos etc.

Version 3 & 4 operating system also have the capability of running the expansion submaster panel for a CP-100. The expansion panel adds 12 dimmer submasters and 12 regular submasters. This panel becomes integral to the CP-100. It is not a stand alone unit. In this way, you end up with a single complete controller not a "hodgepodge" of pieces.

### **GROUPING FIXTURES**

It is possible to put 2 or more fixtures into any given group number. This allows you to access the features of multiple fixtures at one time. It is also possible to place dissimilar fixtures into the same group.

i.e.: You can have 3 of your Cyberlights in Fixture Group 1 and then add 5 of your VL6's into the same group. When you access Fixture Group 1 and change the color rotary, the first color wheel of the Cyberlights and VL6's will begin to increment.

To place fixtures into a group:

- 1) Press ADD-FIXTURE-x-THRU-y-TO-GROUP-n.**  
(For example Add Fixture 1thru 12 to group 1).

There are several variations of this command that you are able to use. See the "Command Set" section of this manual for other options.

To access a Fixture Group:

- 1) Press: GROUP-n-ENTER**

This will display the "Group Features" display. You are now able to use the rotaries to alter the different features of the fixtures within the Fixture Group.

**See the Command Set of the manual for more information on: GROUPING  
FIXTURES**

## **GOOD HOUSEKEEPING**

Listen up people! None of us like authority or discipline but we can't have anarchy reigning with this board. The point is you have to be aware of what channels/features are live when you record a cue. There is a major difference between seeing a value of "0" and seeing "---" on the display. Those three little lines mean that the rotary(s) is cleared and that means that rotary is not going to be recorded in the Cue or Preset. **A value of "0" is a tangible DMX value.** It doesn't clear the channel/feature, it just outputs it at 0%. 0% can have a lot of different meaning depending on the fixture type and feature that it is applied to. For example, if applied to a feature like an iris, the iris could end up being shut or fully open depending on the fixture type. So if you are reviewing your cues and suddenly the iris slams shut and you had it open and you didn't want it to close up, then chance are that you have a wrong value in the iris feature.

So be careful with cues, feature presets and presets. It is easy to forget and accidentally record features that you don't want. Use the clear all function **liberally** to make sure that you start from square one each time before programming a cue, feature preset or preset and this way you will avoid an errors.

# LIGHTS THAT DON'T WIGGLE

## ADDING CONVENTIONAL DIMMERS TO YOUR SHOW

All right, now it's time to add some conventionals to this thing. There are 2 different ways in which you can add a dimmer to the controller. The first is by adding the dimmers as separate fixtures within the show. The second, and much more efficient way, is by simply adding the dimmer as an individual DIMMER. This completely separates your conventional lighting from your automated fixtures.

### **1) Press ADD-DIMMER-ENTER**

This will call up the ADD DIMMER display.

```
ADD DIMMER:          Dimmer no.: 2
F1 Add
                        Type: Dimmer
```

### **2) Press F1 to add the dimmer to your show**

The EDIT DIMMER display will be shown.

```
EDIT DIMMER:          Dimmer no.: 1
F1 Add another        Name: _
F2 Delete             Type: Dimmer
                        DMX Port: 1
```

This display works exactly like the EDIT FIXTURE display. Simply use the cursor keys next to the LCD display to move the cursor from field to field. From here you are able to use the external keyboard to Name the dimmer, assign the DMX Port, and assign the Base Channel of the dimmer.

### **3) Press F1 to add the next dimmer to your show.**

As you add dimmers to your show, the Base Channel will automatically increment by 1. If you need to you can change the Base Channel of any dimmer as you add them.

## GROUPING YOUR DIMMERS

You are also able to group your conventional dimmers as well. This becomes particularly useful when adding dimmers to submasters.

Dimmer Groups are different from Fixture Groups and the commands for adding each to their respective groups don't need specifying. The following command should help explain.

### **1) Press: ADD-DIMMER-x-THRU-y-TO-GROUP-n-ENTER**

This will add the specified dimmers to a specific Dimmer Group without you having to say “ADD-DIMMER-x-THRU-y-TO-DIMMER-GROUP-n”. The controller automatically knows to add conventional dimmers to their own groups. Fixtures 1 & 2 may comprise Fixture Group 1. If you add dimmers to “Group 1” it's not going to put them into the Fixture Group but rather in it's own Dimmer Group.

Once you've made your Dimmer Groups you can then add them to Dimmer Submasters.

**See the Command Set of the manual for more information on: DIMMERS.**

## ADDING THOSE DIMMERS TO DIMMER SUBMASTERS

Dimmer Submasters allow you to set your dimmer levels with the faders instead of the rotaries.

To add Dimmers to Dimmer Submasters:

### **Press: ADD-DIMMER-x-TO-SUBMASTER-n.n-ENTER.**

This will add the selected Dimmer to a specific Dimmer Submaster page and fader. Likewise you may add your Dimmer Groups to specific Dimmer Submasters.

### **Press: ADD-DIMMER-GROUP-n-TO-SUBMASTER-n.n-ENTER**

These commands will add the dimmers to faders at their full percentage. You can limit the maximum output that a dimmer fader will have by specifying it at the end of your command line. Let's say you wanted to add dimmer number 1 to Dimmer Submaster page 2, fader 3 with a maximum output of 75%.

### **Press: ADD-DIMMER-1-TO-SUBMASTER-2.3-@-75-ENTER**

Now when you raise Fader 2.3 all the way up it will only output Dimmer 1 at 75%.

## **ADDING AUTOMATED LIGHTS TO DIMMER SUBMASTERS**

It is also possible to add the dimmers of your automated lighting to Dimmer Submasters. Now that's neat. One fader to bring up both your conventions and automated.....what a concept and all brought to you from the comfort on your own CP-100.

**Press: ADD-FIXTURE-x-TO-SUBMASTER-n.n-ENTER**

**See the Command Set of the manual for more information on: EDITING  
FADER ASSIGNMENTS**

# **MORE ADVANCED STUFF**

# PRESETS & THE HI-LITE FUNCTION

## STORING AND RECALLING PRESETS

Before we jump into this one and show how to create and edit presets and feature presets let's define exactly what is a preset and feature preset.

### **Presets.**

The original idea behind the concept of presets was what was called 'preset focuses'. Preset focuses overcame a real problem when you toured with moving fixtures. The problem was getting the fixtures into exactly the same position every night. In fact it was (and still is) just about impossible to physical have your fixtures in identically the same position in two different venues. You can get them close but not perfect.

In the prehistorical days of the late 80's and early 90's, you would start off the tour with a rehearsal in the same venue for a few days. Here you would program up this unbelievable lighting plot. Come to the first venue on the tour and you would scroll through your 'looks' on stage and the fixtures would not be going to where you had programmed them to in the rehearsal. Now you'd work frantically all afternoon and early evening (yep forget about the dinner call!) going through every cue, chase, and macro touching up the positions for every light. It was a nightmare.....well that's what I was told because, of course, I was too young to remember!

The solution to this problem was preset focuses. They were like special cues that you only stored the position of each fixture. So you would create preset focuses like the following:

Preset 1	All fixtures center stage
Preset 2	All fixtures stage left
Preset 3	All fixtures stage right
Preset 4	All fixtures up stage
Preset 5	All fixtures down stage
Preset6	All fixtures out into the audience

And so on.

Now you would add the preset focus position to the cue and then when you moved from venue to venue all you would need to do was update your preset focus position. [The important point to remember here is you **add presets to a cue**].

The CP-100 allows you to do this, not only for positional information (in other words pan and tilt) but any of the features of the fixture. In fact, it is an idea that when you record presets that you record pan, tilt, focus and perhaps (if it's not in the full open position) iris. Of course that's if your fixture has an iris and focus features! It would be kind of hard if it didn't!

With this in mind let's record a plain old Preset.

For example, "Preset 1" could be all of your Silverados focused on center stage. The easy way to do this is to:

**1) Press: CLEAR-ALL-ENTER to clear all of the rotaries of your fixtures. This starts you with a 'clean' slate.**

**2) Press: HILITE-FIXTURE-n-ENTER to hi-lite your fixture number n. This will open your dimmer, iris, gate, color mixing, etc. but this information will not be recorded that into the**

preset. These features will be transparent to the preset you record. You can also use commands such as **HILITE FIXTURES 1 THRU 12 ENTER**. Hi-lite saves you the problem of turning on the features one by one to 'see' the fixture before you program the preset. An 'H' will appear on you display at the top right. This is to remind you that you have Hi-lite turned on. Do not forget that you've got it turned on and remember that it makes those certain features transparent.

**3) Press: FIXTURE-n ENTER to bring up the Fixture Features display:**

```
FIXTURE FEATURES:  Fixture no.: 1    SH
FPreset (1): 9     Type: Silverado
Color---- Pan=113
Gobo----  Tilt=39
```

**4) Move all of your fixtures into a desired position making sure that you only change the Pan and Tilt values. Everything else should have those three little lines (---).**

**NOTE:** if you change another rotary value accidentally, simply press CLEAR-ROTARY-n-ENTER. If you have any value other than those three little lines (---) the value will be recorded in the preset and will therefore be used when you play back that preset.

**5) Press STORE-PRESET-n-ENTER.**

I would assume that you'd like to see if this actually worked. So take your fixtures and move them to a different position. Then give a CLEAR-ALL-ENTER command.

**6) To call up a preset press PRESET-n-ENTER**

Voila, the fixtures are back into the Preset's position.

You would now combined a preset with a cue by simply pressing **add preset n to cue n**. If you already have the cue up in front of you, then all you would need to press is **add preset n**. The preset will be added to the cue and the features that have a preset will have the letter P added to the display. So you can easily identify what has been added to your cue.

Okay so that's presets. Well what's the problem with them? .....

Times up!

Well, the problem arises when you want to be fixture selective. Say you try to record color or gobo or prisms into a preset. Let's say you do the following

- Preset 7      All fixtures in red
- Preset 8      All fixtures in Blue
- Preset 9      All fixtures with the 9 way prism

What happens when you want to **add preset 7 to a cue** but instead of all fixtures, you only want fixtures 2 and 4? You can't do it! You'd have to make another preset for specifically those fixtures. Now you've opened up Pandora box and are into making a zillion presets to cover all possible combinations of fixtures. And that's the problem with normal presets, they are **fixture specific**. They are stuck rigidly to that group of fixtures that you have chosen. So what's the solution? Enter to the rescue, Feature Presets.

## FEATURE PRESETS

“I want fixtures 1 thru 6 and fixtures 15 thru 21 in red now!” Ever had an impatient LD call that one out?.....and then keep questioning you as to why it is taking so long for you to achieve. Telling the LD to ‘take a hike’ may not be the solution and it could end your job security. The solution to the problem is Feature Preset. You would create a feature preset for the color and then all you would do is add it to the fixtures. Feature presets are like creating palettes. The palettes can be made not only for colors but for any feature of the fixture.

For example, you’ve got 20 Cyberlights in your rig. You’ve put all of your Cyberlights into Fixture Group 1. You then take just one Cyberlight, open the dimmer, iris, and shutter, dial in the “cone” gobo, superimpose the “ribbed glass” gobo rotating slowly, dial in the red dichro on the color wheel and then save this look into Feature Preset 1. Even though you’ve only used one Cyberlight to make this look you can now say

ADD-FEATURE-PRESET-1-TO-GROUP-1-ENTER

BAAAAAM!!! All of your Cyberlights have funky red cones with this weird spinning effect. It’s easy and if you make a load of feature presets you can take them on you disk to your next gig and use them there. Remember it is not fixture dependent. All that the board does is memorize the values for the features you access using the rotaries. This means you can take you board home with one fixture, you’ll be using for the tour or show, and start building a data base of various looks that you like and making into feature presets. As a matter of interest, I have built up a data base over the years such that I have

Feature presets 1 thru to 100 are just color wheel looks.

Feature presets 101 thru to 199 are just fixed gobos looks.

Feature presets 200 thru to 299 are just rotating gobo looks.

Feature presets 300 thru to 399 are just prism looks.

Feature presets 400 thru to 499 are just color mixing looks.

This way I have things organized in an easy to remember manner. Obviously within each section, for example feature presets 400 thru 499, I have color mixing looks for a variety of different types of fixtures.

Okay now for the “do’s and don’t” of making your feature presets.

1. Do always add the feature preset to a fixture or group of fixtures. Do not try to add it to the cue directly. So **Add feature preset 5 to fixture 10**, is a valid command and will be executed. **Add feature preset 5 to cue 10**, is not a valid command.
2. Do use the Hi-lite command to help you record gobos, color wheel, or prism feature presets.
3. Don’t use the Hi-lite command to record dimmer, color mixing, or iris feature presets. The default job of the Hi-lite function is to turn the fixture on, open up the iris and have the fixture in white. Because it does this, you can’t change their values. So if you want to record dimmer, color mixing or iris settings as feature presets, hi-lite must be turned off.
4. Don’t forget, if any of the fixture’s feature has any value is the display other than those three little lines then that value will be stored into the feature preset. The three lines make the feature transparent and it will not be stored into the feature preset. So, if you have a beautiful color mixing setting and you want to record it as a feature preset, make sure that features such as the pan and tilt, dimmer, iris and so on have the three lines. Just to remind you, the way to

get those lines for a feature, is to press **clear rotary n enter**. Remember you can use the all or thru or except commands to speed up the procedure. So if rotaries one and two are pan and tilt and they have numbers on them and you want to make them transparent then press **clear rotary 1 and 2 enter**.

So, how do we actually pull off making a feature preset? Well, let's start by clearing all the channels on the controller.

### 1) Press: **CLEAR-ALL-ENTER**

Now that we have a clean slate, call up a fixture and open up it's dimmer, iris, shutter, etc. so that we've got some white light coming out of it. Then move the light beam into a position where you can see it clearly.

Now remember there can't be any values on the Pan or Tilt features. So once you've moved the light beam into position you've got to clear the Pan & Tilt. Look on the display to see which rotary numbers Pan & Tilt features fall on.

### 2) Press: **CLEAR-ROTARY-n-AND-n-ENTER**

You should now have "---" (the little lines) on the Pan & Tilt features.

Now you're ready to make a look. Use the rotaries to dial in some color, a gobo, and whatever else seems to look good to you. When you're finished you can store this look as a Feature Preset. Remember at this stage you will also be recording the dimmer value into the feature preset. If you do not want to have the dimmer channel in the feature preset you will have to press **CLEAR ROTARY n ENTER** for the dimmer channel at this time. Then

### 3) Press: **STORE-FEATURE-PRESET-n-ENTER**

You're done! So now you're going to want to check to see if you've done this right. Take that same fixture and mess up the features. Change the color, gobo, etc. and then do the CLEAR-ALL-ENTER command to make sure that everything's cleared out.

### 4) Press: **ADD-FEATURE-PRESET-n-TO-FIXTURE-n-ENTER**

That fixture should now have the look that you just made using the Feature Preset.

You can now give this Feature Preset a name as well as viewing it and changing the individual parameters of it. To do this

### 5) Press: **FEATURE-PRESET-ENTER**

```
FEATURE PRESETS:   Number: 1
F1 Clear feature   Name: _
                   Pan: 37
```

This display shows you what's in the current Feature Preset. You can change Feature Presets by moving the cursor to the number field and use the +YES & -NO keys to increment up and down or

you can just type in the number that you want and press ENTER. Obviously, you can give the Feature Preset a name in the “name” field by using the external keyboard. The bottom field allows you to scroll through the different features within the Feature Preset. Regardless of where the cursor is, you can use the < & > keys to scroll through the different features. F1 is used to clear the viewed feature from the Feature Preset as well as delete the Feature Preset entirely after all of the features have been cleared. Of course the whole viewing process is a darn sight easier using a monitor providing your CP-100 is equipped with the video hardware and software. This is a worthwhile upgrade to your system. Sorry for the sales pitch here but I got a growing family to support!!

**See the Command Set section for more information on: FEATURE PRESETS & Presets.**

## **COMBINING PRESETS & FEATURE PRESETS TO MAKE A CUE**

The whole point of being able to use this preset stuff is so that you can program and more importantly edit and reprogram your cues faster. So let’s learn how to combine the two of them.

### **1) Press: CLEAR-ALL-ENTER**

This enables us to start from a clean slate. This is always a good thing to do. It is good housekeeping! Now pick which feature preset you want to add to which fixtures you want in the cue you going to make.

**2).Press: ADD-FEATURE-PRESET-n-TO-FIXTURE-n-ENTER.** Or you could do **ADD FEATURE PRESET n TO GROUP n ENTER.** (If you have a fixture group).

Now all of those fixtures should have that specific Feature Preset look. You can now store this as a Cue.

### **3).Press: STORE-CUE-n-ENTER.**

Now we have to get the fixtures into the position you want.

### **4).Press: ADD PRESET-n- TO CUE n ENTER**

Notice anything about this process. It isn’t rocket science!

Now you see in your cue that you have a simple indication of what features are recorded as Feature Presets (F) and what are recorded as Presets (P). Check out you fixture is the display and ‘ow and aw’ at the pretty Fs and Ps. As I said before it ain’t rocket science!!!

Just remember:

1. Presets to cues.
2. Feature presets to fixtures or groups of fixtures.
3. Don’t forget the little lines for transparent features.
4. Use the Clear command all the time to avoid any channels sneaking in without you knowing!
5. Finally remember if a fixture is on and you’re not working with it right now. It does **not** mean it is **not** going to be recorded into the preset or feature preset. If features are on, they are going to be stored in the preset or feature preset.

# **ACTUAL PROGRAMMING**

## Storing a Cue

By now you should be proficient enough to start getting to the heart of programming this thing. That's if you've read this manual step-by-step instead of skimming through it picking and choosing sections to read all the while rocking forward and backward from toe to heel and mumbling things like "why did I take this gig? Why didn't I stay at home?" Well we're sorry that you have made yourself 'certifiable' but if you go back and stop skimming, you'll gain back your sanity.

The first thing you need to do is make a specific look with your fixtures. You can either make one from scratch or you can use those dandy Presets & Feature Presets to make one faster. Once that's done you're ready to store your Cue.

### 1) Press STORE-CUE-n-ENTER to save the Cue

**\*NOTE: It's important to specify a Cue number. The command STORE-CUE-ENTER will simply wipe over whatever Cue was currently in the Cue Editor. If there is already a Cue in there and you specify a Cue number the controller will prompt you with an overwrite warning, asking you if you really want to wipe out the old information and replace it.**

### 2) Press CUE-ENTER to see the Cue Editor display

```
CUE EDITOR:          Cue number: 1
Preset (1): 7        Name: _
Fix Filt (0): 0      In time: 2.5
Dim Filt (0): 0      Out time: 2.3
```

This display gives you information on how many Presets are currently in the Cue & which ones they are, as well as allowing you to Name the Cue. You are also able to give the Cue a specific fade In Time and fade Out Time.

Cue 1 is sort of special in that it is executed automatically whenever the controller is turned on. Because of this we suggest that you make Cue 1 a reset or home Cue for all of your automated lighting.

### 3) Move the cursor to the respective positions to change the fade In Time, Out Time, Name, etc.

Fade In & Out times may have any time value from 0 through 6500 seconds (don't you dare call up asking if we can make it longer). There are two ways to set the In & Out Times within the Cue Editor. First use the < & > keys to move the cursor to the appropriate field. Once you've done that you can either type in a specific time or use the X-FADE TIME fader to scroll through the values from 0 to 6500.

The Cue itself can be given any number from 1 through 99,999. The Cue numbers are also capable of supporting point cues or cue that have a decimal within them

i.e.: Cue 5.2 or Cue 500.992

The highest point cue that the board is capable of supporting is Cue 99999.999 (impressive, aint it?)

**5) Press STORE-CUE-n-ENTER to save the Cue with it's new information.**

You're done! The Cue is now saved with its new information and you're ready to play back the Cue.

**One final thing, oh geniuses of the 'lighting thing', you need to do some good housekeeping.** You should now type the In time and Out time back to zero. If you leave any value in the In time and Out time fields when you go to create the next cue those times will be put into the next cue. Got it.

**6) Press: CUE-n-GO to play the Cue with it's new information.**

When you playback a Cue by using this GO command you will see the Cue happen with its applicable X-fade time. If you were to simply press CUE-n-ENTER, the Cue would automatically snap in as if it had a 0 second X-fade time. This makes life quicker when you want edit a cue with a long fade In time.

To proceed playing back the following cue, you may press the GO button again or you can manually take control over the fade by using the A/B fader. That's kinda neat when you using the cues to track an artist across a stage. This way you can control the movement speed manually.....even go backwards if necessary.

*(Aside: Listen up people! We don't want to be self-praising but do you know the amount of processing power to do that sort of feat? You've got to compare all 1024 channels of DMX for both the cue you started at and the cue your going to and then track them both. All from a board that's **at least** half the price of it's nearest competitor!....and in fact a lot of more expensive 'pieces of electronics' will avoid doing anything like this type of control. Instead any fader on the controller, will only work the dimmer of the fixture and not even control any other feature. So, pat yourself on the back you didn't get fooled by those 'other boards' out there trying to be a moving light console. You should be very proud of the decision you made to buy a CP-100 and that's no bologna! So next time anyone say to you that they've got the 'best' moving light console, you can throw some serious questions at them and if they don't make it then you can tell them to go eat some bologna!)*

It is also possible to playback multiple Cues at one time!!!

**7) Press: CUE-n-AND-x-AND-y-GO**

i.e.: CUE-1-AND-27-AND-236-GO would execute those 3 Cues simultaneously.

## ADDING YOUR DIMMERS TO THE CUE

Once you've added Dimmers to Dimmer Submasters you can set the output of the Dimmers with those faders and then add that particular output to your Cues.

**1) Press: ADD-DIMMER-SUBMASTER-ENTER**

Once you've added the Dimmer Submasters to a Cue you then must re-store that cue.

**2) Press: STORE-CUE-ENTER**

# CHASES

## Storing a Chase.

Now that you've tackled the brute challenges of making cues, you'll probably want to see them loop around a few times. Here's how we make Cues turn into Chases.

### 1) Press CHASE-ENTER to call up the Chase Editor Display

```
CHASE EDITOR:      Chase no: 1
Step rate: 120      Name:
Xfade %: 0          Step (0):
Mode: forward       Cue (0):
```

This display shows the current Chase in the Chase Editor and all of its information.

- The first time that you make a Chase the **Chase Number** will default to 1.
- The **Name** field is there for you to give the Chase a cute name so you can remember what it does.
- The Step field will show you, in parentheses, how many Steps are in the chase and which one was last entered.
- The Cue field shows you, in parentheses, how many Cues are in the current Step and which one was last entered.
- The **Step Rate** defaults at **120** BPM (Beats Per Minute) and can be altered with the Chase Speed Fader from a value of 0 thru 1200. You can also use the cursor keys to move the cursor to the Step Rate field and manually enter a value with the numerical keypad on the CP-100. If you set the step rate to zero, you can then manually step through the chase with the 'enter' button. Of course at anytime if you have programmed into your chase a step rate and you want to temporarily change it to another value (including zero) then you can do so. Just use the chase speed fader or the numerical keypad.
- The **Xfade %** is simply the Crossfade percentage of the chase. Basically if the Xfade is a 0% your Cues will snap into place and if the Xfade is set to 100% the Cues will crossfade into each other. If you've never used this type of feature before then you should definitely play around with it. Experiment with different Xfade and Step Rate values to see how they interact with each other. It's a very cool feature that you'll end up using a lot.
- Next is the **Mode** field. When you move the cursor to this field, you can then use the +YES and -NO keys to toggle through all the different modes that the chase can be played back in. The modes are:

**Forward**- loops the chase from it's first step through to it's last and then goes back to the first step.  
**i.e.: Step: 1, 2, 3, 4, 1, 2, 3, 4, etc.**

**Backward**- loops the chase from it's last step through to it's first and then goes back to the last step.  
**i.e.: Step: 4, 3, 2, 1, 4, 3, 2, 1, etc.**

**Seesaw**- loops the chase from it's first step through to it's last step and back again.  
**i.e.: 1, 2, 3, 4, 3, 2, 1, etc.**

**Wander**- loops the chase forward a few times then backward a few times. Maybe it'll throw in a Seesaw every now and then.

**i.e.: Yeah right, I'm not even gonna try and explain this one any more than that!**

**Random-** loops the chase in absolutely no order whatsoever. It will simply pick steps at random and play them back accordingly.

**i.e.: 2, 4, 1, 2, 3, 2, 4, 1, 4, 1, 2, 4, 3, 2, 3, etc.**

**Hold-** Plays the Chase once and freezes on the last step.

**Once-** Plays the Chase once and immediately goes to Blackout. (Neat for those drum rolls at the end of the song and then blackout).

**2) Use the cursor keys to move the cursor to the Chase no. field and enter the number of the Chase that you want to create.**

**3) Press CHASE-RECORD to put the Chase Editor into record mode.**

The "RECORD" LED will start flashing.

**4) Make sure that the "solo" button is lit.**

**5) Press CUE-n-ENTER to enter in the first step of the chase.**

The STEP field will increment by one number.

**6) Repeat step 5 until all of the Cues that you want to be in the Chase are entered.**

**\*NOTE: if you want a step to execute more than 1 Cue simply press the SOLO button to turn its LED off and repeat STEP 5. In the Cue field you'll see the number in parentheses increment with each entry that you make with the SOLO button off. When you're ready to go onto the next Step simply press the SOLO button again to turn its LED back on. When the Chase is replayed all of the Cues that were entered in that particular Step will be played at once.**

**7) Use the CHASE SPEED fader to give the Chase a Step Rate. If you set the speed rate to zero, you'll be able to manually step through the chase.**

**8) Use the XFADE TIME fader to set the Xfade percentage.**

**9) Move the cursor to the MODE field and use the +YES/-NO keys to select the playback mode for this chase.**

**10) Press STORE-CHASE-#-ENTER to save the chase.**

**11) Press CHASE-#-ENTER to see the Chase happen. If the chase was recorded using a zero rate then tap the 'enter' key to move to the next chase step.**

**Voila! You've made a Chase.**

# ***MACROS***

## Storing Macros.

**\*NOTE: Before we jump into this go into the Miscellany menu (press: MENU-F4) and set the “Record Time:” to NO. This will disable real-time recording of Macros and allow us to set the exact times that we want events to change.**

### **1) Press MACRO-ENTER to call up the Macro Editor Display**

```
MACRO EDITOR:      Macro no: 1
F1 Go to begin/end Name: _
                   Mode: hold   TB: 10
1> 0:00:00.0   00:00.0
```

OK, now you're looking at a bunch of stuff that you shouldn't have a clue about. If you do then I'm a little frightened for you. Perhaps you should get out more often.

Basically the Macro Editor is broken up into several fields very similar to the Chase Editor.

- The first time that you make a Macro the **Marco No.** will default to 1.
- The **Name** field is there for you to give the Macro a cute name.
- The **Mode** field works exactly as it does in the Chase Editor except here you have some different options.

**HOLD-** steps through all of the events in the Macro and then Holds indefinitely on the last event or step.

**ONCE-** steps through all of the events in the Macro once and then blacks out.

**REPEAT-** continuously repeats the steps in the Macro from first to last over and over.

**STEP-** waits for you to press the ENTER button before moving onto the next event in the Macro and then ends with the last event.

**STEP RPT-** waits for you to press the ENTER button before moving onto the next event in the Macro and then loops back to the first event.

- **TB** is the TIMEBASE. This refers to the way the timecode in the Macro Editor is displayed. The timecode is displayed in SMPTE format to enable you to sync the event changes in a Macro to the event changes in another SMPTE device. **The CP-100 does not accept or transmit SMPTE timecode.** It's not normally our policy to pass the buck when it comes to explaining things but SMPTE is a completely different business and we're not in it! So...if you know how to use SMPTE then you know what TIMEBASE is all about. If you don't then I don't suggest that you start trying to learn it here.
- Next you have 2 time displays. The one on the left ( 1> 0:00:000.0) is the “absolute time” display. This will show you the total time that your Macro is going to take to finish. The one on the right is the “hold time” display. This is where you enter in the length of time that you want the individual steps to run for.

**2) Press MACRO-RECORD to place the Editor in record mode.**

The RECORD button LED will start flashing. Make sure that the SOLO button is lit as well.

**3) Press CUE (or CHASE)-ENTER**

The Time display will increment from step 1 to 3 automatically. The reason for this is that the Macro editor automatically adds in a “Clear Cue” step to clear the Cue Editor of any extra information that would screw up the playback of your Macro.

**4) Repeat step 3 until everything that you want to be played back is entered.**

The Timecode display will show all zeros in it. We’re going to go back in and edit them in a moment.

**5) Press the RECORD button to stop the record mode.**

The RECORD Button LED will shut off

**6) Press F1 to go back to the beginning step of the Macro**

The first step will be a “Clear Cue” command.

**7) Use the v cursor key to toggle to the second step of the Macro**

**8) Use the < cursor key to key down to the Hold Time display (the one on the right) and enter in the amount of Hours, minutes, seconds, etc. that you want this particular step to run for and press ENTER.**

**9) Use the v cursor key to step to the fourth step of the Macro (note that the third was that automatic “Clear Cue” command)**

The “Absolute Time” display will increment as you enter in the times of the steps.

**10) Repeat steps 7 thru 9 until you have entered times for all of your steps.**

**11) Use the > cursor key to move the cursor to the MODE field and then use the -NO/+YES keys to choose the mode that you want the Macro to run in.**

**12) Press STORE-MACRO-#-ENTER to save the Macro.**

**13) Press MACRO-#-ENTER to see it happen.**

**You are now the proud owner of your very first Macro!**

# **DIRECT ACCESS**

# WANNA PROGRAM FASTER?

## HOW TO DIRECTLY ACCESS FEATURES OF YOUR LIGHTS

The CP-100 supports some direct access functions for your moving lights. Features such as color and gobo can be directly accessed via the Color and Gobo buttons. The trick with these buttons and their commands is that you really have to know your fixtures pretty well. The direct access of colors and gobos is achieved by calling up its number.

If you're using a Cyberlight you should have the ability to choose from 7 colors plus white. The stock position for the red dichro is position 7 in the color wheel. So if you want to immediately call up red all you have to do is press **COLOR-7-ENTER**. There's your red!

Color and Gobo access is applied to whichever individual fixture or fixture group was accessed last. So if all of your Cyberlights are in Fixture Group 1 and you want to make them all red you would access Group 1 first and then press **COLOR-7-ENTER**.

Likewise, the direct access of Gobos works in the same manner.

So the next question is what to do when a fixture has more than one color or gobo wheel. We'll simply tell the console that. Press **COLOR-2-@-7-ENTER**.

**See the Command Set of the manual for more information on:  
EDITING IN THE CUE EDITOR**

# HOTKEYS

# HOTKEYS

It's no secret that some of the commands on this console require more than just a few button presses. The answer to this is the HOTKEY. These fun little devices allow you to program a series of button presses onto one of the keys of an external keyboard. Here is how you make 'em!

**1) Press: MENU to get to the Main Menu display.**

```
CP-100 MAIN MENU                               4:59pm
F1 Storage                                     F4 Miscellany
F2 Hotkeys                                    F5 MIDI
F3 Clock setting
```

**2) Press: F2 to access the Hotkey Editor**

```
HOTKEY EDITOR:      Key: Alt+A
F1 Delete          Name: _
```

**3) On The Keyboard Press: the ALT key and any other letter or number to select the appropriate Hotkey to be programmed**

**4) Press: RECORD to start recording the button presses**

**NOTE: the RECORD button's LED will start rapid flashing and the display will read \*\*\*RECORDING\*\*\***

**5) Press: the command that you want to record on this Hotkey**

**6) Press: RECORD to stop the recording process**

**7) Press: the V cursor key to move the cursor to the "Name" field.**

Use the keyboard to type in a name for this particular Hotkey and you're done!

Now every time that you press the ALT key with the other key the CP-100 will automatically execute that command. This becomes particularly handy when editing a pre-existing show. Re-storing a ton of Cues becomes a real hassle when you've got to press STORE-CUE-ENTER over and over and over again. Now you could just hit ALT+S and the command happens automatically.

The next step is to tackle number specific commands. These are commands that require you to input a specific number.

Creating a Hotkey that simply adds a specific Cue to a specific Submaster is pretty useless unless you can specify the Cue and Submaster numbers every time. Well, **we've got that covered.**

Let's say that you want to create a Hotkey command that will allow you to add Cues to Submasters. Follow all the steps above as normal. When you get to step 5 you would press the command: **ADD-CUE-UNDO-TO-SUBMASTER-UNDO**. The "undo" becomes a sort of pause prompt when you replay this Hotkey. When you press the Hotkey the first part of the command will automatically appear on the display.

### **ADD-CUE**

Then you type the number of the Cue and press ENTER. At this time the second part of the command will appear.

### **ADD-CUE-n-TO-SUBMASTER**

Then you type the number of the Submaster and press ENTER. The display will quickly read DONE. You've just created a **multi-part Hotkey**.

**COPY AND MOVE**

## **COPYING AND MOVING THINGS** *the in-depth explanation*

Once you've created all these wonderful Cues, Chases, Macros, Submasters, Dimmer Submasters, etc. you may find that you want to move them to different places within the console's memory or copy them for multiple use during your show. Copying and Moving can be accomplished through many different commands, all of which can be found within the **COMMAND SET** section of this manual.

*(Is that the easiest in-depth explanation you've seen people.....come on lighten up!)*

# THRESHOLDS

# START AND END THRESHOLDS EXPLAINED

## WHAT ARE THEY AND HOW DO THEY WORK?

When you're in a Fixture or Group Features display you are able to access the Start and End Thresholds by using the up & down cursor keys. You will notice that Start Thresholds have a default value of 0% and End Thresholds have a default value of 100%.

So just what the hell are they? **A Threshold is the percentage of time within a Cue's crossfade that each individual feature will change.**

i.e.: You have 2 cues. The first is a white spot at one end of the room. The second is a 10 second crossfade into a blue star at the other end of the room. With the Thresholds set at the default values you are going to see all of the features slowly change. The color wheel will slowly scroll through all the colors until it gets to blue and the gobo wheel will scroll through all of it's gobos until it gets to the star.

What we really want to see is an immediate color and gobo change and then watch the beam slowly move across the room. So we want the color and gobo channels to "end" right away, but the pan & tilt channels should crossfade throughout the full 10 seconds. All that we have to do is call up the Cue that we want to change, use the cursor keys to go to the "End Threshold" display of the fixture, and, using the rotaries, change the color and gobo features to 0%. If they are told to "End" at 0% then that means that they will finish making their changes right away. After all is said and done, you have to re-store that Cue so the changes that you just made are recorded for playback.

When we playback these 2 Cues the first becomes our white spot at the one end of the room. Then, when we play the second Cue the fixture's color and gobo snap immediately into a blue star and then start to slowly move across the room.

Start and End Thresholds are terrific ways to create multi-part Cues and lend themselves to some very unique programming. We admit that they can be a little tricky to figure out at first but once you've got the hang of it you'll be pulling off some pretty complex maneuvers in a fraction of the time of what it normally would take to prepare. The key is to play around with them. Don't try to tackle some wild programming maneuver that you saw on a Pink Floyd video. You'll more than likely become rather postal and start waving Uzis around fast food restaurants. Take it slow by trying out some basic color and gobo changes like the one described above. Once you've got it down you'll be unstoppable!

# **STAGE FOCUSING**

# STAGE FOCUS FOR THE TOURING TYPES

## WHAT IS IT?

Stage Focus, sometimes referred to as a Global Focus, is the combination of Cartesian Coordinates that comprise the geometry of your venues platform.

OK, this time in English! **It's the 4 corners of your stage.**

Basically, you use Stage Focus to set the movement limitations of your moving lights. I realize that limiting the movement of a moving light is usually the last thing that you'd want to do but Stage Focus is also what we call "Cue specific". That means that you have to tell individual Cues to read the Stage Focus limitations.

## WHY IT'S USEFUL

The main purpose for Stage Focus is to globally edit all of your preset focus'.

i.e.: Let's say that you're programming for a tour. This particular tour is scheduled to be in all different size venues with a wide variety of ceiling heights. Now, we're gonna give you a choice here. You can either spend every afternoon of the tour reprogramming all 75 of the presets that you have for all 200 moving lights in your rig **OR** you could show every moving light the 4 corners of your stage just once and let the CP-100 do all the bloody work for you! The choice is yours. Personally, I like getting the chance to make it to catering before the show. But hey, that's just me. I get hungry sometimes.

## HOW IT WORKS

### **1) Press: STAGE FOCUS - ENTER**

This brings up the "Stage Focus Display".

```
STAGE FOCUS          Fixture no.: 11
Name:                Type: Silverado
P00=1731  T00=2932  P10=8923  T10=2811
P01=1833  T01=7746  P11=8210  T11=7615
```

Now here we see a bunch of stupid looking letter/number combinations. These are known as Cartesian Coordinates. The "P"s and "T"s stand for Pan and Tilt. The numbers represent the stage as if it were split up into four sections.

- 1: Upstage Right = 00
- 2: Upstage Left = 10
- 3: Downstage Right = 01

4: Downstage Left = 11

Each of the Pan and Tilt Cartesian Coordinates in the display correlate to the respective rotaries.

i.e.: P00 = rotary 1, T00 = rotary 3, P01 = rotary 2, T01 = rotary 4, etc., etc.

Basically, your rotaries are laid out to be the four corners of your stage:

Rotaries 1 & 3 = Upstage Right

Rotaries 2 & 4 = Downstage Right

Rotaries 5 & 7 = Upstage Left

Rotaries 6 & 8 = Downstage Left

So, now that we've got the Pan & Tilt split up into these four sections we're ready to set our Stage Focus. Notice that the cursor is in the "Fixture no.:\_" field. You can use the "-NO" & "+YES" keys to scroll through the different fixtures in your show. This will allow you access to their Pan & Tilt channels automatically.

Let's start with your first fixture.

## **2) Move rotaries 1 & 3.**

The fixture automatically goes into HILITE mode with it's iris down for accurate positioning. It will also move to it's furthest point down & left.

## **3) Move the light beam into position at the upstage right corner of the stage.**

NOTE: when you set the Stage Focus only work with one section of the stage at a time.

## **4) Move rotaries 5 & 7 and position the beam at the upstage left corner.**

## **5) Move rotaries 2 & 4 and position the beam at the downstage right corner.**

## **5) Move rotaries 6 & 8 and position the beam at the downstage left corner.**

You've just set the Stage Focus for your first fixture!

## **6) Use the "-NO" & "+YES" keys to call up your next fixture.**

## **7) Repeat steps 2 through 6 for all of the fixtures in your show.**

## **8) Press CLEAR-ALL-HILITE to turn off the automatic Hi-Lite function**

Once you've shown all of your fixtures the 4 corners of your stage you are then able to add that Stage Focus into Cues as you make them.

Let's say, for instance, that you're working on Cue 1. This particular Cue is all of your lights in Preset 1 (downstage center). If this particular position needs to be exactly precise every night of the tour

then all you have to do is add the Stage Focus to the Cue after you have stored it.

**1) Press: ADD - STAGE FOCUS - ENTER**

**2) Press: STORE - CUE- # - ENTER**

Now whenever the Stage Focus is changed that particular Cue will change with it.

**WORK THAT DISK  
DRIVE BABY**

Now let's discuss our handy little disk drive on the back panel of the console. This will allow us to do several things. First we'll be able to save our show, second we can load a new show, third we can load in a software upgrade, and fourth we can save the current software that's in the console's memory.

## TO SAVE YOUR SHOW

- 1) **Insert a blank, formatted IBM compatible, 3.5" diskette into the drive.**
- 2) **Press the MENU button to call up the "Main Menu" display**
- 3) **Press F1 to access the "Storage" display**

This display is broken up into 3 sections:

- **Objects:** The actual fixtures in the show
- **Software:** The current version of the operating system
- **Memory:** The display of memory usage in percentages

### 4) **Press F1 for Objects**

This will call up the "Objects" display and give you 3 more choices:

- **F1 SAVE ALL:** saves the entire contents of the show fixtures, cues, chases, presets, feature presets, etc.
- **F2 SAVE FIXTURES:** saves only the fixture information.
- **F2 SAVE SHOW:** saves only the show information.
- **F4 LOAD ALL:** loads the entire contents of the show
- **F5 LOAD FIXTURES:** loads just the fixtures
- **F6 LOAD SHOW:** loads just the show information

### 5) **Press F1 to save the entire contents of the show.**

Likewise, you can press the other function keys to perform their various operations.

*(Okay Listen up people! For years this author and his friends at Elektralite went out on the road and had to contend with expensive little PCMCIA cards that lots of lighting console manufacturers insist on using. These cards are very expensive and difficult to find in your local high street electronics shop! When we sat down to design the CP-100, the number one feature that this console would have was the disk drive. We didn't care how much or how difficult it would be to do the software (hardware is cheap) we were going to have a disk drive on the CP-100. Now then, don't disappoint us with all our hard work! As disks are dirt cheap, there are absolutely no excuses as to not backing up all your show and fixture information lots and lots of times. Make us feel proud of you and back it up; not once, not twice, but as many times as makes you feel secure. Thank you!).*

## **TO UPGRADE YOUR SOFTWARE**

Software upgrades are available off the Elektralite website at no charge for operating system version 1 ([WWW.G1LTD.COM/ENTER.HTM](http://WWW.G1LTD.COM/ENTER.HTM)) or via email (contact Group One Ltd. directly). If you want to upgrade to Operating system Version 2, 3 or 4 software then contact you local distributor. Versions 2, 3 and 4 all carry a price but they are **not** expensive.

For your knowledge and information:

Version 2 Operating System adds a monitor output and all the necessary software to run it.

Version 3 Operating System: just go to page 17: “making a fixture that’s not there”, for a full explanation of what Version 3 can do.

Version 4 Operating System adds an effects generator/engine for automatic insertion of circles, ballyhoos etc.

Also Version 3 & 4 are capable of controlling the CP-100 expansion panel. The expansion panel adds 12 x dimmer submasters and 12 x regular submasters. The expansion panel can be added to the CP-100 at anytime and is an integrated unit not some separate piece ‘on the side.

Before installing any software upgrade into the CP-100 console it is strongly recommended that you make a copy of the current software that you are running. Electronic forms of communication such as the world wide web, and email can be susceptible to corruption during a transfer. If you load in a software upgrade that has been corrupted you can at least revert back to the old version and still run your show. Don’t jump down our throats about this one. All lighting consoles that accept disk drive software upgrades are susceptible no matter how much money you spend on them. We’re just being blatantly honest about it!

- 1) Insert a blank diskette into the disk drive on the back panel of the console.**
- 2) Press “MENU” to call up the “Main Menu” display**
- 3) Press F1 for the “STORAGE” display**
- 4) Press F2 for the “SOFTWARE” display**
- 5) Press F1 to save the current version of the software.**
- 6) When finished, take the disk out of the drive and label it.**
- 7) Insert the diskette that contains the software upgrade into the disk drive.**
- 8) Press F2 to load the software upgrade.**

The changes to the software will not take effect until you power down and re-start the console. A warning prompt with this information will be displayed upon completion of the software loading.

## **THE SECONDARY METHOD OF SOFTWARE UPGRADE**

There is a secondary method in which you can upgrade the software. However great care has to be taken when utilizing this ‘backdoor’ method. Please go to the section towards the end of this manual called “Forcing software into a CP-100”.

# DMX - Input

The CP-100 has a single DMX input port which maybe driven by the output of another DMX controller. There are three different ways that the DMX input can operate.

- DMX input channels maybe simply passed through as DMX output channels. (Pass Thru)
- DMX input channel values can be captured and turned into cues. (Called ‘snap-shot’)
- DMX input can be used to trigger the playing of cues, chases, macros or hot keys in the CP-100. (Triggers from Main Menu F5).

### **DMX input as a simply pass thru.**

The DMX input is passed through to the DMX output by using a special fixture type found in the CP-100’s library. The special fixture is named “DMX Pass Thru”. This fixture has four attributes that must be assigned during the set up of the fixture. The four attributes are DMX port, Base channel, Input channel and Channel count. DMX port and base channel are the same as for a normal fixture set up and they refer to the output side of life. In other words, you need to tell the board which DMX channel is the first channel for the output fixture and also which of the DMX ports (one or two) you have the output fixture connected to. Then, you need to set the two new attributes which refer to the input side of life. The starting input channel and the total number of channels respectively of the fixture. That’s all there is to it! The DMX input for those channels will now be automatically and continuously coupled through to your chosen output channels. Of course, you can ‘link’ different DMX input channels to output channels.

There is no need to add the DMX Pass Thru fixture to cues because this fixture has no user controllable features. The DMX pass thru fixture is on ‘Auto Pilot’ since its output merely mimics the input.

### **Snap-shot.**

Ever found yourself in the situation where the board running the current show, needs to go do another show and you’re going to have to reprogram another board to do the current show. Think it doesn’t happen? Let me know if it does because I coming to your Utopia! Meanwhile in the real world, the swapping of boards happens all the time. (One scenario goes like this. In comes an LD complete with his own PCMCIA (Smart) card for one of those “other” boards. His show is in the card so he must use ‘that’ board. Enter CP-100 to save the day with Snap-shot. I can give other scenarios, like why ‘leave’ a very expensive “other” lighting board doing an automatic industrial show when you could use it to program the show and then dump it into the CP-100?).

Snap-shot allows the DMX input to be captured and stored in a cue by setting up the CP-100 to have the same set of dimmers and fixtures on the same channels as the input lighting board. Then you must select the dimmers and fixtures to be captured into the Cue Editor. To do this press ‘fixture’ followed by the fixture number or numbers. For dimmers simply press ‘add dimmer’ followed by the dimmer number or numbers. Once the correct set of fixtures and dimmers are selected the ‘copy all feature’ command does the capturing. The CP-100 is also intelligent enough to rescale parameters where necessary and to combine the coarse and fine channels of high-resolution fixtures.

So, for instance, if you want to capture DMX inputs 20 through 27 for later playback on the DMX outputs 20 to 27, you need to have an eight channel fixture to play these channels. The ‘DMX fixture’ entry will work, although it would be better if you used the fixture that matches what you have got. So if it is an Intellabeam working in eight channel mode, you should use that library entry in the CP-100. Then you do the normal set up routine. So for example you may assign the Intellabeam to fixture 21, port one, DMX output base channel 20. Having done the set up you just press the usual command “Fixture 21 enter”. Having selected the fixture, all you do is press “copy all feature enter” and

instantly the CP-100 snap-shots the DMX input. You can now store this information into any cue. Now it would be pretty labor intensive if you had to do it fixture by fixture. It would defeat the whole idea of making life easier. No Margaritas for you in Key West!! So, the CP-100 allows you to select as many fixtures or dimmers as you want. Instead of pressing “Fixture 21 enter” you could press say “Fixture 21 thru 50 enter”.

### **Triggers F5.**

Pressing F5 from the Main Menu accesses the Triggers editor. Cues, chases, macros and hotkeys maybe triggered externally by two methods: A DMX-input signal or a Midi note input.

The trigger editor will display any stored cues, chases, macros and hotkeys. If you have not stored a hotkey or macro, for example, then it will not be displayed in the screen. To set up the trigger is very simple. Let's set up a cue, for example. Using the cursor buttons to the right of the display, move the cursor to the right of the word 'cue' and using the keypad numbers chose the cue you wish to trigger, then press 'enter'. Now using the right arrow cursor button again, move to the right '---'. Now choose which channel you want to trigger the cue; for example 10, then press 'enter'. Move the cursor to the right again, so that you are over the word 'DMX'. DMX is the default setting. Use the -No and +Yes keys to change to a Midi note. If you choose a midi note then the number before the note refers to the Midi note channel. Each *object* (cue, chase, macro or hotkey) can be assigned to a single DMX channel or to a single Midi channel and Midi note number. (You knew those music lessons would be useful one day!!). An *object* can be disconnected from the inputs entirely by setting the channel parameters to zero.

### **Norm or Alt.**

There are two modes of operating the triggers (DMX or Midi) Normal or Alternative. No, this is not reference to different types of Rock'n'Roll music. Instead it is for two different ways we let the input trigger *objects*.

### **DMX NORM Mode.**

Let's say you have a 12 channel simple fader board triggering as follows:

- Fader 1 linked to cue 1
- Fader 2 linked to cue 2
- Fader 3 linked to chase 1
- Fader 4 linked to Macro 1
- Fader 5 linked to Hot key 'Alt X'.

In the **Norm** mode whenever the fader moves above zero the *object* is **activated**. Whenever the fader returns to zero the *object* is **deactivated**. So moving fader one up **activates** cue 1. If a cross fade is stored in the cue then the time is activated. Moving the fader down makes the cue crossfade out (if it has an 'out' time fade) and in this way the cue is **deactivated**. Because cue 1 is now **deactivated**, you can move cue 2 up and **activate** it. You're now wondering why we have underlined and made bold the words **activate** and **deactivate**. Well the reason is this. Just because a cue is not active doesn't mean that you have darkness on stage. Let put it another way. If your fixtures were turned on and pointing to stage left before you **activated** cue1, then after you pull fader 1 down after you have **activated** it, the fixtures are going back to the stage left position.

### **DMX ALT Mode.**

Here we going to save you the bother of remembering to keep that DMX-input channel activate ( in other words, using our example, keeping the fader up!) and outputting a value all the time you want your *objects* to be working! With ALT mode, as long as the *object* receives a dmx signal above zero, then the *object* will be active. Moving that channel back down to zero, will have no effect on the

*object*. In effect, it is latched on. If you want to turn it off, then simply move that channel's value above zero again. The important word here is 'again'. In our example if we had fader 1 linked to cue 1, then the procedure would be as follows:

Move fader 1 above zero activates cue 1.

Move fader 1 back to zero has no effect.

Move fader 1 above zero again deactivates cue 1.

Now we realize a lot of you are sitting there and saying I don't get it! What's the purpose of this? I'll never use ALT mode.

Well, if instead of faders on a manual controller, you think of using an automatic dmx input signal from a 'master controller' (a show controller) then the ALT mode is a real asset. Here, all you would do, is send a flash signal to turn on cue 1. Then later in the show, you would send it a second flash signal to turn it off. There would be no need to keep the signal latched on to keep the cue active. Kinda Neato!!!

### **Midi NORM mode.**

If the *object* is assigned to a midi note, it is activated whenever a Note On is received by the CP-100. With midi, usually it is the case that, the midi device will normally keep sending the Note On until you tell it to turn off. (Just like the fader example with DMX triggers, if the fader is up the cue is active if you want to deactivate it pull the fader down). To deactivate a Midi triggered cue, you must send a signal to turn the Note Off. So don't forget to send the Note Off command, otherwise you are going to just piling *objects* on top of one another! It not a pretty sight when it goes wrong!

### **Midi ALT mode.**

In the Alternative mode the CP-100 makes life even easier! You don't have to remember to send the Note Off command! The Midi Note On toggles the *object* on and off. Midi Note Off signals are ignored.

### **Midi Note names and numbers.**

If you studied any musical instrument at school you know the principle of notes and octaves. Remember Middle C?! Well the only problem with that system is that you have to remember the note and the octave. So you have to write down things like "octave 2, D sharp". There is an alternative to this and that is Midi numbers. The numbers system is just a map crossover for the Midi note names. The Midi note that corresponds to our "octave 2, D sharp", would be number 15. At the back of the manual is a Midi names and numbers map to help you.

### **Midi Channels.**

Midi channels are just like DMX ports. Each DMX port can control 512 channels. If you need more than 512 channels of DMX, you need a second DMX port.

With Midi the maximum number of notes (which is the equivalent of DMX channels) is 127. So there are 127 notes per Midi 'port'. The correct terminology for a Midi 'port' is called a Midi **channel**.

There is also a limit to the number of Midi channels that you can have and that number is 16.

So in summary available to you using Midi is 16 channels each channel having 127 notes.

### **Linking CP-100s.**

Linking CP-100s (Yes, it has been done!!) is done using the Midi In and out ports on the back of the board. The Midi output port echoes everything received on the Midi input port. This is a software "THRU" function, so there is at least a one byte time delay.

**Summary of Triggers.**

In general, whenever a trigger (DMX-input or Midi Note On) is received, the CP-100 scans all its *objects* (cues, chases, macros and hotkeys) and activates any that have matching channel and note. Cues are activated by crossfading them in, at their programmed crossfade time. Chases and macros are simply started at the beginning. Hotkeys are executed, unless one is already in progress. When the trigger is released (in other words, the DMX input is returned to zero or Midi Note Off), cues begin to crossfade out. Chases and macros are stopped while hotkeys remain in the same state. If a cue hasn't finished crossfading out when a second trigger is received, the crossfade turns around and goes forward again, rather than starting at the beginning.

# **THE COMMAND SET**

## Global Deletion

<b>All Delete</b>	deletes all objects in non-volatile memory.
<b>Clear All</b>	clears the cue editor, chase editor and macro editor
<b>Delete All</b>	deletes all show objects in non-volatile memory.

## Copying, Deleting and Moving Fixtures

<b>Copy Dimmer n To n ...</b>	makes multiple copies of a dimmer
<b>Copy Dimmer n ... To n</b>	copies multiple dimmers to a contiguous range
<b>Copy Fixture n To n ...</b>	makes multiple copies of a fixture
<b>Copy Fixture n ... To n</b>	copies multiple fixtures to a contiguous range
<b>Delete All Dimmer</b>	deletes all dimmers and dimmer groups
<b>Delete All Fixture</b>	deletes all fixtures (except dimmers) and fixture groups
<b>Delete Dimmer n ...</b>	deletes specific dimmers
<b>Delete Fixture n ...</b>	deletes specific fixtures
<b>Move Dimmer n ... To n</b>	moves multiple dimmers to a contiguous range
<b>Move Fixture n ... To n</b>	moves multiple fixtures to a contiguous range

## Grouping Fixtures

<b>Add All Fixture [To] Group</b>	adds all like-type fixtures to current group
<b>Add All Fixture [To] Group n</b>	adds all like-type fixtures to specific existing group
<b>Add Dimmer n ... [To] Group n</b>	adds dimmers to specific group
<b>Add Fixture n ... [To] Group</b>	adds fixtures to current group
<b>Add Fixture n ... [To] Group n</b>	adds fixtures to specific group
<b>Clear Dimmer n ... (from) Group n</b>	removes dimmers from specific group
<b>Clear Fixture n ... (from) Group</b>	removes fixtures from current group
<b>Clear Fixture n ... (from) Group n</b>	removes fixtures from specific group
<b>Copy Dimmer Group n To n ...</b>	makes multiple copies of a dimmer group
<b>Copy Dimmer Group n ... To n</b>	copies multiple dimmer groups to a contiguous range
<b>Copy Fixture Group n To n ...</b>	makes multiple copies of a fixture group
<b>Copy Fixture Group n ... To n</b>	copies multiple fixture groups to a contiguous range
<b>Delete All Dimmer Group</b>	deletes all dimmer groups
<b>Delete All Fixture Group</b>	deletes all fixture groups
<b>Delete All Group</b>	deletes all dimmer and fixture groups
<b>Delete Dimmer Group n ...</b>	deletes specific dimmer groups
<b>Delete Fixture Group n ...</b>	deletes specific fixture groups
<b>Move Dimmer Group n ... To n</b>	moves multiple dimmer groups to a contiguous range
<b>Move Fixture Group n ... To n</b>	moves multiple fixture groups to a contiguous range

## Selecting Displays

<b>Add Dimmer</b>	selects ADD DIMMER display
<b>Add Fixture</b>	selects ADD FIXTURE display
<b>Chase</b>	selects CHASE EDITOR display
<b>Cue</b>	selects CUE EDITOR display
<b>Dimmer</b>	selects DIMMER VALUES display
<b>Dimmer Group</b>	selects DIMMER GROUPS display
<b>Dimmer Group n</b>	selects DIMMER GROUPS display for specific group
<b>Dimmer Submaster</b>	selects DIMMER SUBMASTERS display for fader 1
<b>Dimmer Submaster p.f</b>	selects DIMMER SUBMASTERS display for specific fader
<b>Edit</b>	selects CUE EDITOR display, completes crossfade
<b>Edit Dimmer</b>	selects EDIT DIMMER display
<b>Edit Dimmer n</b>	selects dimmer, selects EDIT DIMMER display
<b>Edit Fixture</b>	selects EDIT FIXTURE display
<b>Edit Fixture n</b>	selects fixture, selects EDIT FIXTURE display
<b>Feature Preset</b>	selects FEATURE PRESETS display
<b>Feature Preset n</b>	selects FEATURE PRESETS display for specific preset
<b>Fixture</b>	selects FIXTURE FEATURES or GROUP FEATURES display for current fixtures
<b>Fixture n ...</b>	selects FIXTURE FEATURES or GROUP FEATURES display for specific fixtures
<b>Fixture Group</b>	selects FIXTURE GROUPS display
<b>Fixture Group n</b>	selects FIXTURE GROUPS display for specific group
<b>Group</b>	selects FIXTURE FEATURES or GROUP FEATURES display for fixtures in last mentioned group
<b>Group n ...</b>	selects FIXTURE FEATURES or GROUP FEATURES display for fixtures in specific groups
<b>Macro</b>	selects MACRO EDITOR display
<b>Preset</b>	selects PRESET VIEWER display
<b>Stage Focus</b>	selects STAGE FOCUS display
<b>Stage Focus [Fixture] n</b>	selects fixtures, selects STAGE FOCUS display
<b>Submaster</b>	selects SUBMASTERS display for fader 1
<b>Submaster p.f</b>	selects SUBMASTERS display for specific fader

## Highlighting Fixtures

<b>Clear All Hilite</b>	un-highlights all fixtures
<b>Clear Hilite (from) All [Fixture]</b>	un-highlights all fixtures
<b>Clear Hilite (from) [Fixture]</b>	un-highlights currently selected fixtures
<b>Clear Hilite (from) [Fixture] n ...</b>	selects fixtures, un-highlights them
<b>Clear Hilite (from) [Fixture] Group</b>	selects fixtures in current group, un-highlights them
<b>Clear Hilite (from) [Fixture] Group n</b>	selects fixtures in groups, un-highlights them
<b>Hilite [Fixture]</b>	highlights currently selected fixtures
<b>Hilite [Fixture] n ...</b>	selects fixtures, highlights
<b>Hilite [Fixture] Group</b>	selects fixtures in current group, highlights them
<b>Hilite [Fixture] Group n ...</b>	selects fixtures in groups, highlights them

## Loading the Cue Editor

<b>Cue n.n ...</b>	loads or merges specific cues without crossfade
<b>Cue n.n ... Go</b>	loads or merges specific cues
<b>Dimmer p.f ...</b>	loads or merges dimmer fader assignments
<b>Edit Back</b>	loads previous cue without crossfade
<b>Edit Cue</b>	reloads current cue without crossfade
<b>Edit Cue n.n ...</b>	loads specific cues without crossfade
<b>Edit Go</b>	loads next cue without crossfade
<b>Edit Preset</b>	loads current preset as cue
<b>Edit Preset n ...</b>	loads specific presets as cue
<b>Preset n ...</b>	loads or merges specific presets as cue

## Editing in the Cue Editor

<b>Add All Dimmer Submaster</b>	merges dimmer submaster outputs into cue editor
<b>Add All Feature</b>	adds all features to the selected fixtures
<b>Add Dimmer n ...</b>	adds specific dimmers at 100%
<b>Add Dimmer n ... @ n</b>	adds specific dimmers at specific level
<b>Add Dimmer n ... @ Full</b>	adds specific dimmers at 100%
<b>Add Dimmer Group n ...</b>	adds specific dimmer groups at 100%
<b>Add Dimmer Group n ... @ n</b>	adds specific dimmer groups at specific level
<b>Add Dimmer Group n ... @ Full</b>	adds specific dimmer groups at 100%
<b>Add Dimmer Submaster</b>	merges all dimmer submaster outputs into cue editor
<b>Add Dimmer Submaster p.f ...</b>	merges specific dimmer submaster outputs into cue editor
<b>Add Feature n ...</b>	adds specific features to the selected fixtures
<b>Add Fixture n ...</b>	selects specific fixtures in addition to current ones
<b>Add Group</b>	selects current group in addition to current fixtures
<b>Add Group n ...</b>	selects specific groups in addition to current fixtures
<b>Add Rotary n ...</b>	adds specific features of current fixture
<b>All Dimmer @ n</b>	sets all dimmers to specific level
<b>All Dimmer @ Full</b>	sets all dimmers to 100%

<b>Clear All Dimmer</b>	clears all dimmers
<b>Clear All Feature</b>	clears all features of current fixture
<b>Clear All Feature Except n ...</b>	clears all but specific features of current fixture
<b>Clear All Fixture</b>	clears all fixture features
<b>Clear All Rotary</b>	clears features connected to specific rotaries
<b>Clear All Rotary Except n ...</b>	clears features connected to all but specific rotaries
<b>Clear Cue</b>	clears cue editor
<b>Clear Dimmer n ...</b>	clears specific dimmers
<b>Clear Dimmer Group n ...</b>	clears specific dimmer groups
<b>Clear Feature n ...</b>	clears specific features of current fixture
<b>Clear Fixture</b>	clears all features of current fixture
<b>Clear Fixture n ...</b>	clears all features of specific fixture
<b>Clear Fixture Group n ...</b>	clears all features of specific group of fixtures
<b>Clear Rotary n ...</b>	clears specific features of current fixture
<b>Color n</b>	sets first color wheel to specific color number
<b>Color n @ n</b>	sets specific color wheel to specific color number
<b>Copy All Feature</b>	captures all features in Cue Editor from DMX input
<b>Copy All Feature [To] Fixture n ...</b>	copies all features of current fixture to specific fixtures
<b>Copy All Feature [To] Group n ...</b>	copies all features of current fixture to specific groups
<b>Copy All Rotary [To] Fixture n ...</b>	copies eight features of current fixture to specific fixtures
<b>Copy All Rotary [To] Group n ...</b>	copies eight features of current fixture to specific groups
<b>Copy Feature n To n ...</b>	copies specific feature to other features within same fixture
<b>Copy Feature n ... [To] Fixture n ...</b>	copies specific features of current fixture to specific fixtures
<b>Copy Feature n ... [To] Group n ...</b>	copies specific features of current fixture to specific groups
<b>Copy Rotary n To n ...</b>	copies specific feature to other features within same fixture
<b>Copy Rotary n ... [To] Fixture n ...</b>	copies specific features of current fixture to specific fixtures
<b>Copy Rotary n ... [To] Group n ...</b>	copies specific features of current fixture to specific groups
<b>Dimmer n ... @ n</b>	sets specific dimmers to specific level
<b>Dimmer n ... @ Full</b>	sets specific dimmers to 100%
<b>Dimmer Group n ... @ n</b>	sets specific dimmer groups to specific level
<b>Dimmer Group n ... @ Full</b>	sets specific dimmer groups to 100%
<b>Feature n ... @ -n</b>	sets specific features to specific value
<b>Gobo n</b>	sets first gobo wheel to specific gobo number
<b>Gobo n @ n</b>	sets specific gobo wheel to specific gobo number
<b>Rotary n ... @ -n</b>	sets specific rotaries to specific value

### Using Presets

<b>Add Dimmer n ... [To] Preset</b>	adds specific dimmer filters to current preset
<b>Add Dimmer n ... [To] Preset n</b>	adds specific dimmer filters to specific preset
<b>Add Dimmer Group n ... [To] Preset</b>	adds filters for specific dimmer groups to current preset

<b>Add Dimmer Group n ... [To] Preset n</b>	adds filters for specific dimmer groups to specific preset
<b>Add Fixture n ... [To] Preset</b>	adds specific fixture filters to current preset
<b>Add Fixture n ... [To] Preset n</b>	adds specific fixture filters to specific preset
<b>Add Fixture Group n ... [To] Preset</b>	adds filters for specific fixture groups to current preset
<b>Add Fixture Group n ... [To] Preset n</b>	adds filters for specific fixture groups to specific preset
<b>Add Preset n ...</b>	adds specific preset numbers
<b>Clear All Dimmer (from) Preset</b>	clears all dimmer filters from current preset
<b>Clear All Dimmer (from) Preset n</b>	clears all dimmer filters from specific preset
<b>Clear All Fixture (from) Preset</b>	clears all fixture filters from current preset
<b>Clear All Fixture (from) Preset n</b>	clears all fixture filters from specific preset
<b>Clear All Preset</b>	clears all preset numbers
<b>Clear All Preset Feature</b>	clears all features from cue that are in all presets
<b>Clear Dimmer n ... (from) Preset</b>	clears specific dimmer filters from current preset
<b>Clear Dimmer n ... (from) Preset n</b>	clears specific dimmer filters from specific preset
<b>Clear Dimmer Group n ... (from) Preset</b>	clears filters for specific dimmer groups from current reset
<b>Clear Dimmer Group n (from) Preset n</b>	clears filters for specific dimmer groups from specific preset
<b>Clear Fixture n ... (from) Preset</b>	clears specific fixture filters from current preset
<b>Clear Fixture n ... (from) Preset n</b>	clears specific fixture filters from specific preset
<b>Clear Fixture Group n ... (from) Preset</b>	clears filters for specific fixture groups from current preset
<b>Clear Fixture Group n ... (from) Preset n</b>	clears filters for specific fixture groups from specific preset
<b>Clear Preset n ...</b>	clears specific preset numbers
<b>Clear Preset n ... Feature</b>	clears all features from cue that are in specific presets
<b>Copy Dimmer n ... (from) Preset</b>	copies specific dimmers from current preset into cue editor
<b>Copy Dimmer n ... (from) Preset n</b>	copies specific dimmers from specific preset into cue editor
<b>Copy Dimmer Group n ... (from) Preset</b>	copies dimmers in specific groups from current preset
<b>Copy Dimmer Group n ... (from) Preset n</b>	copies dimmers in specific groups from specific preset
<b>Copy Fixture n ... (from) Preset</b>	selects specific fixtures, copies them from current preset
<b>Copy Fixture n ... (from) Preset n</b>	selects specific fixtures, copies them from specific preset
<b>Copy Fixture Group n ... (from) Preset</b>	selects fixtures in specific groups, copies them from current preset
<b>Copy Fixture Group n ... (from) Preset n</b>	selects fixtures in specific groups, copies them from specific preset
<b>Copy Preset</b>	merges the current preset into the cue editor
<b>Copy Preset n ...</b>	merges specific presets into the cue editor

## **Stage Focus**

<b>Add All Stage Focus</b>	turns on Stage Focus for all fixtures in the cue editor
<b>Add Stage Focus [To] All [Fixture]</b>	turns on Stage Focus for all fixtures in the cue editor
<b>Add Stage Focus [To] [Fixture]</b>	turns on Stage Focus for the selected fixtures
<b>Add Stage Focus [To] [Fixture] n ...</b>	selects fixtures, turns on Stage Focus

<b>Add Stage Focus [To] [Fixture] Group</b>	selects fixtures in current group, turns on Stage Focus for them
<b>Add Stage Focus[To] [Fixture] Group n ...</b>	selects fixtures in specific groups, turns on Stage Focus for them
<b>Clear All Stage Focus</b>	turns off Stage Focus for all fixtures in the cue editor
<b>Clear Stage Focus (from) All [Fixture]</b>	turns off Stage Focus for all fixtures in the cue editor
<b>Clear Stage Focus (from) [Fixture]</b>	turns off Stage Focus for the selected fixtures
<b>Clear Stage Focus (from) [Fixture] n ...</b>	selects fixtures, turns off Stage Focus for them
<b>Clear Stage Focus(from) [Fixture] Group</b>	selects fixtures in current group, turns off Stage Focus for them
<b>Clear Stage Focus(from) [Fixture] Group n ...</b>	selects fixtures in specific groups, turns off Stage Focus for them

### Feature Presets

<b>Add Feature Preset n ... [To] [Fixture]</b>	adds specific feature presets to selected fixtures
<b>Add Feature Preset n ..[To] [Fixture] n. .</b>	selects fixtures, adds specific feature presets to them
<b>Add Feature Preset n ...[To] [Fixture] Group</b>	selects fixtures in current group, adds specific feature presets to them
<b>Add Feature Preset n ...[To] [Fixture] Group n ...</b>	selects fixtures in specific groups, adds specific feature presets to them
<b>Clear All Feature Preset(from) [Fixture]</b>	removes all feature presets from selected fixtures
<b>Clear All Feature Preset(from) [Fixture] n ...</b>	selects fixtures, removes all feature presets from them
<b>Clear All Feature Preset(from) [Fixture] Group</b>	selects fixtures in current group, removes all Feature presets from them
<b>Clear All Feature Preset(from) [Fixture] Group n ..</b>	selects fixtures in specific groups, removes all feature presets from them
<b>Clear Feature Preset n ...(from) [Fixture]</b>	removes specific feature presets from selected fixtures
<b>Clear Feature Preset n ...(from) Fixture n ...</b>	selects fixtures, removes specific feature presets from them
<b>Clear Feature Preset n ...(from) [Fixture] Group</b>	selects fixtures in current group, removes specific feature presets from them
<b>Clear Feature Preset n ...(from) [Fixture] Group n ...</b>	selects fixtures in specific groups, removes specific feature presets from them
<b>Copy Feature Preset n To n ...</b>	makes multiple copies of a feature preset
<b>Copy Feature Preset n ... To n</b>	copies multiple feature presets to a contiguous range
<b>Copy Feature Preset n ... [To] Fixture</b>	copies values from specific feature presets to selected fixtures
<b>Copy Feature Preset n ... [To] Fixture n ...</b>	selects specific fixtures, copies values from Specific feature presets to them
<b>Copy Feature Preset n ...[To] [Fixture] Group n</b>	selects specific fixture groups, copies values from specific feature presets to them
<b>Delete All Feature Preset</b>	deletes all feature presets

<b>Delete Feature Preset n ...</b>	deletes specific feature presets
<b>Move Feature Preset n ... To n</b>	moves multiple feature presets to a contiguous range
<b>Store Feature Preset n</b>	stores current fixture's features as a feature preset

### Copying, Deleting and Moving Cues

<b>Copy Cue n.n To n.n ...</b>	makes multiple copies of a cue
<b>Copy Cue n.n ... To n.n</b>	copies multiple cues to a contiguous range
<b>Copy Preset n To n ...</b>	makes multiple copies of a preset
<b>Copy Preset n ... To n</b>	copies multiple presets to a contiguous range
<b>Delete All Cue</b>	deletes all cues
<b>Delete All Preset</b>	deletes all presets
<b>Delete Cue n.n ...</b>	deletes specific cues
<b>Delete Preset n ...</b>	deletes specific presets
<b>Move Cue n.n ... To n.n</b>	moves multiple cues to a contiguous range
<b>Move Preset n ... To n</b>	moves multiple presets to a contiguous range

### Storing the Cue Editor

<b>Store Cue</b>	stores cue editor over current cue
<b>Store Cue n.n</b>	stores cue editor as specific cue
<b>Store Dimmer n.n</b>	stores cue editor as dimmer fader assignment
<b>Store Preset</b>	stores cue editor over current preset
<b>Store Preset n</b>	stores cue editor as specific preset

### Loading the Chase Editor

<b>Chase n</b>	loads specific chase into chase editor
<b>Chase n Go</b>	loads specific chase into chase editor and starts it
<b>Chase Go</b>	starts current chase
<b>Chase Record</b>	starts recording a new chase
<b>Edit Chase</b>	reloads current chase into chase editor
<b>Edit Chase n</b>	loads specific chase into chase editor

## Playing Chases

<b>All Chase Stop</b>	stops all chases in the system
<b>Chase n Go</b>	loads specific chase into chase editor and starts it
<b>Chase Go</b>	starts current chase
<b>Chase n ... Stop</b>	stops specific chases wherever they are being played
<b>Chase Stop</b>	stops the chase editor

## Editing the Chase Editor

<b>Add Cue n.n ... [To] Chase</b>	adds new step containing specific cues
<b>Add Cue n.n ... [To] Step</b>	adds specific cues to last step
<b>Add Cue n.n ... [To] Step n</b>	adds specific cues to specific step
<b>Add Step</b>	adds new empty step at end
<b>Add Step n</b>	inserts new empty step, moving others up
<b>Clear All Cue (from) Step</b>	clears last step without removing it
<b>Clear All Cue (from) Step n ...</b>	clears specific steps without removing them
<b>Clear All Step</b>	removes all steps
<b>Clear Chase</b>	clears the chase editor
<b>Clear Cue n.n ... (from) All Step</b>	clears specific cues from all steps
<b>Clear Cue n.n ... (from) Step</b>	clears specific cues from last step
<b>Clear Cue n.n ... (from) Step n ...</b>	clears specific cues from specific steps
<b>Clear Step</b>	removes last step
<b>Clear Step n ...</b>	removes specific steps, moving others down

## Copying, Deleting and Moving Chases

<b>Copy Chase n To n ...</b>	makes multiple copies of a chase
<b>Copy Chase n ... To n</b>	copies multiple chases to a contiguous range
<b>Delete All Chase</b>	deletes all chases
<b>Delete Chase n ...</b>	deletes specific chases
<b>Move Chase n ... To n</b>	moves multiple chases to a contiguous range

## Storing the Chase Editor

<b>Store Chase</b>	stores chase editor over current chase
<b>Store Chase n</b>	stores chase editor as specific chase

## **Loading the Macro Editor**

<b>Clear Macro</b>	clears the macro editor
<b>Edit Macro</b>	reloads current macro into macro editor
<b>Edit Macro n</b>	loads specific macro into macro editor
<b>Macro n</b>	loads specific macro into chase editor
<b>Macro n Go</b>	loads specific macro into macro editor and starts it
<b>Macro Go</b>	starts current macro
<b>Macro Record</b>	starts recording a new macro
<b>Macro Step n</b>	selects specific step in macro editor

## **Playing Macros**

<b>All Macro Stop</b>	stops all macros in the system
<b>Macro n Go</b>	loads specific macro into macro editor and starts it
<b>Macro Go</b>	starts current macro
<b>Macro n ... Stop</b>	stops specific macros wherever they are being played
<b>Macro Stop</b>	stops the macro editor

## **Editing the Macro Editor**

<b>Add Chase n ... [To Macro]</b>	appends Chase n events to macro editor
<b>Add Chase Stop</b>	appends Stop chases event to macro editor
<b>Add Chase n ... Stop</b>	appends Stop chs n events to macro editor
<b>Add Clear Cue [To Macro]</b>	appends Cue Clear event to macro editor
<b>Add Cue n.n ... To Macro</b>	appends Cue n events to macro editor
<b>Clear Macro Step</b>	removes the current macro event
<b>Clear Macro Step n ...</b>	removes specific macro events

## **Copying, Deleting and Moving Macros**

<b>Copy Macro n To n ...</b>	makes multiple copies of a macro
<b>Copy Macro n ... To n</b>	copies multiple macros to a contiguous range
<b>Delete All Macro</b>	deletes all macros
<b>Delete Macro n ...</b>	deletes specific macros
<b>Move Macro n ... To n</b>	moves multiple macros to a contiguous range

## **Storing the Macro Editor**

<b>Store Macro</b>	stores macro editor over current macro
<b>Store Macro n</b>	stores macro editor as specific macro

## **Selecting Fader Assignments**

<b>Dimmer Page n</b>	selects dimmer page
<b>Dimmer Submaster Page n</b>	selects dimmer page
<b>Submaster Page n</b>	selects submaster page

## Editing Fader Assignments

<b>Add Chase n ... [To] Submaster p.f</b>	adds chases to submaster fader
<b>Add Cue n.n ... [To] Submaster p.f</b>	adds cues to submaster fader
<b>Add Dimmer n ... [To] Submaster p.f</b>	adds dimmers to dimmer fader
<b>Add Dimmer n ... [To] Submaster p.f @ n</b>	adds dimmers to dimmer fader with scaling
<b>Add Dimmer n ... [To] Submaster p.f @ Full</b>	adds dimmers to dimmer fader
<b>Add Dimmer Group n ... [To] Submaster p.f</b>	adds dimmer groups to dimmer fader
<b>Add Dimmer Group n ... [To] Submaster p.f @ n</b>	adds dimmer groups to dimmer fader with Scaling.
<b>Add Dimmer Group n ... [To] Submaster p.f @ Full</b>	adds dimmer groups to dimmer fader
<b>Add Fixture n ... [To] Submaster p.f</b>	adds Dim feature of fixtures to dimmer fader
<b>Add Fixture n ... [To] Submaster p.f @ n</b>	adds Dim feature of fixtures to dimmer fader with scaling
<b>Add Fixture n ... [To] Submaster p.f @ Full</b>	adds Dim feature of fixtures to dimmer fader
<b>Add Fixture Group n ... [To] Submaster p.f</b>	adds Dim feature of fixture groups to dimmer fader
<b>Add Fixture Group n ... [To] Submaster p.f @ n</b>	adds Dim feature of fixture groups to dimmer fader with scaling
<b>Add Fixture Group n ... [To] Submaster p.f @ Full</b>	adds Dim feature of fixture groups to dimmer fader
<b>Add Fixture Group [To] Submaster p.f</b>	adds Dim feature of current fixture group to dimmer fader
<b>Add Fixture Group [To] Submaster p.f @ n</b>	adds Dim feature of current fixture group to dimmer fader with scaling
<b>Add Fixture Group [To] Submaster p.f @ Full</b>	adds Dim feature of current fixture group to dimmer fader
<b>Add Fixture [To] Submaster p.f</b>	adds Dim feature of selected fixtures to dimmer fader
<b>Add Fixture [To] Submaster p.f @ n</b>	adds Dim feature of selected fixtures to dimmer fader with scaling
<b>Add Fixture [To] Submaster p.f @ Full</b>	adds Dim feature of selected fixtures to dimmer fader
<b>Add Macro n ... [To] Submaster p.f</b>	adds macros to submaster fader
<b>Clear All Chase (from) Submaster p.f</b>	removes all chases from submaster fader
<b>Clear All Cue (from) Submaster p.f</b>	removes all cues from submaster fader
<b>Clear All Dimmer (from) Submaster p.f</b>	removes all dimmers from dimmer fader
<b>Clear All Fixture (from) Submaster p.f</b>	removes all fixtures from dimmer fader
<b>Clear All Macro (from) Submaster p.f</b>	removes all macros from submaster fader
<b>Clear Chase n ... (from) Submaster p.f</b>	removes specific chases from submaster fader
<b>Clear Cue n.n ... (from) Submaster p.f</b>	removes specific cues from submaster fader
<b>Clear Dimmer n ... (from) Submaster p.f</b>	removes specific dimmers from dimmer fader
<b>Clear Dimmer Group n ... (from) Submaster p.f</b>	removes specific dimmer groups from dimmer fader
<b>Clear Fixture n ... (from) Submaster p.f</b>	removes Dim feature of specific fixtures from dimmer fader
<b>Clear Fixture Group n ... (from) Submaster p.f</b>	removes Dim feature of specific fixture groups from dimmer fader
<b>Clear Macro n ... (from) Submaster p.f</b>	removes specific macros from submaster fader

## Controlling Submasters By Command

<b>All Submaster Stop</b>	stops all running submasters, with fade out
<b>Dimmer Submaster p.f ... @ n</b>	sets dimmer submasters to specific level
<b>Dimmer Submaster p.f ... @ Full</b>	sets dimmer submasters to maximum level
<b>Submaster p.f ... @ n</b>	sets submasters to manual mode at specific level
<b>Submaster p.f ... @ Full</b>	sets submasters to manual mode at maximum level
<b>Submaster p.f ... Go</b>	starts submasters, with fade in
<b>Submaster p.f ... Stop</b>	stops submasters, with fade out
<b>Submaster Stop</b>	stops all submasters immediately

## Copying, Deleting and Moving Fader Assignments

<b>Copy Dimmer Page n To n</b>	copies a page of dimmer faders
<b>Copy Dimmer Submaster p.f To p.f</b>	copies a single dimmer fader
<b>Copy Dimmer Submaster Page n To n</b>	copies a page of dimmer faders
<b>Copy Submaster p.f To p.f</b>	copies a single submaster fader
<b>Copy Submaster Page n To n</b>	copies a page of submaster faders
<b>Delete All Dimmer Submaster</b>	deletes all dimmer fader assignment pages
<b>Delete All Submaster</b>	deletes all submaster fader assignment pages
<b>Delete Dimmer Page n ...</b>	deletes specific dimmer fader assignment pages
<b>Delete Dimmer Submaster p.f ...</b>	deletes specific dimmer fader assignments
<b>Delete Dimmer Submaster Page n ...</b>	deletes specific dimmer fader assignment pages
<b>Delete Submaster p.f ...</b>	deletes specific submaster fader assignments
<b>Delete Submaster Page n ...</b>	deletes specific submaster fader assignment pages
<b>Move Dimmer Page n To n</b>	moves dimmer fader assignment page
<b>Move Dimmer Submaster p.f To p.f</b>	moves single dimmer fader assignment
<b>Move Dimmer Submaster Page n To n</b>	moves dimmer fader assignment page
<b>Move Submaster p.f To p.f</b>	moves single submaster fader assignment
<b>Move Submaster Page n To n</b>	moves submaster fader assignment page

## **Stopping Playback and Record**

<b>All Chase Stop</b>	stops all chases in the system
<b>All Macro Stop</b>	stops all macros in the system
<b>Chase n ... Stop</b>	stops specific chases wherever they are being played
<b>Chase Stop</b>	stops chase editor playback
<b>Cue Stop</b>	stops cue editor crossfading
<b>Macro n ... Stop</b>	stops specific macros wherever they are being played
<b>Macro Stop</b>	stops macro editor playback
<b>Record</b>	stops chase or macro recording
<b>Stop</b>	stops chase editor playback, cue editor crossfading