

ITC

micro *VISION*

U S E R M A N U A L



micro **VISION**

Lighting control system

Version 1.1

User manual

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chapter 1

introduction

Introducing MicroVision from Electronic Theatre Controls. MicroVision offers a extensive set of features that enable you to create wide range of dramatic, on-stage effects utilizing the very latest in theatrical lighting technology. This chapter includes information to orient you to the console and the manual. It includes the following sections.

- MicroVision's features
- Using this manual
- Text conventions
- Pile-on convention
- Getting help
- Customer support

MicroVision features

MicroVision includes the following features:

- 6 manual faders that control programmed submasters.
- Five pages of submasters, each of which can hold a full set of recorded submasters.
- 125 control channels.
- Proportional control channel softpatch that accommodates up to 512 dimmers.
- 200 cue capacity per show.
- Disk drive that can store up to five shows per 3.5" disk.
- Two independent, timed, fader pairs used to playback recorded cues.
- Support for optional accessories: Remote Focus Unit, MIDI, Real Time Clock and Console-Driver Protocol.

Using this manual

This manual provides instructions for MicroVision's features and optional accessories. The following chapters are included:

<i>Chapter 1 Introduction</i>	MicroVision capabilities, console and manual conventions, getting help, and customer support.
<i>Chapter 2 Installation</i>	Instructions for installing monitor and optional accessories.
<i>Chapter 3 Entering softpatch</i>	Instructions for entering system settings that you are likely to change before using MicroVision for the first time or before beginning a new show.
<i>Chapter 4 Tutorial</i>	Tutorial on working with cues and submasters. Includes an overview of display and channel modes.
<i>Chapter 5 Using print and disk options</i>	Instructions on using printer and disk options.
<i>Chapter 6 Reference</i>	Description of console keys and menu options in alphabetical order.

<i>Appendix A Error messages</i>	Lists MicroVision error messages and an explanation of each.
<i>Appendix B Specifications</i>	Technical specifications for MicroVision console.
<i>Appendix C Keyboard illustration</i>	Pull-out illustration of MicroVision keyboard.

Text conventions

In this manual, console keys are indicated by square brackets, such as, [Enter]. System messages are printed in boldface, such as, **Select channel**. References to other sections of the manual are printed in italics, such as, *Chapter 1, Introduction*.

Pile-on convention

MicroVision uses a pile-on convention rather than last-action logic to determine levels for channels. Pile-on logic means that MicroVision reads all output levels it receives for a specific channel and sets that channel to the highest of these levels.

For example, assume a channel is included in a submaster. If a channel is also included in a cue that has played back and is in a fader pair, MicroVision sets the channel at the greater of the two settings.

The only exception to MicroVision's pile-on logic are channels *captured* by the keyboard or fader wheel.

Captured channel settings override submaster and fader pair outputs. When you release captured channels, they return to the level they were set at using pile-on logic.

Getting help

Help screens are available for all MicroVision keys. To display help screens:

1. Press [Help].
2. Press any key on the console. MicroVision displays a description of the key you pressed. Help screens are not available for menu options.

Customer service

If you have problems with your console, please follow these steps:

1. First refer to the manual for instructions.
2. If you do not find the answer in the manual, call your local dealer or Electronic Theatre Controls for customer service. Please have the following information available before you call:
 - Console model and serial number
 - Dimmer installation type

To reach Electronic Theatre Controls' customer service department call (608) 831-4116 Monday through Friday, from 9:00 AM to 5:00 PM Central Standard Time. For emergency service after hours and weekends call (608) 831-4773. Your call will be answered electronically and automatically forwarded to a service representative who will contact you as soon as possible.

Address all correspondence about the *Acclaim 300* to:

Electronic Theatre Controls
Customer Service Department
3030 Laura Lane
Middleton, Wisconsin 53562

chapter 2

installation

This chapter includes set up instructions that you need to perform when you install MicroVision and any optional accessories. *Chapter 3, Entering softpatch* includes instructions for entering the software settings that you will probably update before you begin a new show.

This chapter includes the following installation procedures:

- Installing your MicroVision console and monitor
- Configuring your system
- Installing dimmers
- Installing printer
- Installing Remote Focus Unit (RFU)
- Installing Remote Go
- Installing MIDI

Installing your console and monitor

This section includes installation instructions for MicroVision, and connector and pinout specifications for the monitor. Follow these steps to install your MicroVision:

1. Place console on a hard, stable, flat surface with at least six inches of space behind it for ventilation and cable clearance. Console should be at least six feet away from dimmers and high-current AC lines.

Caution: Do not leave the console in a road case tray or on a soft surface. This will inhibit proper ventilation.

2. Verify that your dimmer connector pinout is correct for MicroVision. Pinouts for several dimmer types are listed on pages 11 through 13. If your dimmer type is not listed, contact your dealer or Electronic Theatre Controls.

Caution: Your dimmer control common must be compatible with console control common; they must either be the same level, or the dimmer control common must float. Verify compatibility with your dealer if you are not sure.

3. Locate the power switch at the back of the console and turn it to the **Off** position.
4. Insert the female end of the console power cord in the connector labeled **Power in** on the back panel.
5. Insert the male end of the console power cord in a grounded 120 VAC AC outlet. For 220 VAC operation, consult Electronic Theatre Controls.
6. Insert the female end of the monitor power cord in the monitor connector, and the male end of the monitor power cord in a grounded 120 VAC AC outlet.

7. Insert the video cable in the monitor. Connect the other end of cable in the appropriate console connector listed below.

Digital RGB color monitors	DB-9 connector
Digital grayscale monitors	DB-9 connector
Composite monochrome monitors	BNC connector
8. Turn console and monitor power switches to their **On** positions.
9. Press [Setup]. MicroVision displays Setup menu.
10. Select 7, **System settings**, press [Enter]. MicroVision displays System settings menu.
11. Select 7, **Color/monochrome monitors**, press [Enter]. MicroVision displays Color/Monochrome Monitor selection menu.
12. Select the proper setting for your monitor, either 1 for color, or 2 for monochrome or grayscale monitor.

Installing two monitors

You may want to install two monitors at the same time, one next to the console and one at a remote location. Install one monitor using the color video connector, and the other using the monochrome video connector.

The color monitor should be located next to the console because the length of the color cable is limited to about 10 feet. The monochrome cable (RG59U) can be as long as 150 feet. Therefore, use the monochrome monitor at the remote location.

Monitor connectors and pinouts

RGB color or TTL monochrome

Console connector

DB-9 male

Pinout

- 1 Common (AC ground)
- 2 Common (AC ground)
- 3 Red
- 4 Green
- 5 Blue
- 6 Intensity (green)
- 7 Monochrome video
- 8 HSync
- 9 VSync(60Hz)

Remote monochrome (coaxial cable)

Console connector

BNC female

Pinout

- Center Video (60Hz)
- Shield Common

Installing dimmers

To install dimmers, first determine which of the following connectors are appropriate and insert dimmer cables in appropriate connectors. Then follow the instructions below to select the proper dimmers from the System Settings menu.

Caution: Your dimmer control common must be compatible with console control common; they must either be the same level, or the dimmer control common must float.

To select the proper dimmer settings from the System Settings menu, follow these steps:

1. Press [Set Up], select 7, **System settings**, and press [Enter].
2. Verify that options 4, 5 and 6 indicate the proper dimmer settings for your system.

Digital protocol

Three digital protocols are available. To select the correct protocol, select 4, **Digital protocol**, and press [Enter].

Select one of the following to indicate which digital protocol your system uses:

- 1 - DMX 512
- 2 - D192

AMX 192

AMX 192 is either enabled or disabled at all times. To select the proper setting for you system, select 5, **AMX 192**, and press [Enter]. Then select either 1 to enable or 2 to disable AMX 192 dimmers.

Analog outputs

Analog outputs are either enabled or disabled at all times. To select the proper setting for you system, select 6, **Analog outputs**, and press [Enter]. Then select either 1 to enable or 2 to disable analog outputs.

Digital outputs DMX 512 and D-192 dimmers

Connector

XLR 5 pin female
512 digital multiplex dimmers

Pinout

- 1 Common
- 2 Data (-) (DMX 512 and D-192)
- 3 Data (+) (DMX 512 and D-192)

Analog wire-per-dimmer output (optional)

Connector

Centronics D-36 female

Pinout

Connector one	Pins 1-32 = dimmers 1-32
Connector two	Pins 1-32 = dimmers 33-64
Connector three	Pins 1-32 = dimmers 65-96
All connectors	Pins 33-36 = common (Earth ground)

Analog wire-per-dimmer input (optional)

Connector

Centronics D-36 male

Pinout

Connector one	Pins 1-32 = dimmers 1-32
Connector two	Pins 1-32 = dimmers 33-64
Connector three	Pins 1-32 = dimmers 65-96

All connectors	Pins 33-36 = common (Earth ground)
----------------	------------------------------------

AMX 192, CD80 analog multiplex (optional)

Connector

XLR 4 pin male
192 dimmer outputs per connector
384 outputs maximum, 2 connectors

Pinout

- 1 Common (Earth ground)
- 2 Clock (+)
- 3 Analog data
- 4 Clock (-)

Note: You can configure console for Strand CD-80 Dimmer I and Dimmer II cabling convention. Contact an authorized dealer or Electronic Theatre Controls.

Installing printer

MicroVision supports parallel printers. Serial printers are not supported. Printer functions are described in *Chapter 5, Using print and disk options*. Pinout and connector specifications are on the next page. Follow these steps to install your printer:

1. Insert parallel printer cable into connector labeled Printer on the back of the console.
2. Insert opposite end of printer cable into printer.
3. Turn printer power switch on, and verify that printer is on line.

Printer connectors and pinouts

Parallel printer and Centronics interface adaptor

Console connector
DB-25 female

Printer connector
Centronics D-36

Pinout	Signal	Pinout
1	STRB	1
2	D0	2
3	D1	3
4	D2	4
5	D3	5
6	D4	6
7	D5	7
8	D6	9
10	nc	10
11	Busy	11
12, 13	nc	12, 13
14	+5	14
15	Error	15
16	nc	16
17	nc	17
18 to 25	Ground	18 to 25

Installing printer

MicroVision supports parallel printers. Serial printers are not supported. Printer functions are described in *Chapter 5, Using print and disk options*. Pinout and connector specifications are on the next page. Follow these steps to install your printer:

1. Insert parallel printer cable into connector labeled Printer on the back of the console.
2. Insert opposite end of printer cable into printer.
3. Turn printer power switch on, and verify that printer is on line.

Printer connectors and pinouts

Parallel printer and Centronics interface adaptor

Console connector
DB-25 female

Printer connector
Centronics D-36

Pinout	Signal	Pinout
1	STRB	1
2	D0	2
3	D1	3
4	D2	4
5	D3	5
6	D4	6
7	D5	7
8	D6	9
10	nc	10
11	Busy	11
12, 13	nc	12, 13
14	+5	14
15	Error	15
16	nc	16
17	nc	17
18 to 25	Ground	18 to 25

Installing Remote Focus Unit (RFU)

The Remote Focus Unit (RFU) is a remote unit available to control MicroVision. To install Remote Focus Unit, follow these steps:

1. Verify that RFU power switch is turned **Off**.
2. Insert the RFU cable into the connector on the back of the console labeled, **RFU**.
3. Turn RFU power switch to **On**. MicroVision displays the message, **RFU On**, when RFU is properly installed and turned on.

RFU connector and pinout

Console connector

XLR 6 pin female

Pinout

- 1 Data (+) (to RFU)
- 2 Data (-)
- 3 Data (+) (from RFU)
- 4 Data (-)
- 5 Common (AC ground)
- 6 +12 VDC (fused, 2 A)

Installing Remote Go

A MicroVision console configured for Remote Go provides a 15-pin connector on the back panel that is dedicated to Remote Go. The remote unit connects to the MicroVision console via a 24 AWG, aluminum-shielded, multi-conductor cable with one twisted pair designated for each switch (Belden 9507 S-R PCV Insulated or Alpha 5477 80 Deg. C 300 V PVC). The cable connector at the remote unit will vary depending on the unit itself.

Remote Go connector and pinout

Console connector

DB-15 female

Remote connector

Connector type depends on unit

Pin	Signal	Function
1	RS1+	AB Hold
2	RS1-	AB Hold
3	RS2+	AB Go
4	RS2-	AB Go
5	RS3+	Back
6	RS3-	Back
7	RS4+	Cue 1
8	RS4-	Cue 1
9	RS5+	CD Hold
10	RS5-	CD Hold
11	RS6+	CD Go
12	RS6-	CD Go
13	RS7+	Plus
14	RS7-	Plus
15	Not connected	



chapter 3

entering softpatch

Before you begin creating cues for a show you should first create your softpatch. The softpatch assigns individual dimmers to control channel numbers. You can use a default one-to-one softpatch setup, or you can assign groups of dimmers to channels. The softpatch screen lets you proportionally patch dimmers to channels.

Entering softpatch

MicroVision accommodates up to 512 dimmers in 125 channels. Softpatch gives you complete flexibility in assigning dimmers to control channels.

Softpatch also allows you to proportionally patch individual dimmers to channels to balance a wash or ensure that a specific lamp cannot be brought above a specific level. For instructions see page 24.

You will find instructions on the following pages for one-to-one softpatch, customized softpatch and additional softpatch features.

If you are patching dimmers in a Strand CD80 dimmer rack, see page 26 for special instructions.

Entering one-to-one softpatch

If you have the same number of dimmers and channels, you may want to use a one-to-one softpatch. A one-to-one patch assigns dimmer one to channel one, dimmer two to channel two, and so on. If you have more dimmers than channels, the default setting assigns the first extra dimmer to channel one, the second extra dimmer to channel two, and so on.

To use MicroVision's default softpatch setting follow these steps:

1. Press [Set Up] to display the Set Up Menu.
2. From the Set Up Menu, select 7, **System settings**. Then press [Enter].
3. Select 2, **Number of channels**, and press [Enter].
4. Enter the total number of available channels, up to 125 and press [Enter]. Press [Enter] again to confirm, or press [Clear] to cancel.
5. Select 1, **Number of dimmers**, and press [Enter].
6. Enter the total number of available dimmers, up to 512, and press [Enter]. Press [Enter] again to confirm, or press [Clear] to cancel.
7. Select 3, **Select default softpatch**, and press [Enter].
8. Press [Enter] again to accept the default softpatch settings. Or, press [Clear] to cancel the operation.
9. See instructions on page 24 titled *Proportional patching* for instructions on inhibiting individual dimmer levels within a channel.

Note: For instructions on performing a dimmer check from the patch screen (without returning to Stage mode), see the section titled Capturing channels in softpatch later in this chapter.

Creating custom softpatch

The following sections include information about creating a custom softpatch.

- Using channel zero
- Entering numbers of channels and dimmers
- Patching dimmers to channels

Hint: If you use the same softpatch for several shows, create the softpatch, and record it on a disk before you record any cues. Label the disk Standard patch. When you start your next show, read the Standard patch show into the console, then begin writing cues to avoid re-entering the patch.

Using channel zero

Channel zero works as a holding area for unused dimmers. Channels assigned to channel zero are listed at the end of channel list under "-". These dimmers are not assigned to any channel, but remain on the softpatch screen.

To assign dimmers to channel zero, enter dimmer numbers, press [Chan], then press zero.

Hint: You may choose to begin softpatching by assigning all dimmers to channel zero. Then select dimmers or dimmer groups from channel zero and reassign them to other channels. This lets you start with a clean softpatch screen. You can then display all unused dimmers by selecting channel 0.

Entering numbers of channels and dimmers

You may want to enter the number of available channels and dimmers before you begin custom patching. To do so, follow these steps:

1. Press [Set Up] to display the Set Up Menu.
2. From the Set Up Menu, select 7, **System settings**. Then press [Enter].
3. Select 2, **Number of channels**, and press [Enter].
4. Enter the total number of available channels, up to 125, and press [Enter]. Press [Enter] again to confirm, or press [Clear] to cancel.
5. Select 1, **Number of dimmers**, and press [Enter].
6. Enter the total number of available dimmers, up to 512, and press [Enter]. Press [Enter] again to confirm, or press [Clear] to cancel.

Patching dimmers to channels

Each dimmer can only be patched into one channel at a time. Follow the steps below to create a custom softpatch.

1. Press [Patch]. MicroVision displays the following screen.

Grand Master 100%		Softpatch						Dimmer 361	
Chan	Dimmer Level %								
01	1 95%	61	121	181	241	301	361	421	481
			52%	52%	52%	52%	52%		
02	2 95%	62	122	182	242	302	362	422	482
03	3 95%	63	123	183	243	303	363	423	483
04	4 95%	64	124	184	244	304	364	424	484
05	5 95%	65	125	185	245	305	365	425	485
06	6 95%	66	126	186	246	306	366	426	486

Select dimmer numbers, then press [ENTER]

2. Select dimmers to assign to a single channel.

To select a single dimmer:

- a) Enter the dimmer number.
- b) Press [Enter].

To select a range of consecutive dimmers:

- a) Enter beginning dimmer number.
- b) Press [Thru].
- c) Enter the ending dimmer number.
- d) Press [Enter].

To select a discontinuous set of dimmers:

- a) Enter dimmer number.
- b) Press [And].
- c) Enter additional dimmer numbers, pressing [And] between each.
- d) Press [Enter] after you have selected all desired dimmers.

Shortcut: Combine [And] and [Thru] commands to select any combination of dimmers. For example, press [1] [Thru] [5] [And] [1][0] [Thru] [2][0] to select one through five and 10 through 20.

3. Enter the channel number to which you want to assign selected dimmers; then press [Enter].
4. To patch remaining dimmers, repeat steps two, three and four.
5. See instructions in this chapter titled *Proportional patching* for instructions on inhibiting individual dimmers.

Hint: You may want to return to the Number of channels and Number of dimmers options on the System Setup Menu after you complete your softpatch to delete dimmers and channels that you did not use. To do this, select the Number of dimmers and channels options and enter the number of channels and dimmers that you actually used. This eliminates unused channels and dimmers from the softpatch screen.

Note, however, you must enter the last channel and dimmer number you used, not the number of channels and dimmers you used if these numbers are not the same.

Additional patching features

The following patching features are described below:

- Proportional patching
- Capturing channels in softpatch
- Softpatching to Strand CD80 dimmer rack

Proportional patching

MicroVision lets you inhibit individual dimmer levels from the softpatch screen. You may want to inhibit an individual dimmer to balance the wash in a channel or to limit a particular lamp. Dimmers default to a full level setting unless you inhibit them.

To inhibit individual dimmer levels, follow these steps:

1. If Softpatch screen is not displayed, press [Patch].
2. Enter desired dimmer number, or select a group of dimmers by using [And] and [Thru] in conjunction with dimmer numbers.
3. Press [At], and enter desired intensity level for dimmer.

As long as dimmers are selected you can adjust their levels with [+] and [-].

Dimmer intensity levels set in softpatch function at full level on all other screens. For example, if you enter a level of 60 for a dimmer on the softpatch screen, when you set that channel to full in a cue or submaster, the dimmer will output at 60 percent.

Capturing channels in softpatch

MicroVision lets you select and capture channels without returning to Stage mode so you can bring channels up on stage for a dimmer check or view the proportional settings of dimmers assigned to a channel while you set them. To select channels from the softpatch screen, follow these steps:

1. Press [Chan].
2. Enter channel number.
3. Press [Full] to set channel level at 100 percent, or press [At] and enter a level setting.
4. Press [Rel] to release channels.

Softpatching to a Strand CD80 dimmer rack

Strand CD80 dimmer racks have 48 dimmer slots that accept AMX 192 protocol. Each dimmer slot holds either two 2.4 kw dimmers or one 6 or 12 kw dimmer. When configuring a softpatch using a Strand CD80 rack, all 96 possible dimmer numbers per rack must be included.

Refer to the charts below to determine dimmer numbers for each slot on each rack. When patching 6 or 12 kw dimmers, enter the slot's odd (bold) dimmer number under the desired channel number. Enter the slot's even dimmer number under channel 0.

For example, to patch a 6 kw dimmer into the last dimmer slot on the first rack, enter dimmer 95 in the desired channel number and dimmer 96 in channel 0.

1	3	5	7	9	11
2	4	6	8	10	12
13	15	17	19	21	23
14	16	18	20	22	24
25	27	29	31	33	35
26	28	30	32	34	36
37	39	41	43	45	47
38	40	42	44	46	48
49	51	53	55	57	59
50	52	54	56	58	60
61	63	65	67	69	71
62	64	66	68	70	72
73	75	77	79	81	83
74	76	78	80	82	84
85	87	89	91	93	95
86	88	90	92	94	96

97	99	101	103	105	107
98	100	102	104	106	108
109	111	113	115	117	119
110	112	114	116	118	120
121	123	125	127	129	131
122	124	126	128	130	132
133	135	137	139	141	143
134	136	138	140	142	144
145	147	149	151	153	155
146	148	150	152	154	156
157	159	161	163	165	167
158	160	162	164	166	168
169	171	173	175	177	179
170	172	174	176	178	180
181	183	185	187	189	191
182	184	186	188	190	192

chapter 4

tutorial

This chapter includes lessons on working with MicroVision's basic features: cues and submasters. When you complete the exercises in the lessons, you will have a short sample show to run. Each lesson is described briefly below.

- Lesson 1 describes display and channel modes and record functions.
- Lesson 2 includes instructions for creating several cues using several different methods.
- Lesson 3 includes instructions for creating submasters using several different methods.
- Lesson 4 includes instructions for playing back cues and submasters.
- Lesson 5 includes instructions for saving your work on disk.
- Lesson 6 includes information about the Track record function.

For an alphabetical listing and explanation of all features, keystrokes and menu options, see *Chapter 6, Reference*.

Lesson 1

Display, channel and operation modes

This lesson describes display and channel modes and record functions available in MicroVision. Display modes show channel and level settings for cues, submasters and fader pairs. Channel modes indicate how channels respond when they are in different situations.

Display modes

You can work in either of two modes to create and modify cues and submasters: Stage or Blind. The two modes have very similar screens; the Stage screen is illustrated and described on the next page.

Stage

Stage mode controls live channels. This mode allows you to adjust fixtures and save the look as a cue or submaster when you are satisfied with the look on stage.

Blind

Blind mode allows you to work on cues or submasters without affecting the stage lights. Blind mode is useful when you know ahead of time what channels and levels you want for most of your cues and submasters. Blind also lets you jump ahead of the stage action and make changes to recorded cues or submasters without affecting live stage action.

Stage and Blind screens

Stage and Blind screens look very similar. The Stage mode screen is illustrated below to familiarize you with the screen format.

① Grand Master 100%										② Stage										③ Channel				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
55	63	63	63	65	65	65	65	65	65															
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96				
38	38	38	38	38																				
Select channel number ⑦										Cue		Up/Down		Link		Delay								
										1		0:05		1.2		0:05								
										1.2		0:05		3		0:05								
										3		0:05												
Submaster Page : 1										1		1		1		4		5		6 ⑧				
A Fader 5.0 01%										1		B Fader 5.0 01%		C Fader		D Fader								
⑤										⑥														

Display mode screen description

① Grand master setting

The grand master setting displays the master intensity level. With it you can proportionally inhibit the level of all channels. The grand master overrides all other settings.

② Mode label

This field displays the current mode, either Stage or Blind.

③ Keypad prompt window

This window indicates how the console will interpret the next number you enter from the keypad. For example, if you press [Chan], the keypad prompt window displays the message **Channel**, indicating that the console will read the next number you enter as a channel number.

4 Channel display

The channel display lists available channels and their current levels. If you have a color monitor, MicroVision color codes level displays to provide additional information about channels. For example, in Blind mode tracked channels are green. See the section *Channel modes* on page 31 for further description.

5 Fader windows

Fader windows display fade time information for loaded cues. The window displays the cue number, a running clock of the fade, and the percentage of the fade time that has run.

6 Cue sheet

The cue sheet lists up to seven stored cues: the next cue to run, and up to six additional remaining cues that are waiting to run. Each cue listing includes fade, and delay times, and link information, if applicable. The next cue to run is listed first and is highlighted. The remaining cues are listed next.

7 Operator prompt line

The operator prompt line displays messages to guide you through MicroVision operations. For example, when you press [Chan], this line displays the message, **Select channel numbers**. If you are having problems, look here for information or help.

8 Submaster/cue window

In Stage mode, the Submaster/cue window indicates which submasters are recorded for the currently loaded page. It also indicates if loaded submasters originated from a different page. When you change submaster pages, any submasters set at a nonzero level remain loaded until you pull the submaster pot down to zero.

MicroVision indicates that a submaster is recorded in a page other than the currently loaded page by displaying and highlighting the page number under the submaster number.

In Blind, the Submaster/cue window displays information about the selected cue, including up and down fade times, delay time and link information.

In Blind mode, the Submaster/cue window also indicates the number of cues remaining in the cue limit.

Channel modes

Channels may be in any of the following modes. Each mode responds differently to your commands.

Captured channels

Captured channels are channels that you have selected and are live on stage. They remain live until you press [Rel] to release them. **Captured channels override all other channel settings.** For example, if a channel is in a fader at 100 percent and you capture it and set it to 50 percent, MicroVision reads the 50 percent setting from the captured channel.

You can capture channels only while in Stage mode. Channels can not be captured in Blind mode because it is not live. MicroVision displays captured channels in red and yellow on a color monitor. Red channels are captured; yellow channels are captured *and* selected (see below). The message **Captured channels** appears next to the mode label when channels have been captured in Stage mode.

Selected channels

Selected channels are channels that you have immediate keyboard control over. You can modify selected channels with [Full], [At], [+], [-], or the fader wheel. Selected channels are highlighted. You can select channels in all display modes.

Selected, captured channels are live channels that are under immediate keyboard control. Channels can be *selected and captured* only in live modes. You can select channels in Blind, but they won't be captured since Blind mode is not live.

Recorded channels

Recorded channels are channel levels that have been recorded in a cue or submaster. In Stage mode, recorded levels appear on the screen only when they are in a fader pair or in an active submaster. On a color monitor in Stage mode, recorded levels are displayed in white. Recorded channels may be either moving or tracked in Blind mode (see below).

Moving channels

Moving channels are channel levels that change from one cue to the next. In Blind mode on a color monitor, moving channels are displayed in white. On a monochrome monitor, they are not displayed differently than tracked channels.

Tracked channels

A tracked channel is a channel whose level is unchanged from the preceding cue. On a color monitor, tracked channels are displayed in green in Blind mode. Tracked channels are not distinguished in Stage mode.

Record functions

MicroVision has two record functions: Record and Track. Record saves all channels as they appear on the screen (what you see is what you get) in the cue or submaster you specify. When you use Record to record a cue, levels are recorded in only the cue you specify.

Track is a record function that works only for cues. It allows you to build a new cue from the previous cue's channel settings. Tracked channels are channels whose levels do not change from one cue to the next. A *track* often runs through several cues for the length of a scene or an act.

Track also allows you to add tracked channels through existing cues. For example, if you have created all cues for a scene, and then decide to add a new channel or group of channels to all cues, Track lets you do so with one short record command. To do the same thing with Record would require you to add the channels to each cue individually.

The Track record function is described in *Lesson 6* in this chapter.

Lesson 2

Working with cues

Now that you have an orientation to the channel display screens, you're ready to create cues. If you are not sitting at the console but want to refer to the keyboard, see *Appendix C* for an illustration of it.

When working with MicroVision, a *cue* is the stored memory of a look you have created and can replay in a timed fader pair. After you select channels and set their intensity levels, you can store the look as a cue. You can save up to 200 cues per show in MicroVision. When you record a cue, MicroVision displays a message telling you how many cues are still available.

You can record shows on standard 3.5" disk; each disk can hold five shows. If your performance runs over 200 cues, you can read a second show from disk during a break or between cues. See *Lesson 5* for more information about recording shows on disk.

This lesson includes instructions and examples for creating cues using several different methods. When you have completed the lesson, you will have five cues recorded. You will also know how to modify and delete cues.

Creating cues

Five cues are included in the following instructions. The first few are simple; the rest use more complicated features. This lesson includes the following sections:

- Cue 1, Creating a cue in Stage
- Cue 2, Creating a cue in Blind
- Cue 3, Modifying up and down fade times
- Cue 4, Linking cues
- Cue 5, Creating a cue using Rem Dim
- Deleting cues
- Viewing cues

There are several methods you can use to create any one look with MicroVision. Deciding how to create a look depends on your situation and what information is already stored in the console.

If you already have several cues recorded, you may want to use the look from one cue and add to it to create another. Other times, you may want to enter all channel levels from scratch.

If you are in the middle of a tech rehearsal, you will probably want to use Stage mode so you can see your adjustments live. If you have a good idea of how you want cues to look, you may want to record the show in Blind ahead of time.

The text in the following pages includes specific instructions on how to create cues in MicroVision. Specific keystroke sequences show you how to create sample cues.

There are several ways you can go about creating any one look. The following instructions give examples of how you *could* generate each cue. Experiment and add as much as you want to each.

We assume that when you start this tutorial there are no cues stored in the console. To erase the current show from the console, press [Set Up]. Then select 6, **Clear System**, and press [Enter]. Press [Enter] again to confirm, or press [Clear] to cancel. *Before you clear the system, make sure that the show currently in the console memory is saved on disk. When you clear the console, all show information is erased.*

Cue 1: Creating a cue in Stage

Once you are in Stage, you have live control of channels. Follow these steps to create a cue in Stage mode:

1. Press [Stage]. MicroVision displays the Stage mode screen and automatically prompts you to enter a channel number.
2. Enter channel number(s) with numeric keypad.
3. Set intensity level by pressing [At] and entering a two-digit level, moving the fader wheel, or pressing [+] and [-].
4. Press [Record] to indicate that you want to record the cue. At this point, MicroVision displays the number of cues still available.
5. Enter cue number with numeric keypad.
6. Press [Enter] to record cue.
7. Press [Rel] to release captured channels.

Cue 1 keystrokes:

Key	Action
[Stage]	Displays Stage mode.
[1]	Selects channel 1.
[At]	Indicates next number entered will be an intensity level.
[7][5]	Enters intensity level of 75 percent.
[Record]	Indicates that you want to record cue.
[1]	Enters cue number.
[Enter]	Records cue.
[Rel]	Releases captured channels.

Cue 2: Creating a cue in Blind

Follow these steps to create a cue in Blind mode, for a range of channels, using [Full]. MicroVision automatically enters 00 for channels you used in cue 1 to indicate that they will downfade in cue 2.

1. Press [Blind]. MicroVision displays Blind mode screen. You do not have live control of channels in Blind. MicroVision automatically prompts you to enter cue number.
2. Enter cue number you want to display or record.
3. Press [Chan] to indicate that the next number entered will be a channel number.
4. Enter channel number to mark start of a range of channels.
5. Press [Thru] to indicate you are entering a range of channels.
6. Enter channel number to mark end of range. Selected channels are highlighted or displayed in yellow.
7. Press [Full] to set channels at full intensity level.

Note: When using [Full], you do not have to press [At] first.

8. Press [Record] to indicate that you want to record the cue.
9. Press [Enter].

Cue 2 keystrokes:

Key	Action
[Blind]	Displays Blind mode screen.
[2]	Selects cue 2.
[Chan]	Indicates that the next number entered will be a channel.
[1]	Selects channel 1.
[Thru]	Indicates you are going to enter a range.
[1][5]	Marks end of range. Channels 1 through 15 are selected.
[Full]	Enters full level intensity for selected channels.
[Record]	Indicates you want to record the cue.
[Enter]	Records cue.

Cue 3: Modifying up and down fade times

You may also want to modify cue up and down fade times. When you create a cue, MicroVision assumes you want to use the default fade times. However, you can easily change fade times using [Time].

To create cue 3, add channels to the channels remaining from cue 2.

1. Press [Blind] if the Blind mode screen is not already displayed.
2. Add channels using numeric keypad and [And] or [Thru]; then enter intensity levels.
3. Press [Time].
4. Enter upfade time between .1 and 99:59. You can enter time either in minutes and seconds or with a fraction of a second in decimal format. For example, all of the following are acceptable: .2, 00:12, 5.5, 5:30.
5. Press [Enter].
6. Enter downfade time, if different from upfade time. Enter a time between .1 and 99:59. If you do not enter a time, MicroVision assumes you want the same downfade time as upfade time.
7. Press [Enter].
8. Press [Record] to indicate that you want to record the cue.
9. Enter cue number, and press [Enter].

Cue 3 keystrokes:

If you did not press [Rel] after you saved the last cue, channels 1 through 15 should still be selected on the Blind mode screen.

Key	Action
[Chan]	Indicates next number entered will be a channel.
[2][6]	Marks beginning of range.
[Thru]	Indicates that you are entering a range.
[5][0]	Marks end of range.
[Full]	Enters full intensity for selected channels.
[Time]	Indicates that you want to change fade times.
[1][0]	Enters ten second upfade time.
[Enter]	Enters upfade time and prompts you for downfade time.
[Enter]	Enters same fade time as for upfade.
[Record]	Indicates you want to record cue.
[3]	Enters cue number.
[Enter]	Records cue.

Cue 4: Linking cues

MicroVision lets you link cues to create a sequence that runs automatically. You can link a string of cues, or you can create a loop to produce a chase.

1. Create and record a cue using techniques described for cues 1 through 3.
2. Press [Link].
3. Enter cue number you want to link current cue to. You can enter either a cue number that exists already or one you are going to create. Press [Enter].
4. Enter delay time in minutes and seconds or with a fraction of a second in decimal format. For example, all of the following are acceptable: .2, 00:12, 5.5, 5:30. Delay times may be between .1 second and 99:59.

The delay time is the length of time after the first cue starts before the cue it is linked to starts. For example, if the delay time for the link is 10 seconds, the second cue upfade starts 10 seconds after the first cue's upfade begins.

MicroVision enters a default delay time that equals the total running time of the first cue. That way, the cues run back to back. The total running time of a cue is the longer of either the upfade time or the downfade times.

To change the delay time for a cue that is already linked, press [Link] twice, enter delay time, and press [Enter].

Note: If you are entering link information for existing cues, you do not have to rerecord the cue.

Cue 4 keystrokes:

Key	Action
[Blind]	Displays Blind mode screen.
[Chan]	Indicates that you are going to enter channel numbers.
[5][1]	Selects channel 51.
[Thru]	Indicates that you want to enter a range of channels.
[7][5]	Marks end of range of channels.
[Full]	Sets captured channels at full intensity.
[Record]	Indicates you want to record the cue.
[Cue][4]	Enters cue number.
[Enter]	Records cue.
[Link]	Indicates that you are going to link another cue to cue 4.
[5]	Selects cue 5 to link to cue 4. (Note that in this example we have not yet created the link-to cue.)
[Link]	Enters cue link information.
[1][0]	Sets delay time to 10 seconds.
[Enter]	Enters delay time.

Cue 5: Creating a cue using Rem Dim

Often you will create cues by adding to, subtracting from or modifying previously recorded cues. [Rem Dim] lets you select a subset of displayed channels and delete all others.

Assuming you are still in Blind and have cue 4 displayed, follow these steps to create a cue using [Rem Dim]:

1. Press [Chan] to indicate that the next number entered will be a channel number.
2. Enter channel number to mark the beginning of the subset to select.
3. Press [And] or [Thru] to indicate you are selecting a range of channels.
4. Enter another channel number with numeric keypad to mark the end of the range.
5. Press [Rem Dim]. MicroVision sets all unselected channels to a level of zero.
6. Move the fader wheel, press [At], [+] and [-], or use [At] and numeric keypad to set desired level.
7. Press [Record] to indicate that you want to record the cue.
8. Enter cue number with numeric keypad.
9. Press [Enter] to record cue.

Cue 5 keystrokes:

Key	Action
[Chan]	Indicates that the next number entered will be a channel number.
[6][0]	Marks the beginning of the subset.
[Thru]	Indicates you are selecting a range of consecutive channels.
[6][5]	Marks the end of the range.
[Rem Dim]	Deletes all unselected channels.
Fader wheel [At], [+] and [-], or [At] and numeric keypad	Sets desired level.
[Record]	Indicates that you want to record the cue.
[5]	Enters cue number.
[Enter]	Records cue.

Inserting cues

You may want to insert a cue between recorded cues. For example, you may want to modify cue 1 slightly and insert it between cues 1 and 2. You can number cues with a one-digit decimal. Therefore, you can insert up to nine cues between one and two (1.1, 1.2, etc.). To modify and insert a cue, follow these steps:

1. Press [Blind]. MicroVision automatically prompts you for a cue number.
2. Enter cue number you want to modify.
3. Make modifications.
4. Press [Record].
5. Enter cue number with a decimal to insert it between cues. If you do not enter a new cue number, you will overwrite the existing cue.
6. Press [Enter].

Insert cue keystrokes:

Key	Action
[Blind]	Displays Blind mode screen.
[1]	Displays cue 1.
[Chan] [1][0] [Thru] [1][5], fader wheel	Modifies cue.
[Record]	Indicates you want to record cue.
[1] [.][1]	Enters cue number 1.1.
[Enter]	Records and inserts cue 1.1 between cues 1 and 2.

Deleting cues

You must be in Blind to delete *individual* cues. To delete all cues, use the Clear all cues option from the Set Up Menu. To clear complete show, use Clear system option from Set Up Menu.

To delete individual cues, follow these steps:

1. Press [Blind] and then [Cue].
2. Enter cue number you want to delete.
3. Press [Clear].
4. Press [Record] to delete the cue or [Record] then [Cue] to cancel the action.

To delete all cues from console memory, follow these steps:

1. Press [Set Up].
2. Select 4, **Clear all cues**, and press [Enter].
3. Press [Enter] to delete all cues from console memory, or press [Clear] to cancel the action.

To clear entire show from console memory, follow these steps:

1. Press [Set Up].
2. Select 6, **Clear system**, and press [Enter].
3. Press [Enter] to clear entire show from console memory, or [Clear] to cancel the action.

Warning: When you initiate Clear system, all show data stored in MicroVision is lost. Save the current show on disk if you do not want to permanently lose all show information.

Viewing cues

Once you have created a few cues, you may want to look at them. You can view stored cues in two ways, live in Stage mode, or just on the screen in Blind mode.

To view cues live, you must select the cue and play it back in a fader, see *Lesson 3: Playing back cues* for instructions.

To view a cue just on the screen, select Blind mode and enter the cue number you want. To view a different cue, press [Cue] and the new cue number that you want to see.

In Blind mode you can also use [+] and [-] to move through recorded cues one at a time. Press [Cue]; thereafter [+] displays the next cue, and [-] displays the previous cue.

Lesson 3

Playing back cues

Now that you have some cues, you're probably anxious to play them back. MicroVision has two sets of timed fader pairs that playback recorded cues. The left fader in each pair (faders A and C) controls upfades. The right fader in each pair (B and D) controls downfades.

You can playback cues one at a time through a single fader pair, or you can playback a different cue in each fader pair at the same time.

You can also play a cue in one pair, leave it there, and then play another cue in the second fader pair. This is one way to put two looks on stage at the same time.

For example, you may want to play a 10 minute sunset cyc cue in one fader pair while you play several cues during the same period downstage in the other fader pair.

This lesson includes the following sections:

- Selecting cues
- Timed fader pairs
- Playing back cues
- Go to a different cue
- Controlling fades manually
- Back key

Selecting cues

There are three ways a cue can be selected to playback on stage:

1) when a cue is playing, MicroVision automatically selects the next cue;
2) you select cue manually; or 3) MicroVision automatically selects linked cues. You must be in Stage mode to select cues to playback.

When one cue is playing, MicroVision assumes that you want the next consecutive cue to play next. To play the next cue, press either one of the [Go] switches (A or C). You can press [Go] while you are viewing the Blind mode screen if the correct cue is already selected on the cue sheet.

To select a cue out of sequence, press [Cue], and enter the cue number. Then press either of the [Go] switches to start playing the cue.

Linked cues begin playing automatically. When you play a string of linked cues, or a chase loop, you only need to start the first cue.

Timed fader pairs

When fader controls are on full (10), MicroVision plays fade times as you recorded them. For information on taking manual control of fades, see the section titled *Controlling fades manually* later in this lesson.

Playing back cues

To playback the cues you created in Lesson 2, follow these steps:

1. Press [Stage] to display stage mode.
2. Press [Cue] to indicate that you want to select a cue.
3. Enter the cue number you want to playback. To playback cues you recorded from Lesson 2, press [1].[1].
4. Press either [Go] key. Cue 1.1 begins. MicroVision assumes that you want to play cue 2 next.
5. Press [Go] to start cue 2.

If you press [Go] before a cue finishes playing, the previous cue stops and the new cue begins from the levels at which the previous cue was interrupted.

Go to a different cue

To playback a cue other than the selected (highlighted) cue on the cue sheet, follow these steps:

1. Press [Cue].
2. Enter the cue number you want to play next.
3. Press [Go].

Hint: If you want to pull a cue up immediately, without waiting for the recorded fade times, when fade starts, pull faders down to zero, then push them to 10 (100 percent).

Controlling fades manually

MicroVision allows you to take manual control of cues as they play. When your live show slows down or speeds up, you can take manual control of fade rates to account for variances in performances.

If faders are on 10 (100 percent) when you start a cue, cues playback with recorded fade times.

When you set the faders lower than 10, the cue runs until it reaches the fader level setting. Fades stop, and you have manual control of fade rates. To establish manual control of a fade from the beginning of cue, set faders at zero before you press [Go].

If you start a cue and the performance runs behind, push the slide faders down to establish manual control of the fade speeds. Now you can push the fader up or down to finish the cue at a rate appropriate for the performance.

Hint: If you start a cue, and the performers skip ahead to the next cue, you have two options for speeding up to the next cue. If you do not need the current cue to reach its full intensity level settings, press [Go] to interrupt the current cue and begin the next one. However, if you need the current cue to reach its full level settings, push the slides down and then back up to 10 immediately. Then press [Go] to start the next cue.

Manual control of linked cues

When you playback linked cues, the left fader in each fader pair controls intensity levels; the right fader controls the playback rate. When you begin a linked cue with the right fader at 10, MicroVision plays it back at the recorded rate. To take manual control of the playback rate, move the fader to 50 percent. Then move the fader up or down to adjust rate; 10 is instantaneous playback through steps or cues, and 0 stops playback.

If right fader is set at anything other than 10 when you start the linked cues or effects playback at the rate set on the fader.

Modifying cues on stage

To modify and record a cue on stage, follow these steps:

1. Press [Stage].
2. Press [Cue], and enter cue number.
3. Press [Go] to playback cue.
4. Push faders down and back up to override fade times.
5. Modify cue.
6. Press [Record].
7. To rerecord as same cue, press [Enter].

Or, to record as a new cue, enter new cue number, and press [Enter].

8. Release captured channels.

Note: If you rerecord as same cue, modifications are reflected in fader. If you record the cue with a new number, modifications are not reflected in the fader; you may want to run cue through fader before you release channels if you don't want to lose the look from stage.

Back key

After you play a cue, pressing the Back key plays back the cue that precedes it on the cue sheet.

For example, assume you have recorded cues one, two and three. If you play cue one and then cue two, pressing [Back] brings up cue one again. But, if you play cue one and then cue three, pressing [Back] will bring up cue two because it immediately precedes cue three on the cue sheet. Pressing [Back] after playing the first cue on the cue sheet fades all outputs to zero.

[Back] always plays back cues in the AB fader (regardless of which fader pair you played the cue in originally) and always uses the default fade times regardless of recorded fade times.

Note: When you use the [Back] key the cue currently loaded in the CD fader pair is cleared.

Clearing fader pairs

Each timed fader pair is equipped with a Clear key. To clear a cue from a fader pair, press the appropriate clear key. Faders will clear immediately.

Lesson 4

Working with submasters

Submasters allow you to save looks that you use often. They can be used as building blocks when you create cues or other submasters. For example, you might create a different submaster for each cyclorama wash; another submaster might include practicals. Or you might choose to create a series of submasters for each area of your set.

MicroVision is equipped with 6 potentiometers, or *pots*. You can record a submaster in each pot. Each submaster consists of a slide control and a bump switch. The slide control allows you to bring the submaster look up manually. The bump switch allows you to flash the submaster to its full recorded level.

When a slide pot is set at **0**, the submaster is at zero percent of its recorded level. To increase submaster level, push pot up. When pot is set at **10**, submaster is at 100 percent of recorded level.

If several outputs (timed playback faders and other submasters) include the same channel, the highest output level overrides all others. This is called *pile-on* logic. However, captured channels override *pile-on* submaster levels.

Each channel may be included in as many *pile-on* submasters as you choose.

This lesson includes the following sections:

- Submaster pages
- Recording a submaster
- Controlling submaster fades manually
- Modifying pile-on submasters
- Copying submasters
- Deleting submasters

After creating cues in Lesson 2, you should be well acquainted with several methods for creating looks on stage. In this lesson, we won't trouble you with reading instructions on selecting channels and setting levels since you already know how to do that. Instead, we'll concentrate on how creating submasters is different from creating cues.

Submaster pages

MicroVision has five *pages* of submasters. Each page can hold a recorded submaster in each pot. In Stage mode, the Submaster/cue window indicates which submasters are recorded for the currently loaded page. It also indicates if loaded submasters originated from a different page. When you change submaster pages, any submasters set at a nonzero level remain loaded until you pull the submaster pot down to zero.

MicroVision indicates that a submaster is recorded in a page other than the currently loaded page by displaying and highlighting the page number under the submaster number.

To switch pages, press [Page] and enter the page number you want.

When you load a new page, any submasters set at a level above zero remain on stage until you pull them down to zero. This prevents the stage from going black when you switch pages. Submasters remaining from the previous page are indicated by the displayed page number on the Submaster/cue description line.

Submasters from the new page are not loaded into pots until you pull them down to zero.

Note: When you read a new show into the console from a disk, MicroVision loads the new show information immediately, without waiting for fades from the previous show to end. All faders from the first show are cleared and the submaster page is automatically set to page one of the second show. Because of this, we recommend that new shows should only be read from disk during an intermission, or some other time when the stage lights are blacked out.

Recording a pile-on submaster

Creating a submaster is as easy as creating a cue. You can create submasters in Stage or Blind mode. To create a submaster, follow these steps:

1. Select channel and level settings as you did for cues. See *Lesson 2, Creating cues* if you need a review. You can use channel settings from other submasters or cues by bringing up a recorded look, then modifying it as you desire.
2. Press [Record] then [Sub].
3. Enter the submaster number you want to record, and press [Enter].

Or, press the submaster bump switch where you want to record the look.

5. Press [Rel] to release captured channels.
6. Push the submaster pot up. The channels you recorded come up at the proportionate levels you recorded.

Recording submaster on a different page

You may record a submaster to a page other than the one currently loaded. For example, if you have page one loaded, you can create a look on stage, and record it to page two if you wish. To do so, follow these steps:

1. Create a look on the screen.
2. Press [Record].
3. Press [Page].
4. Enter the page number on which you want to record submaster.
5. Press the bump switch of the submaster in which you want to record the look.

Modifying pile-on submasters

To modify a recorded pile-on submaster, follow these steps:

1. Press [Blind] to display Blind mode.
2. Press [Sub] and the number of the submaster you want to modify.

3. **To add or change channels:**

Select channel numbers and set desired levels.

To change all channels proportionally:

Select channels at current levels, then move the fader wheel to proportionally modify levels.

To delete channels:

Select channels and press [Clear] to set them to 00.

4. Press [Rec] and [Enter].

Copying submasters

You may want to copy a submaster, or use submasters as building blocks for new submasters. To copy a look from one submaster to another in Stage, follow these steps:

1. Press [Stage].
2. Set submaster pot(s) that you want to copy at desired level.
3. Make any additional adjustments you want, such as selecting channels to add, playing back cues through fader pairs or bringing up other submasters.
4. Press [Record].
5. Press [Page], and enter the page number onto which you want to copy the submaster, if it is not the currently loaded page.
6. Press [Sub] and enter new submaster number, and press [Enter], or press the submaster bump switch.

Deleting submasters

You must be in Blind to delete individual submasters. You can delete all submasters or the entire show from the Set Up Menu.

To delete individual submasters, follow these steps:

1. Press [Blind] and then [Sub].
2. Enter submaster number you want to delete.
3. Press [Clear] [Record] to delete the submaster.

To Clear all submasters and submaster pages, follow these steps:

1. Press [Set Up].
2. Select 5, **Clear all submasters and submaster pages**, and press [Enter].
3. Press [Enter] to delete all recorded submasters.

Or, press [Clear] to cancel the action.

To clear the entire show including all cues, submasters and softpatch, follow these steps:

1. Press [Set Up].
2. Select 6, **Clear system**, and press [Enter].
3. Press [Enter] to clear entire show.

Or, press [Clear] to cancel the operation.

Warning: When you initiate Clear system, all show data stored in MicroVision is lost. Save the current show on disk if you do not want to permanently lose all show information.

Lesson 5

Saving your show on disk

You should always make at least one back up copy (if not two) of each show you are working on. Back up copies are stored on standard 3.5" computer disks. We suggest that you make back up copies of your work after every session during which you modify a show.

Back ups include system setting information, softpatch, cues, submasters, and any other information that you have in the console at the time you record the show on disk.

To make back up copies of your work requires these steps, (each is included in this lesson):

- Format a standard double-sided, double-density 3.5" disk on the console
- Record show on formatted disk

More disk information and instructions on reading a show from disk, see *Chapter 5, Using print and disk options.*

Formatting disks

You must format disks on a MicroVision console before you can record shows on them. MicroVision cannot record shows on unformatted disks or disks that are formatted on other types of Electronic Theatre Controls consoles or personal computers. Each disk can hold five shows.

Warning: Formatting a disk erases all information recorded on disk. It does not affect the current show in console.

To format disk, follow these steps:

1. Insert standard double-sided, double-density 3.5" computer disk in disk drive.
2. Press [Set Up].
3. Select 3, **Format disk**, and press [Enter].
4. Begin formatting by pressing [Enter].

Or, cancel format operation by pressing [Clear].

Recording a show on disk

To record a show from memory to a disk follow these steps:

1. Insert a formatted disk in disk drive.
2. Press [Set Up] to display the Set Up Menu.
3. Select 1, **Write show to disk**, and press [Enter].

If either show is currently recorded on disk, the screen displays the message, **Recorded**, or the date recorded if you have the Real Time Clock option. If no show is recorded on disk, MicroVision displays the message, **Not recorded**.

4. Select a show number and press [Enter]. If the show number you select is already recorded, the new show will overwrite the old show.

Lesson 6

Track record function

The Track record function helps you use MicroVision more efficiently and create more complex lighting effects.

Track is a record function that allows you to modify recorded cues and designate new levels for the displayed cue only or to track them forward until a different level is encountered.

A track is created by a channel whose level does not change through a series of consecutive cues. [Track] creates tracks by pulling channel levels from the previous cue (in Blind mode), or by adding tracks to existing cues (in either Blind or Stage).

Cue levels are usually set live, working in Stage mode. When you first record a series of cues, you typically record the first cue of the sequence. The second cue is built from the first with some of the channels changing, but many remaining the same. The third cue is built from the second and so on, until a major change, such as a black out, is recorded.

This procedure results in many channels being set to a level in one cue and staying at that level for several cues. These *tracks* develop regardless of the record function (Record or Track) you use to record the cues.

In Blind mode, channels levels displayed in white on the screen indicate that the channel has moved to a new level in that cue. This serves as a blocking level when you create a track. Channel levels displayed in green indicate that the recorded level is the same as in the previous cue.

The following examples demonstrate how Track works and compare it to Record. The examples include five cues, each with five channels.

When a channel changes level from one cue to the next it is printed in **bold** on the following pages; tracked channels are printed in regular print. This is similar to how Blind mode displays levels on a color monitor—channels that change intensity are displayed in white; tracked channels are displayed in green.

Using record to create tracks

In Stage mode, the following keystrokes create the five cues illustrated below. Each cue adds channels to the previous cue. The example uses Record to record the cues.

```
Cue 1 [Chan] [1] [Full] [Record] [1] [Enter]
Cue 2 [Chan] [2] [Full] [Record] [2] [Enter]
Cue 3 [Chan] [3] [Full] [Record] [3] [Enter]
Cue 4 [Chan] [1] [At] [2][5] [Chan] [4] [Full] [Record] [4] [Enter]
Cue 5 [Chan] [1] [Thru] [4] [At] [0][0] [Record] [5] [Enter]
```

These keystrokes produce the results illustrated in Figure 1.

	Cue 1	Cue 2	Cue 3	Cue 4	Cue 5
Channel 1	FF	FF	FF	25	00
Channel 2		FF	FF	FF	00
Channel 3			FF	FF	00
Channel 4				FF	00
Channel 5					

Figure 1.

Notice the horizontal tracks developed by keeping a channel at the same level through a number of cues. For example, channel 1 tracks from cue 1 to cue 3. When a channel is not set at any level (such as channel 5 above) it is considered tracked at clear.

Note that channels remain at set levels while you program the series of cues because they are captured and have not been released.

Recording modified cues

The difference between Record and Track is apparent when you modify a cue or insert a new cue between two existing cues. Record and Track produce different results.

The following keys were pressed to release captured channels and playback cue 1.

[Stage] [Rel] [Rel] Release captured channels.
 [Cue] [1] [Go] Playback cue 1.
 [Chan] [1] [At] [5] [0] Modify channel 1 to 50 percent.

With cue 1 in a fader pair, channel 1 is modified to 50 percent. To change a channel level that affects only the cue you modify, use [Record]. Modify the cue; press [Record]; enter the cue number, and press [Enter]. Only the current cue is modified. The track that encompasses the channel is interrupted but continues in the following cues at the originally tracked level.

The results of modifying cue 1 and using [Record] are illustrated in Figure 2.

	Cue 1	Cue 2	Cue 3	Cue 4	Cue 5
Channel 1	50	FF	FF	25	00
Channel 2		FF	FF	FF	00
Channel 3			FF	FF	00
Channel 4				FF	00
Channel 5					

Figure 2.

Note that channel 1 is not affected in cues 2 and 3. Also note that when you record a modified cue that is in a playback fader pair, the changes are reflected in the fader. That is, when you release the channels you have modified, they remain on stage.

If you change the level in the beginning or middle of a track, you may want the change to continue through the remainder of the original track. To *track* the level modification we just recorded in the example above use [Track] instead of [Record] to record channel one as on the previous page. Press [Track], enter cue number, and press [Enter]. If you use [Track] rather than [Record] to record the changes made to the cue illustrated in Figure 1, the results will be as illustrated in Figure 3 (versus the results from using [Record] illustrated in Figure 2).

	Cue 1	Cue 2	Cue 3	Cue 4	Cue 5
Channel 1	50	50	50	25	00
Channel 2		FF	FF	FF	00
Channel 3			FF	FF	00
Channel 4				FF	00
Channel 5					

Figure 3.

The modified level is recorded in the current cue and carries through the entire track (cues 1 through 3).

Inserting cues

If you insert a cue into this sequence, Record and Track produce different results. Record saves changes only in the cue you insert; Track saves the changes you make and tracks them through the following cues.

The following keys were pressed to release captured channels and playback cue 1. With cue 1 in a fader pair, channel 4 is added at 50 percent. The new look is inserted as cue 1.1.

[Stage] [Rel] [Rel] Release captured channels.
 [Cue] [1] [Go] Playback cue 1.
 [Chan] [4] [At] [5] [0] Add channel 4 at 50 percent.
 [Record] [1] [.][1] [Enter] Inserts new look as cue 1.1.

Figure 4 displays the result inserting the cue using [Record]. Notice the new channel is not added to the cues that follow it.

	Cue 1	Cue 1.1	Cue 2	Cue 3	Cue 4	Cue 5
Channel 1	50	50	50	50	25	00
Channel 2			FF	FF	FF	00
Channel 3				FF	FF	00
Channel 4		50	00		FF	00
Channel 5						

Figure 4.

Note that MicroVision enters a level of 00 percent for channel 4 in cue 2. This downfades the channel when cue 2 is played.

When you insert a cue with [Track] new channels track through the cues after it until MicroVision encounters a cue with a level previously recorded for that channel.

Pressing [Track] (rather than [Record] as in the previous example) then [1][.][1] [Enter] to insert and record the same cue 1.1 as above produces the results illustrated in Figure 5. Compare it to the results illustrated in Figure 4, in which the same cue was inserted using [Record] rather than [Track].

	Cue 1	Cue 1.1	Cue 2	Cue 3	Cue 4	Cue 5
Channel 1	50	50	50	50	25	00
Channel 2			FF	FF	FF	00
Channel 3				FF	FF	00
Channel 4		50	50	50	FF	00
Channel 5						

Figure 5.

Channel 4 creates a track from cue after 1.1 until a prerecorded level interrupts it.

Blackout cues and tracking

Sometimes you may add a channel to a sequence of cues that has not used that channel yet. For example, you may want to add a channel to all cues in a scene. To do this, add the channel to the first cue in the sequence, and use Track to track the change through the remaining cues.

To ensure that the newly-added channel does not track through another cue, it is often helpful to construct a blackout cue. The blackout cue prevents the new channel track from running into a different recorded level.

Figure 6 displays what happens when we track channel 5 through the sequence when cue 5 is a regular crossfade cue.

	Cue 1	Cue 1.1	Cue 2	Cue 3	Cue 4	Cue 5
Channel 1	50	50	50	50	25	00
Channel 2			FF	FF	FF	00
Channel 3				FF	FF	00
Channel 4		50	00		FF	00
Channel 5	FF	FF	FF	FF	FF	FF

Figure 6.

Channel 5 tracks through cue 5 and ruins the black out cue.

If cue 5 is a blackout cue, MicroVision records all unused channels in Cue 5 at 00 percent. In the example below, the blackout automatically enters 00 in channel 5, cue 5. When you track a channel through the sequence, the new channel will not track through the blackout cue.

To create a blackout cue, enter these keystrokes:

[Blind] [Cue] [5] [Rem dim] [Rem dim] Selects all channels and sets at a level of 00.
 [Record] [Cue] [5] [Enter] Records blackout cue.

Now when we track channel 5 through the sequence, cue 5 acts as a roadblock for the track. The result is illustrated in Figure 7.

	Cue 1	Cue 1.1	Cue 2	Cue 3	Cue 4	Cue 5
Channel 1	50	50	50	50	25	00
Channel 2			FF	FF	FF	00
Channel 3				FF	FF	00
Channel 4		50	00		FF	00
Channel 5	FF	FF	FF	FF	FF	00

Figure 7.

chapter 5

using print and disk options

This chapter includes instructions for using MicroVision's print and disk options. Each of the following options is explained and illustrated in the following pages.

- Bold printing
- Cue sheet
- Cues
- Patch
- Real time programs
- Stage display
- Submasters

MicroVision is equipped with a 3.5" disk drive on the right front side panel of the console. It allows you to save backup copies of shows on disk. Disk options and disk management are discussed in the section titled *Disk management* on page 84. The following options are described:

- Format disk
- Record show on disk
- Read show from disk

Print Functions

Before you begin printing, verify that your printer is installed correctly and that it is turned on. For instructions on installing printers, see *Chapter 2, Installation*, page 14. Fades in progress pause when reports are printing.

All print options are located on the Print Functions Menu. To display the menu press [Set Up], and select option 8, **Print Functions**. Then press [Enter]. MicroVision displays the Print Functions screen illustrated below.

Grand Master 100%		Print Functions
* 1	Print cues	
2	Print submasters	
3	Print patch	
4	Print stage display	
5	Print cue sheet	
6	Print real time programs	
7	Bold printing [Off]	
8	Abort print	
Select a menu entry, then press [ENTER]		

To print a report:

1. Enter menu option number and press [Enter].
2. Follow prompts that ask for beginning and ending numbers, if any.
3. Press [Enter]. MicroVision sends reports to the printer.

To cancel the print operation, select 8, **Abort print**.

Bold printing

The Bold printing option on the Print Functions Menu enables the Print cues option to print moving channels in bold as moving channels are displayed highlighted in Blind mode. To enable bold printing, follow these steps:

1. Press [Set Up].
2. Select 8, **Print functions**, and press [Enter].
3. Select 7, **Bold printing**, and press [Enter].
4. Select 1 to enable bold printing or 2 to disable bold printing. Then press [Enter].

This option is designed to work with Epson and Epson-compatible printers. Printers that are not Epson compatible may or may not respond to this option. If it does not, set the option to Off.

Cue sheet

The cue sheet report lists all recorded cues. From the Print Functions Menu, select 5, and press [Enter]. Enter the first cue number you want to print, or press [Enter] if you want to print the entire cue sheet. Press [Enter]. If you are selecting a range of cues to print, MicroVision prompts you for the last cue number to print. Enter the last cue number you want, and press [Enter]. MicroVision sends the report to the printer.

See previous page for instructions on enabling and disabling bold printing for moving channels.

To cancel the print operation before MicroVision sends the report to the printer, press [Clear].

MicroVision Lighting Control System				Electronic Theatre Controls			
Cue Sheet							
CUE	1.1	Up	00:07...Down..00:07	Link	1.2	Delay	0:07
CUE	1.2	Up	00:07...Down..00:07	Link	6	Delay	00:07
CUE	6	Up	00:00...Down..00:00	Link	6.1	Delay	00:00
CUE	6.1	Up	00:03...Down..00:03	Link	6.2	Delay	00:03
CUE	6.2	Up	00:03...Down..00:03	Link	6.3	Delay	00:03
CUE	6.3	Up	00:05...Down..00:05	Link	7	Delay	00:05
CUE	7	Up	00:20...Down..00:20	Link	8	Delay	00:20
CUE	8	Up	00:10...Down..00:10	Link	10	Delay	00:10
CUE	10	Up	00:03...Down..00:03	Link	11	Delay	00:03
CUE	11	Up	00:05...Down..00:05	Link	12	Delay	00:05
CUE	12	Up	00:03...Down..00:03	Link	13	Delay	00:03
CUE	13	Up	00:05...Down..00:05	Link	14	Delay	00:05
CUE	14	Up	00:03...Down..00:03	Link	14.1	Delay	00:03
CUE	14.1	Up	00:05...Down..00:05	Link	15	Delay	00:05
CUE	15	Up	00:07...Down..00:07	Link	15.5	Delay	00:07
CUE	15.5	Up	00:10...Down..00:10	Link	16	Delay	00:10
CUE	16	Up	00:03...Down..00:03	Link	17	Delay	00:03
CUE	17	Up	00:05...Down..00:05	Link	18	Delay	00:05
CUE	18	Up	00:02...Down..00:03	Link	19	Delay	00:03
CUE	19	Up	00:10...Down..00:10	Link	20	Delay	00:10

Cues

The cue report prints each cue separately. From the Print Functions Menu, select 1, and press [Enter]. Enter the first cue number you want to print, or press [Enter] to print all recorded cues. If you are selecting a range of cues to print, MicroVision prompts you for the last cue number to print. Enter the last cue number you want, and press [Enter]. MicroVision sends the report to the printer.

To cancel the print operation before MicroVision sends the report to the printer, press [Clear].

```

MicroVision Lighting Control System           Electronic Theatre Controls

CUE  1.1  Up   0:07   Down  0:07  Link  2  Delay 0:07

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
FF FF FF FF FF 75 75 75 75 75
                                     21 21

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75
21 21 21 21 21 21

76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96
55 55 55 55 55 99 55 55 55 95 95 95 95 95 50 50 50 50

```

Real time programs

From the Print Functions menu, select 6, and press [Enter]. MicroVision prints a report of all recorded real time programs on one sheet.

MicroVision Lighting Control System		Electronic Theatre Controls			
Clock					
Program :	Start Cue	Time On	Time Off	Days Of Week	
:	1	14:52	16:32	Su Mn Tu	Tr
:	15	00:25	01:03	Su Tu	Tr Sa
:	2	18:36	18:40		Tr Fr Sa
:					

Patch

The softpatch report lists current dimmer-to-channel patches. When you select the Patch option MicroVision sends the report to the printer immediately. No options are available for this report. From the Print Functions menu, select 3, and press [Enter].

MicroVision Lighting Control System

Electronic Theatre Controls

Patch

Chn: Dimmer / Levels

```
-----  
: 01: 110 136  
: 02: 109 137  
: 03: 121 122 144  
: 04: 120 145  
: 05: 117 128  
: 06: 142 152  
: 07: 56  
:
```


Disk management

MicroVision's disk drive lets you save up to five shows per standard 3.5" computer disk. This allows you to work on more than one show at a time or to use more than 200 cues for your production by loading a second show into memory after the first 200 cues.

We recommend that you make two backup copies of each show on separate disks and keep them in different locations. If your show disk were damaged, a backup disk stored at home could save you hours of work. MicroVision clears fader pairs when you read a show from disk into the console.

Before you can use a disk in MicroVision, you must format it on the console. Formatting instructions are on the following page.

Note: MicroVision can read shows from a Vision disk, and Vision can read shows from a MicroVision disk. However, you cannot record MicroVision shows on disks formatted in a Vision, nor can you record a Vision show on a MicroVision disk.

MicroVision will not read a disk recorded on an Electronic Theatre Controls' Expression, Impression, Concept or Insight console. Likewise, those consoles cannot read a disk recorded on a MicroVision console.

Storing disks

Computer disks are somewhat fragile, magnetic devices for storing your work. Therefore, we suggest the following disk storage and handling practices to ensure that your work is not lost as a result of disk damage.

- Store disks at a temperature between 50 and 140 degrees Fahrenheit.
- Keep disks away from magnets, magnetized objects or heavy electrical equipment. Some large lighting equipment may damage disks.
- Do not touch the magnetic disk inside the plastic disk case.
- Do not eat, drink or smoke when you handle disks.

Formatting disks

Before you can use a disk in an MicroVision, you must format it on a MicroVision console. Disks formatted on other Electronic Theatre Controls consoles or on a standard personal computer do not work in MicroVision. To format a disk, follow these steps:

Warning: Formatting a disk erases all information recorded on it. Formatting does not affect show in console.

1. Press [Set Up].
2. Insert standard 3.5" double sided, double density disk in disk drive.
3. Select 3, **Format disk**, and press [Enter].
4. To format the disk, press [Enter]. To cancel the format command, press [Clear].

Warning: When you select this option, any fades in progress stop; you cannot restart them except by reselecting cues from Stage and pressing [Go] again.

Recording a show on disk

To record a show from memory to a disk follow these steps:

1. Insert a formatted disk in disk drive.
2. Press [Set Up] to display the Set Up Menu.
3. Select 1, **Write show to disk**, and press [Enter].

If any shows are currently recorded on disk, the screen displays the message, **Recorded**, or the date recorded if you have a Real Time Clock. If no shows are recorded on disk, MicroVision displays the message, **Not recorded**.

4. Select desired show (one through five) and press [Enter]. If the show number you select is already recorded, the new show will overwrite the old show.

Or, press [Clear] to cancel the operation.

Reading a show from disk

When you read a show from a disk and load it into memory, the new show overwrites the current show in the board. Therefore, if you want to keep the current show, follow the instructions on the previous page to record current show before you read a new show from disk.

Current submaster and cue output levels are not affected when you read a new show into the console from a disk.

Live submasters remain on stage until you pull their pots to zero. Moving submaster pots up again loads a submaster from the new disk. On a color monitor, submasters from the previous show are displayed in green. Once loaded, the new submasters are displayed in yellow. Loading a new show automatically loads submaster page one from the new show.

When a new show is read from disk, cues loaded in the fader pairs remain in the faders until you remove or replace them. Press [Clear] to remove them, or replacing them by loading a new cue.

To read a show from disk into memory follow these steps:

1. Insert disk in disk drive.
2. Press [Set Up] to display the Set Up Menu.
3. Select 2, **Read show from disk**, and press [Enter].

MicroVision displays the message, **Not recorded**, for shows that are not yet recorded on the disk.

4. Select desired show and press [Enter]. The show you enter will overwrite the current show in memory.

Or, press [Clear] to cancel the operation.

chapter 6

accessories

This chapter includes instructions for working with the following MicroVision optional accessories:

- Real Time Clock
- Remote Go

For accessory installation instructions, see *Chapter 2, Installation*. For purchase information, please contact your local dealer or Electronic Theatre Controls.

Real Time Clock

The Real Time Clock option allows you to program cues to playback in real time, that is to playback automatically at any time of day, on any day of the week. For example, you might program the work lights to come on for a choir rehearsal between 7 p.m. and 9 p.m. on Monday and Wednesday. Or, you might want to warm the filaments of your studio instruments 15 minutes prior to your news program.

The Real Time Clock also displays the current time under the display mode label and date-stamps shows when you record them on disk.

You can record up to 10 real time programs in MicroVision. This section includes instructions for creating real time programs and setting the real time clock. The Real Time Clock is an optional accessory that must be installed at the factory.

This section includes instructions on:

- Setting real time clock
- Creating real time programs
- Enabling and disabling real time clock
- Deleting real time programs

Setting Real Time Clock

Follow these steps to set Real Time Clock:

1. Press [Set Up] to display Set Up Menu.
2. Select 9, **Options**, and press [Enter]. MicroVision displays the following screen:

```
Grand Master 100%      Option      Release 1.1
                       10:30*

1   Reserved
2   Remote go [Off]
3   Remote submasters [Off]
4   Analog readbacks [Off]
5   Real time clock

Select a menu entry, then press [ENTER]
```

** Note: Current time is displayed here when Real Time Clock option is installed.*

3. Select 5, **Real time clock**, and press [Enter]. MicroVision displays the following screen.

```
Grand Master 100%  Real Time Clock
                   10:30*

1   Edit real time programs
2   Set real time clock
3   Enable/disable real time programs

Select a menu entry, then press [ENTER]
```

4. Select 2, **Set real time clock**, and press [Enter]. MicroVision displays the following screen:

```
Grand Master 100%  Set Real Time Clock      Time 10:30*

                               Time      00:00
                               Date      23 Aug 90
                               Weekday   Thursday

Enter current time (HH:MM, 24 hour clock), then press [ENTER]
```

5. At Time prompt, enter current time in military format. For example, enter 8:00 a.m. as 08:00 and 5:15 p.m. as 17:15. Press [Enter].
5. At Date prompt, enter current date (1 through 31), then press [Enter]. Next, enter one of the following month codes, and press [Enter].

1 - January	7 - July
2 - February	8 - August
3 - March	9 - September
4 - April	10 - October
5 - May	11 - November
6 - June	12 - December

7. Enter current year (1 through 99), then press [Enter]. For example, enter 91 for 1991.
8. At Weekday prompt, enter one of the following codes to indicate the current day of the week, then press [Enter].

1 - Sunday	5 - Thursday
2 - Monday	6 - Friday
3 - Tuesday	7 - Saturday
4 - Wednesday	
9. Press [Rec] to set new time and return to options menu. Or, press [Clear] to return to Time prompt.

Creating or editing real time programs

1. Press [Set Up] to display the Set Up Menu.
2. Select 9, **Options**, and press [Enter]. MicroVision displays the following screen.

```
Grand Master 100%      Options      Release 1.10
                       10:30*

1   Reserved
2   Remote go {Off}
3   Remote submasters {Off}
4   Analog readbacks {Off}
5   Real time clock

Select a menu entry, then press [ENTER]
```

** Note: Current time is displayed here when Real Time Clock option is installed.*

3. Select 5, **Real time clock**, and press [Enter]. MicroVision displays the following screen.

```
Grand Master 100%  Real Time Clock
                   10:30*

1   Edit real time programs
2   Set real time clock
3   Enable/disable real time programs {On}

Select a menu entry, then press [ENTER]
```

4. Select 1, **Edit real time programs**, and press [Enter]. MicroVision displays the following screen.

```

Grand Master 10C#   Real Time Clock   Program 1**
                   10:30*

Program Start cue   Time on Time off   Days of week

* 1
  2
  3
  4
  5
  6
  7
  8
  9
 10

Select a real time program, then press [ENTER]

```

5. Enter a program number (1 through 10), and press [Enter].
6. Enter the cue number you want real time program to play. Press [Enter].
7. Enter the time you want console to playback cue. Enter time in military format. For example, enter 8:00 a.m. as 08:00 and 5:15 p.m. as 17:15. Press [Enter].
8. Enter the time you want console to fade cue out. Enter time in military format.

Hint: You can use [Cue] to enter or change cue numbers and [Time] to enter or change on and off times.

8. At the days of the week prompt, enter one or more of the following codes to indicate on which days the cue should run.

To run a cue on more than one day of the week, use [And] and [Thru] to select a group of days. For example, to enter Monday through Wednesday and Saturday, enter: [2] [Thru] [4] [And] [7].

1 - Sunday	5 - Thursday
2 - Monday	6 - Friday
3 - Tuesday	7 - Saturday
4 - Wednesday	

9. Press [Enter] to record the program.

Real time programs must be enabled to function as programmed. See following section for instructions on enabling and disabling real time programs.

Enabling/disabling real time programs

Follow these steps to enable or disable real time programs you have recorded:

1. Press [Set Up] to display the Set Up Menu.
2. Select 9, **Options**, and press [Enter]. MicroVision displays the following screen.

```

Grand Master 100*      Options      Release 1.10
                      10:30*

1   Reserved
2   Remote go [Off]
3   Remote submasters [Off]
4   Analog readbacks [Off]
5   Real time clock

Select a menu entry, then press [ENTER]

```

** Note: Current time is displayed here when Real Time Clock option is installed.*

3. Select 5, **Real time clock**, and press [Enter]. MicroVision displays the following screen.

```

Grand Master 100*  Real Time Clock
                  10:30*

1   Edit real time programs
2   Set real time clock
3   Enable/disable real time programs [On]

Select a menu entry, then press [ENTER]

```

4. Select 3, **Enable/disable real time programs**. MicroVision displays the following screen.

```
GrandMaster 100* Real Time Clock
                  10:30*

1   Enable real time programs
2   Disable real time programs

Select a menu entry, then press [ENTER]
```

5. Select 1, **Enable real time programs**, to enable real time programs, or 2, **Disable real time programs**, then press [Enter] to record your choice.

Deleting real time programs

Follow these steps to delete real time programs:

1. Press [Set Up] to display the Set Up Menu.
2. Select 9, **Options**, and press [Enter]. MicroVision displays the following screen.

```
Grand Master 100%      Option      Release 1.10
1   Reserved
2   Remote go  (Off)
3   Remote submasters {Off}
4   Analog readbacks  (Off)
5   Real time clock

Select a menu entry, then press [ENTER]
```

** Note: Current time is displayed here when Real Time Clock option is installed.*

3. Select 5, **Real time clock**, and press [Enter]. MicroVision displays the following screen.

```
Grand Master 100%  Real Time Clock
1   Edit real time programs
2   Set real time clock
3   Enable/disable real time programs

Select a menu entry, then press [ENTER]
```

4. Select 1, **Edit real time programs**, and press [Enter]. MicroVision displays the following screen.

Grand Master 100%	Real Time Programs	Days 2**		
	10:30			
ProgramStart cue	Time on	Time off	Days of week	
1	1	13:30	14:30	*Sun Mon
2				
3				
4				
5				
6				
7				
8				
9				
10				
Select a real time program, then press [ENTER]				

*** Indicates that two days are entered in days of the week. This part of the screen contains Real Time programming information.*

5. Enter a program number (1 through 10), and press [Enter].
6. Press [Clear] to delete the program.
7. Press [Setup] again to return to the Setup Menu.

Remote Go

Remote Go enables you to control up to seven MicroVision functions from a remote location.

Electronic Theatre Controls provides the internal circuitry and the back panel connector for Remote Go. You must provide the remote control unit itself, as well as appropriate cable and connectors.

You can activate Remote Go functions with a momentary closure switch. This switch will often be a push button on a stage manager's remote control panel.

Remote Go functions are described below.

Cue 1	Selects Cue one.
AB Go	Loads selected cue to AB fader pair and plays cue.
CD Go	Loads selected cue to CD fader pair and plays cue.
Back	Plays the previously numbered cue in the AB fader pair.
Plus	Selects the next cue in numerical sequence.
AB Hold	Stops fade in progress in AB fader pair.
CD Hold	Stops fade in progress in CD fader pair.

chapter 7

reference

This reference chapter lists all MicroVision keys, features and menu options in alphabetical order. Listings include a description of the feature and instructions for using it.

For more instructions on using MicroVision to create shows, cues and submasters, and instructions on tracking see *Chapter 4, Tutorial*.

And

[And] allows you to select a set of channels, cues or dimmers that has a break in the numerical sequence. You can then enter an intensity level for the set. For example, you can select channels 1 and 7 and 9.

You can also use [And] in conjunction with [Thru] to select a set such as 1 through 10 and 15 through 20.

To select a discontinuous set of cues or channels follow these steps:

1. Press [Chan] or [Cue] (whichever you are selecting).
2. Enter a channel or cue number.
3. Press [And].
4. Enter a second channel or cue number.

Hint: You can combine the use of [And] and [Thru]. For example, [1] [And] [5] [Thru] [9].

Example

[Chan] [1] [And] [5] selects channels one and five.

At

[At] indicates that the next number entered will be an intensity level for selected channels.

You can also use the fader wheel or [Full] to set intensity levels.

1. Select channels.
2. Press [At] to indicate that next number entered will be an intensity level setting.
3. Enter a two-digit intensity level setting for selected channels. Or, if you prefer to enter levels on a scale of 1 to 10 (for example, 1 = 10 percent, 2 = 20 percent, etc.) enter a one-digit level and press [Enter].

Hint: It is not necessary to use [At] before pressing [Full] or moving the fader wheel.

Examples

[At] [5][0] or [At] [5] [Enter] sets selected channels at 50 percent.

Back

After you play a cue, [Back] lets you automatically replay the cue that precedes it on the cue sheet. This is a handy feature to use for bows or similar situations.

For example, assume you have recorded cues one, two and three. If you play cue one and then cue two, pressing [Back] brings up cue one again. But, if you play cue one and then cue three, pressing [Back] will bring up cue two because it is immediately before cue three on the cue sheet. Pressing [Back] after playing the first cue on the cue sheet fades all outputs to zero.

[Back] uses the AB fader pair and the default fade times to replay the cue, regardless of the cue's recorded fade times. For example, assume you play back cue one, then playback cue two. Pressing [Back] replays cue one in the AB fader. Pressing [Back] after playing the first recorded cue fades all outputs to zero.

Caution: Pressing [Back] clears the CD fader pair.

Example

[Cue] [1] [Go] [Go] [Back] plays back cue one, cue 2 then replays cue 1.

Black out

[Black out] forces all channels to a zero intensity level. All dimmers immediately black out. MicroVision displays the message **Black out** in flashing letters in the upper left hand corner of the console.

To restore channel settings, press [Black out] again.

All stage fixtures remain off until you release the black out. However, you retain control of the console while in black out; you can create or edit any cues or submasters.

Examples

[Black out] sets all channels on stage to zero. [Black out] second press restores channels to previous levels.

Blind

Blind is a display mode that allows you to create, preview or edit cues and submasters without affecting live fixtures. If you want live control of dimmers, use Stage mode.

When you press [Blind], MicroVision displays the following screen:

Grand Master 100%										Blind										Cue 5					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96					
Select cue number										Cue		Up/Down		Link		Delay									
										1		0:05		1.2		0:05									
										1.2		0:05		3		0:05									
										2		0:05													
										3		0:05													
										5		0:05													
Cue 5										Cues remaining : 195															
Up 0:05										Down 0:05															
A Fader				B Fader				C Fader				D Fader													

In Blind you can perform some actions that you cannot perform in Stage. For example, you can clear cues and submasters. See the section titled *Clear* for instructions on clearing cues.

Note: You must record your work in Blind before selecting a different display mode. If you press [Stage] before recording a look in Blind, you will lose your work.

Bump switches

Bump switches immediately push submasters to 100 percent and hold them at that level for as long as you press the bump switch.

Recording submaster by using bump switches

You may also use bump switches to indicate in which submaster you want to record a current look. To record a submaster using the bump switch, follow these steps:

1. In either Stage or Blind mode, create a look.
2. Press [Record] to indicate that you want to save the look.
3. Press the bump switch of the submaster in which you want to record the look. Then press [Rel] to release captured channels.

Captured channels

Captured channels are channels that you have selected and are live on stage. They remain live until you press [Rel] to release them. **Captured channels override all other channel settings** except the Grand Master. For example, if a channel is in a fader at 100 percent and you capture it and set it to 50 percent, MicroVision reads the 50 percent setting.

You can capture channels while in Stage mode, but not in Blind mode since it is not live. MicroVision displays captured channels in either red or yellow on a color monitor. Red channels are captured; yellow channels are captured *and* selected. The message **Captured channels** appears next to the mode label when channels are captured in Stage mode.

Selected channels are channels that you have immediate keyboard control over. You can modify selected channels' levels with [Full], [At], [+], [-], or the fader wheel. You can select channels in all display modes. Selected channels are highlighted on a monochrome monitor and are displayed in yellow on a color monitor.

Selected, captured channels are live channels that are under immediate keyboard control. You can *select* channels in Blind, but they won't be captured since Blind mode is not live.

Chan

[Chan] allows you to select channels in all display modes. Pressing [Chan], indicates that the next number entered will be a channel number.

Pressing [Chan] [Enter] selects all channels with a current output level greater than zero. This feature makes it easy to proportionally modify all channels in a particular cue.

Once channels are selected, you have immediate keyboard control over channel levels. You can use [Full], [At], [+], [-], or the fader wheel to set desired levels.

Selecting channels in Stage and Blind

To select channels in Stage or Blind modes follow these steps:

1. Select a display mode.
2. Press [Chan].
3. Enter the channel number you want to select, or if you are selecting a set or range of channels, enter the first channel in the range.
4. If you are selecting a set or a range of channels, use the [And] and [Thru] keys to select channels.

MicroVision highlights selected channels.

Clear

The [Clear] key's primary function is to delete cues and tracks and clear submasters. You can also delete channel tracks using [Clear]. Occasionally an error message may prompt you to press [Clear].

You can also use [Clear] to clear an incorrect level setting and reset it to zero. To do so, select channels and press [At] [Clear].

Deleting a cue

To delete a cue, follow these steps:

1. Press [Blind]. You must be in Blind to delete cues.
2. Press [Cue].
3. Enter the cue number you want to delete.
4. Press [Clear].
5. Press [Record] to delete cue. Or, press [Cue] or [Sub] to restore it.

Clearing channel to extend a track

[Clear] allows you to clear levels from selected channels in a cue, so that levels from the previous cue will be pulled into the displayed cue. If the selected channels were providing new levels that were tracking through subsequent cues, levels from the previous cue will now provide those levels. To extend a track, follow these steps:

1. Press [Blind] and enter cue number from which you want to modifying.
2. Select channels you want to clear.
3. Press [At] [Clear].
4. Press [Track] [Enter] to clear the selected channels and their tracked levels through subsequent cues.

Resetting channels to zero

To set channels to zero, follow these steps:

1. Select channels.
2. Press [At].
3. Press [Clear].

Examples

[Blind] [Cue] [1] [Clear] [Record] deletes cue 1.

[Blind] [2] [Chan] [1] [At] [0] [0] [Track] [Enter] deletes channel one from cue two and remaining track.

[Chan] [5] [At] [Clear] sets channel five at zero.

Clear all cues

The **Clear cues** option on the Set Up Menu clears all cues from memory. It does not clear submasters, submaster pages, softpatch or system settings. To use the option, follow these steps:

1. Press [Set Up].
2. Select 4, **Clear all cues**, and press [Enter].
3. Press [Enter] to clear cues, or [Clear] to cancel.

Clear all submasters and submaster pages

The **Clear all submasters and submaster pages** option on the Set Up Menu allows you to clear all recorded submasters on all pages without affecting cues or softpatch. Follow these steps to clear submasters:

1. Press [Set Up].
2. Select 5, **Clear all submasters and submaster pages**, and press [Enter].
3. Press [Enter] to delete submasters, or [Clear] to cancel.

Clear fader pairs

The [Clear] keys above the fader pairs clear all cue information from faders. To clear the AB fader, press the [Clear] key above that fader pair. To clear the CD fader pair, press the [Clear] key above that fader pair.

Clear system

The Clear system option erases all cues and submasters and resets softpatch to its factory default settings. Other system settings, such as output protocol, analog readbacks and monitor color are not reset.

Warning: When you initiate Clear system, all show data stored in MicroVision is lost. Save the current show on disk if you do not want to permanently lose all show information.

The Clear system option is included on the System Settings Menu. Follow these steps to initiate the system clear option:

1. Press [Set Up] to display the Set Up Menu.
2. Select 6, **Clear system**, and press [Enter].
3. Press [Enter] to clear the current show from the console memory. Or, press [Clear] to cancel the action.

Example

[Set Up] [6] [Enter] [Enter] clears system.

Cue

[Cue] allows you to select a cue to display in Blind mode or to playback in Stage mode. Pressing [Cue] indicates that the next number entered will be a cue number.

Displaying cues in Blind

To display a cue in Blind mode, follow these steps:

1. Press [Blind].
2. Press [Cue].
3. Enter cue number you want to display. MicroVision displays the channel settings for the cue. Channels are not live.

Channels that were used in the previous cue, but are not included in current cue are displayed with a zero level to indicate a downfade from the previous cue.

Selecting cues in Stage

To select a cue to playback in Stage, follow these steps:

1. Press [Stage].
2. Press [Cue].
3. Enter cue number you want to playback next. MicroVision moves the cue you enter to the top of the cue sheet and highlights it.
4. Press either [Go] key. Cue plays back. To avoid fadetimes, pull fader pair controls down to **0** and back to **10**.

Numbering cues

MicroVision has a 200 cue limit per show. However, you can number cues from .1 to 999.9, using up to one decimal place .

Examples

[Blind] [Cue] [1] displays cue 1 in Blind.

[Stage] [Cue] [1] [Go] brings cue 1 up on stage.

Delay time

To change the delay time for linked cues, follow these steps:

1. Press [Cue], and enter the first cue in the link.
2. Press [Link] twice.
3. Enter the delay time in minutes and seconds either in minutes and seconds or with a fraction of a second in decimal format. For example, all of the following are acceptable: .2, 00:12, 5.5, 5:30. Delay time can be as long as 99:59.
4. Press [Enter].

Example

[Cue] [1] [Link] [Link] [5] [Enter] enters a delay time of five seconds for cue 1, when cue 1 is already linked to another cue.

Enter

[Enter] functions as an Enter key does on most computer keyboards. It indicates that you have finished entering a number or have completed an operation. The operator prompt line indicates when you should use this key.

Fader wheel

The fader wheel gives you incremental proportional control of selected channels' intensity levels. When selected channels are displayed on your screen, regardless of what mode MicroVision is in, you can move the fader wheel to increase or decrease level settings.

Full

[Full] enters full intensity for all selected channels. [Full] works in all display modes. When you use [Full], you do not have to press [At].

Examples

[Chan] [5] [Thru] [1][0] [Full] sets channels 5 through 10 at 100 percent.

Go

The [Go] keys initiate the playback of cues. When you press a [Go] key, the cue highlighted on the cue sheet begins playing back in the fader pair.

If you have pressed [Hold] to interrupt the playback of a cue, press [Go] to resume the fade.

Hint: To go to a cue out of sequence, press [Cue], enter the cue number, and press [Go]. To push the levels to their full recorded levels immediately (avoiding the fade time), push fader controls to 0 and back up to 10.

Example

[Cue] [5] [Go] plays back cue 5. [Go] plays back the top cue on the cue sheet.

Grand master

The grand master pot controls all channels and overrides all other controls except [Black out]. Normally the grand master is set at 10 (100 percent) so that all channels operate at 100 percent of their set levels. When the grand master is set at a level less than **10**, channel output equals current settings multiplied by the percentage level at which that the grand master is set. The grand master setting is displayed in the upper left corner of the screen.

Help

[Help] provides a brief explanation for all available keys. To display help screens:

1. Press [Help].
2. Press any key on the console. MicroVision displays a description of the key you pressed.

Help screens are not available for menu options.

3. Press any key to clear the help message from the screen.

Example

[Help] [Set Up] displays the Set Up Help screen.

Hold

[Hold] stops the playback of the cue in the fader pair above the [Hold] key. To resume the playback, press [Go]. To cancel the playback, press [Hold] again. The faders hold current levels until you play another cue or clear the fader pair.

Example

[Cue] [1] [Go] [Hold] begins playing back cue 1 and then puts it on hold.

Link

[Link] joins two or more recorded cues to one another so that they playback automatically in the sequence you link them. Each cue in the link counts as one cue in the 200 cue limit.

To link cues, follow these steps:

1. In either Stage or Blind, press [Cue].
2. Enter number of first cue you want in linked sequence.
3. To link cue to another cue, press [Link]. Then enter number of second cue in linked sequence.
4. Press [Link] again to enter desired delay time. Enter the delay time in minutes and seconds either in minutes and seconds or with a fraction of a second in decimal format. For example, all of the following are acceptable: .2, 00:12, 5.5, 5:30. Delay time can be as long as 99:59.

The delay time is the length of time between the beginning of a cue and the beginning of the cue to which it is linked. MicroVision calculates and enters a default delay time. The default delay time is the total running time of the previous cue in the sequence.

The total running time is whichever is longer of the upfade and the downfade times. The default delay time plays the entire first cue, and then plays the second cue immediately afterward.

5. To link more than two cues, repeat steps two through five for each link.

Note: To change the delay time for a cue that is already linked to another cue, select the first cue in the link, press [Link] twice, enter the delay time, and press [Enter].

Deleting links

To delete link information from a cue, follow these steps:

1. In either Stage or Blind, press [Cue].
2. Enter number of first cue from which you want to delete link information, and press [Link] [Clear].

Example

[Cue] [1] [Link] [2] [Link] [5] [Enter] links cue 1 to cue 2 with a five second delay time between the cues.

[Cue] [1] [Link] [Link] [6] [Enter] changes the delay time to six seconds.

[Cue] [1] [Link] [Clear] clears link information from Cue 1.

Minus (-)

The minus key [-] decreases the value of a highlighted number by one. The value could be a channel number, a cue number, a level setting, or any other type of number that is highlighted on the screen. The plus key [+] increases the value of a highlighted number by one.

For example, when you are selecting channels, press [-] to highlight the preceding channel (or [+] to highlight the next channel). Or once you have selected the channels you want, press [At] to indicate that you are entering levels. Then use [-] and [+] to adjust the level one point at a time.

Shortcut: To select all channels with the minimum keystrokes, press [Chan], [1], [Thru], [-]. This selects all channels from one to the channel before it, which MicroVision reads as the last channel.

Example

[Chan] [1] [At] [-][-][-] decreases channel one's intensity level one point at a time.

Page

MicroVision has five pages of submasters. Each page can hold six submasters.

MicroVision displays the message **Submaster Page: 1** on the Submaster/cue description line to indicate which page is currently active. To switch pages, press [Page], and enter the new page number. The message indicates the new page number.

Any submasters set at a level above zero when you load a new page remain on stage until you pull them down to zero. MicroVision indicates that a submaster is recorded in a page other than the currently loaded page by displaying and highlighting the page number under the submaster number.

Submasters from the new page are not loaded until you pull the pot down to zero. The Submaster/cue display line indicates from which page each submaster on stage was loaded. For example, you might have submaster 1 loaded from page 3, submaster 2 from page 3, et cetera.

[Page] also allows you to create a submaster while one page is loaded, and to record it on another submaster page. To do so, follow these steps:

1. Create a look.
2. Press [Record].
3. Press [Page], and enter the page number you want the submaster recorded on.
4. Press the submaster bump switch in which you want to record look.

Example

[Record] [Page], entering page number, and pressing a bump switch records a submaster on the submaster page you designate.

Patch

[Patch] displays the softpatch setup screen. The softpatch setup screen allows you to assign dimmers to channel numbers. The softpatch screen is illustrated below. For complete instructions on softpatching, see *Chapter 3, Entering softpatch*.

Grand Master 100%		Softpatch								Dimmer 361
Chan	Dimmer Level %									
01	1 95%	61	121	181	241	301	361	421	481	
			52%	52%	52%	52%	52%			
02	2 95%	62	122	182	242	302	362	422	482	
03	3 95%	63	123	183	243	303	363	423	483	
04	4 95%	64	124	184	244	304	364	424	484	
05	5 95%	65	125	185	245	305	365	425	485	
06	6 95%	66	126	186	246	306	366	426	486	
Select dimmer numbers, then press [ENTER]										

Plus (+)

The plus key [+] increases the value of a highlighted number by one. The value could be a channel number, a cue number, a level setting, or any other type of number that is highlighted on the screen. The minus key [-] decreases the value of a highlighted number by one.

For example, when you are selecting channels, press [+] to highlight the next channel (or [-] to highlight the preceding channel). Or, once you have selected the channels you want, press [At] to indicate that you are entering levels. Then use [-] and [+] to adjust the level one point at a time.

Example

[Chan] [1] [At] [+] [+] [+] [+] increases channel one's intensity level one point at a time.

Potentiometers (Pots)

Potentiometers, commonly referred to as *pots*, are sliding fader controls.

The AB and CD fader pairs and the Grand Master are potentiometers. These pots have special functions on MicroVision and are described in separate sections of this chapter, *Timed fader pairs* and *Grand Master*.

Numbers next to submaster pots indicate the percentage of the recorded levels at which the submaster is set. Scale numbers are divided by 10. For example, if pot is set at **5**, the submaster is output at 50 percent of recorded levels.

Power

MicroVision's power switch is located on the console's back panel. We recommend that you turn the console power switch to the **OFF** position before you plug or unplug the power cable.

Record

[Record] indicates that you want to save a look that is currently on stage or on the screen as a cue or submaster. When you record a cue using [Record], levels are recorded only in the specified cue.

When you press [Record], MicroVision assumes that you want to save the look as a cue. To record a look as a cue or submaster, follow these steps:

1. Press [Record].
2. To record the look as a cue, enter the cue number.

To record the look as a submaster, press [Sub] and enter submaster number.
3. Press [Enter].

Note: If you record a modified cue that is in a playback fader pair, the changes are reflected in the fader. That is, when you release the channels that you modified, the changes remain on stage.

Example

[Record], entering number, [Enter] records current look as a cue.

Rel

[Rel] releases captured channels. Captured channels are live channels that you have selected in Stage mode. Captured channels may or may not be under direct control of the keyboard.

When you press [Rel], MicroVision first releases captured channels that are under direct keyboard control (selected channels). If you press [Rel] again, MicroVision releases all remaining captured channels.

Captured channels always take precedence over other controls. For example, assume a channel is included in a submaster which sets it at 75 percent. If you capture the same channel and set it to 50 percent, the 50 percent setting takes precedence. When you release it, it returns to the level determined by other outputs.

Note: You can release a subset of all captured channels by selecting the channel(s) and pressing [Rel]. Other channels remain captured.

Rem Dim

[Rem Dim] lets you select a channel or a group of channels and suppress all others to a level of zero. [Rem Dim] is useful for selecting part of a look currently displayed on your screen (in any mode) and recording only that portion.

You may also want to use [Rem Dim] to isolate a subset of a live look to readjust or refocus those channels without the other channels interfering.

[Rem Dim] also allows you to record a blackout cue by setting all channels to zero.

Using [Rem Dim] in Stage

1. Select the channels you want to isolate.
2. Press [Rem Dim]. Selected channels remain at current levels; all other channels are suppressed to zero.
3. Now you can work with the selected channels live, save them as a cue or submaster, or use them as you would any other set of selected channels.
4. Press [Rel] to return channels to levels set in fader pair, or [Rem Dim] again to set all channels to zero.

Using [Rem Dim] in Blind

1. Select a subset of the current channels displayed.
2. Press [Rem Dim]. All unselected channel levels are automatically reset to zero.
3. You can now save the selected channels as a cue or submaster.

Using [Rem Dim] to create a blackout cue

A blackout cue has two useful functions. One it downfades all channels in the fader pair through which you play it back. And secondly, a blackout cue acts as a roadblock for tracks when you use the Track record function.

1. Press [Blind].
2. Press [Rem Dim] twice. This sets all channels at zero.
3. Press [Rec], enter cue number, and press [Enter].

Examples

[Stage] [Chan] [1] [Thru] [5] [Rem Dim] set all channels except 1 through 5 to zero.

[Blind] [Cue] [3] [Chan] [1] [Thru] [5] [Rem Dim] sets all channels except 1 through 5 to zero.

[Blind] [Rem Dim] [Rem Dim] [Rec] [5] records cue 5 with all channels set at zero.

Setup

[Setup] displays the Setup Menu, which is illustrated below. The Setup Menu provides access to disk options, system settings, print functions, and clear cues, clear submaster and clear system options.

Each of these features is described in detail elsewhere in this manual. The following table indicates where each is located.

Grand Master 100%		Setup
*	1	Write show to disk
	2	Read show from disk
	3	Format disk
	4	Clear all cues
	5	Clear all submasters and submaster pages
	6	Clear system
	7	System settings
	8	Print functions
	9	Options
Select a menu entry, then press [ENTER]		

Disk options	<i>Chapter 5, Using print and disk options, page 76.</i>
Clear all cues	<i>Chapter 6, Reference, page 114.</i>
Clear System	<i>Chapter 6, Reference, page 117.</i>
Clear all submasters	<i>Chapter 6, Reference, page 115.</i>
System settings	<i>Chapter 3, Entering softpatch, 17.</i>
Print functions	<i>Chapter 6, Reference, page 143.</i>
Clear cues and submasters	<i>Chapter 5, Using print and disk options, page 76</i>
from memory	<i>Chapter 6, Reference, page 103.</i>
Print functions	<i>Chapter 5, Using print and disk options, page 76.</i>
Options	<i>Options are described in MicroVision Options Manual.</i>

Stage

Stage mode gives you live control of all channels. The Stage mode screen displays the final output level for all channels. The levels displayed on Stage take into account: recorded submaster levels, pile-on submaster settings, cues loaded in fader pairs, captured channels, and grand master setting. A Stage mode screen is displayed below.

Grand Master 100%										Stage										Channel				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
65	65	65	65	65	65	65	65	65	65	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96				
30	30	30	30	30						30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Select channel number															Cue	Up/Down	Link	Delay						
															1	0:05								
															1.2	0:05	1.2	0:05						
															2	0:05								
															3	0:05	3	0:05						
Submaster															1	2	3	4	5	6				
Page : 1															1	1	1			1				
A Fader					1	B Fader					C Fader					D Fader								
5.0					01%	5.0					01%													

Sub

Pressing [Sub] indicates that the next number entered will be a submaster number. You may want to select a submaster to display it in Blind, or you might use [Sub] when you save a look in a submaster.

Press [Sub] and then the submaster number you wish to select.

For detailed instructions on working with submasters, see *Chapter 4, Tutorial*.

Example

[Blind] [Sub] [1] displays submaster 1 on the Blind mode screen.
[Record] [Sub] [2] records the current look as submaster 2.

System Settings Menu

The System Settings Menu includes options for setting default softpatch, softpatch customizing options and system configuration options. The chart on the next page indicates where each menu option is described in the manual.

To display the System Settings Menu, follow these steps:

1. Press [Set Up].
2. Select 7, **System settings**, and press [Enter]. The System Settings Menu is displayed below.

Grand Master 100%		System Settings
* 1	Number of dimmers	
2	Number of channels	
3	Select default softpatch	
4	Digital protocol [DMX-512]	
5	AMX192 [Off]	
6	Analog outputs [64]	
7	Color/monochrome monitor [Mono]	
Select a menu entry, then press [ENTER]		

System settings options

Number of channels	<i>Chapter 3, Entering softpatch, page 19, 21.</i>
Number of dimmers	<i>Chapter 3, Entering softpatch, page 19, 21.</i>
Select default softpatch	<i>Chapter 3, Entering softpatch, page 19.</i>
Dimmer selection	<i>Chapter 2, Installation, page 11.</i>
Color/monochrome monitor	<i>Chapter 2, Installation, page 9.</i>

Thru

[Thru] allows you to select a range of channels or cues. You can then enter an intensity level for the entire range at one time. For example, you can select channels 1 through 10.

You can also use [Thru] in conjunction with [And] to select a set such as 1 through 10 and 15 through 20.

To select a range of cues or channels follow these steps:

1. Press [Chan] or [Cue] (whichever you are selecting).
2. Enter a cue or channel number.
3. Press [Thru].
4. Enter another cue or channel number. MicroVision selects the entire range.

Example

[Chan] [1] [Thru] [5] [And] [1][0] selects channels 1 through 5 and 10.

Timed fader pairs

The AB and CD fader pairs are timed faders (potentiometers) through which MicroVision plays back recorded cues.

To playback the highlighted cue in the cue sheet, press the [Go] key for the fader pair through which you want to play the cue. You can playback cues in both fader pairs at the same time. Faders playback cues independently of each other.

When you playback a standard cue (not a linked cue) the left fader in each pair, A and C, controls upfade times. The right fader in each pair, B and D, controls downfade times. The progress of the fade is indicated by numbers in Fader windows.

You can take manual control of fades by pushing the fader down to the 50% level (5 on the fader scale). Once the fader is moved to 50%, you have manual control of the fade. You can stop the fade or manually advance it to full.

When you playback linked cues the left fader controls intensity levels. The right fader controls the playback rate. When you begin the cue fade, MicroVision plays it back at the recorded rate. To take manual control of the playback rate, move the fader to 50 percent. Then move the fader up or down to adjust the rate. If right fader is set at a level other than 100 percent when you start the cue, MicroVision plays it back at an adjusted rate; **10** plays cues or steps back instantaneously, **5** plays cues back at record rate, and **0** stops playback.

Track

The [Track] feature provides a simple method of *tracking* channels through several cues. Tracked channels are channels in which intensity level setting is unchanged from the previous cue.

Complete description and instructions on using the [Track] feature is included in *Chapter 4, Tutorial*, on page 67.

appendix a

error messages

Disk formatter I/O error

A disk drive error has occurred in attempting to format the disk. Try the operation again. If the error recurs, try another disk. If the error continues to occur with other disks, notify your dealer or authorized service center.

Disk operation aborted by operator

The disk operation was aborted by the operator pressing the [CLEAR] button.

Disk seek error

A disk drive error has occurred in attempting to access the disk. Try the operation again. If the error recurs, try another disk. If the error continues to occur with other disks, notify your dealer or authorized service center.

Disk timeout error

Disk drive has timed out. Probably no disk in drive or disk not fully inserted. Insert the disk and try again.

Disks were swapped

The operator swapped disks in midstream. The disk operation is aborted.

No cues have been recorded To continue, press [CLEAR]

The operator requested a printout of cues or cue sheet, but no cues have been recorded.

No disk or drive door open

There is no disk in the drive or the disk is not fully inserted. Insert the disk and try again.

Printer is busy. Please try again later.

To continue, press [CLEAR]

Wait for the printer to complete its current printout, then try again. To abort the current printout before completion, use the "Abort print" selection in the Print Functions menu.

Printer is off-line

To continue, press [CLEAR]

Printer is not connected to the MicroVision, printer power is turned off, or printer is not on line. Check the printer and try again.

Unable to write disk – write protected

The disk is currently write protected. Slide the disk's write protect tab to the write enabled position and try again.

Unknown disk error

The disk drive has reported an error of unknown type. Try the operation again. If the error recurs, notify your dealer or authorized service center.

Unrecognized or unformatted disk

The disk in the drive is not properly formatted for use in the MicroVision. Format the disk and try again. Caution: formatting a disk erases its contents.

MicroVision shows cannot recorded onto Vision disks

The disk contents were recorded on a Vision console. The MicroVision can read such disks, but will not write on them. If you do not need to save the disk's contents, you may format the disk on the MicroVision and try again. Caution: formatting a disk erases its contents.

appendix b

specifications

Interfaces

- Input/Output options
 - MicroVision accepts a total of up to 96 analog input/output options, configured in any of the following combinations:

Analog Inputs	Analog Dimmer Outputs
0	96
32	64
64	32
96	0

- Digital output
 - Up to 512 DMX 512 digital protocol outputs
 - Colortran D-192 output options
 - Kliegl K-96 digital protocol (requires optional dimmer interface unit)
- AMX 192 output options
 - Up to 192 AMX dimmer outputs
- Parallel printer interface
- RS-232C serial port
- Remote Focus Unit interface
- Remote GO option

Cue capacity

- 200 cues per show
- 5 shows per disk
- 125 control channels
- Proportional softpatching of up to 512 DMX dimmers

Display functions

- Stage display
- Blind display
- Submaster display
- Softpatch display
- Set Up display
- Help display

Playback controls

- Autofader pairs (2) on 60 MM potentiometers
 - .1 second to 99:59 minutes programmable fade times
 - Manual override of upfade and/or downfade
 - Cross fades
 - Pile-on fades
 - Split time fades
 - Manual fades
- Six submaster potentiometers
 - 5 pages of 6 recorded submaster looks
 - Fully overlapping channel assignments
 - Proportional channel levels
 - Bump switch on all 6 submasters
- Optional readback from analog console
- Real Time Clock to program up to 10 events for playback on prescribed days of the week (optional)
- Grand master on 60 mm potentiometer
- Blackout function

Keyboard functions

- Cue functions
 - Cue function selection for cue numbers .1 to 999.9
 - Clear cues function
 - Fade times, discrete upfade and downfade times (00:00 - 99:59) for each cue
 - Linked cue sequences

Channel functions

- Channel function to allow channels to be selected by keypad
- [And] and [Thru] functions for selection of channels, cues and dimmers
- [Full] function
- Dimmer function to select dimmers in softpatch
- Release function to release captured channels

Fader wheel

- For proportional intensity control of channels

Size and weight

- 14 x 15.25 x 5 inches
- 9 pounds

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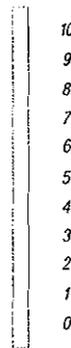
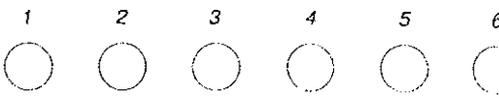
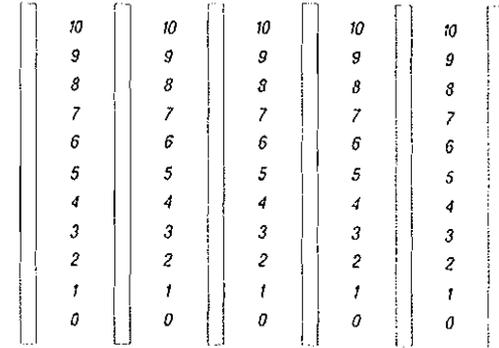
clear



submasters



grand master



go



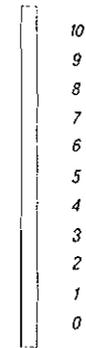
A



hold



B



go



C



hold



D

display stage



blind



patch



set up



help



MICRO

VISION

cue



7



8



9



chan



dim



sub



4



5



6



thru



rem dim



link



1



2



3



and



rel



page



time



-



0



+



at



track



record



clear



.



enter



full

