ENTERTAINMENT TECHNOLOGY

rosco

Intelligent Power System®

Operating Instructions & Installation Guide

ECLIPSE

Please read these instructions completely before attempting to operate this equipment.

Information in this document is subject to change without notice and does not represent a commitment on the part of ROSCO/Entertainment Technology.

"WARNING: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with this instruction manual may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference."

If you need help, consult your dealer. You may also find the following booklet helpful: <u>How to Identify and Resolve Radio-TV Interference Problems</u>. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, stock no. 004-000-00345-4.

About this Manual

Congratulations on purchasing your ECLIPSE, the first of a new generation of lighting control consoles from ROSCO/Entertainment Technology. ECLIPSE has been designed to give you years of reliable performance in your lighting control system. This manual presents the information you need to effectively set up and use your new ECLIPSE. Please review it before using your new console for the first time, and keep it handy to answer specific questions as they come up. This manual is organized into the following sections:

Section I is your "Up and Running" guide. It shows you everything you need to know to get your ECLIPSE set up and operational.

Section II contains a brief discussion of basic operations and the point of view of your ECLIPSE console. Read through here to learn the way ECLIPSE "thinks" about lighting control, cues, and the process of creating and playing back a show.

Section III contains a collection of short tutorials to help you through specific lighting control tasks. Look here for the answers to questions like "How do I link cues together?" or "What happens to an active SceneMaster when I change pages?".

Section IV is a collection of technical specifications for ECLIPSE. Look here for connector pin-outs, protocol specifications, etc.

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About this Manual

Notational Conventions

Within this manual, the following conventions are used to represent user interaction with the ECLIPSE control console:

Keys and Keystroke Sequences:

The names of keys and the descriptions of keystroke sequences you type on the ECLIPSE keyboard are printed in all caps, bold and italic. For example, *M6* is the playback key for Macro 6. *CONFIRM* and *RESTORE* are keys in the *Number Keypad*. Keys typed in sequence to accomplish a task are shown separated by commas. For example, *RECORD*, *1*, *2*, *CONFIRM* are the keys you would press to record Cue 12.

F-Key Labels:

Function Key labels have two parts, the name of the key and the name of the function. The name of the key is presented exactly as described above. The name of the function is printed immediately after the name of the key in italics within square brackets. For example, *F1 [Display Next]* in a SceneMaster display allows you to advance to the next SceneMaster.

System Messages on the Display:

Text you would read off of the display is printed in the Courier font. For example, `No Cue Number` is a message you would see if trying to load a fader with a blank cue number.

Formal Names:

Formal names of system entities which never actually appear on the screen or keyboard are printed in italics with each word capitalized. For example, the *Load Fader* editor accepts cue numbers for playback, and the *Go Next/Resume* key executes the next cue on a time fader.

What You Should Have

The following items should have been included with your ECLIPSE. If any of them are missing, contact the dealer who provided your system.

Standard Equipment

ECLIPSE Console:

Self contained desktop unit measuring 12 1/2" by 27" by 3 1/2".

Video Monitor:

IBM PC Monochrome or Multi-Synch Color compatible video display. See Technical Details (Chapter IV) for specification.

Cables:

Power cords for Console and Video Monitor, Video cable, DMX512 data cable.

Software Distribution Disk:

ECLIPSE is shipped with its operating software factory installed. The disk which was used to install the software is included with the console to allow re-installation at a later time.

This Manual:

"Intelligent Power System, Operating Instructions and Installation Guide, ECLIPSE". Publication number Y08-0217.

Optional Accessories

ASCII Keyboard:

IBM PC-AT compatible keyboard with 5-pin DIN connector.

PCL Level 3 compatible printer:

Any make or model printer which supports HP PCL printer control language (level 3) and has a Centronics parallel port may be used. ECLIPSE uses the default resident font and only simple character formatting, and so makes minimal demands on the printer's capabilities. (At present, our personal favorite is the HP Desk-Jet 540)

DOS Formatted, 1.44 Mb, High Density 3.5" disks:

Disks are used for library storage of the cues, patch, macros, and SceneMasters for a show.

Console Features
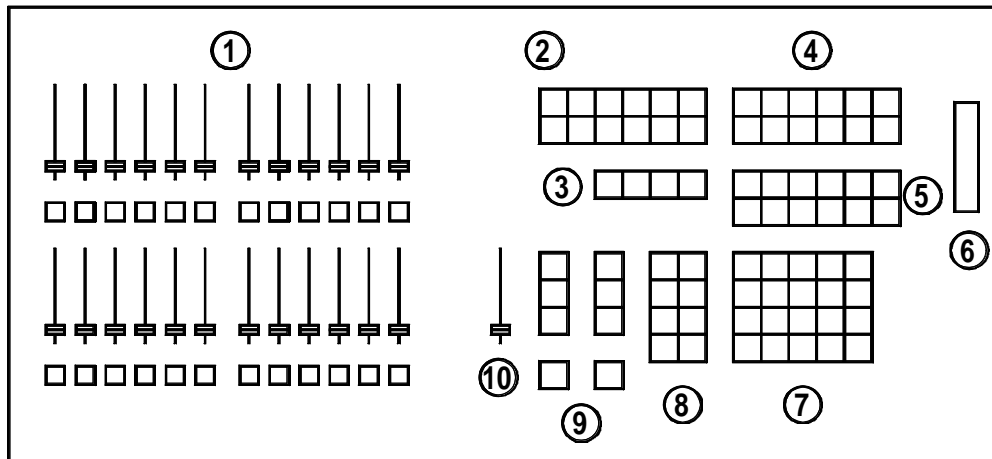
Main Keyboard

① SceneMaster Faders and Flash Buttons
② SceneMaster Load and Page Keys
③ Function Keys (F-Keys)
④ Macro Playback Keys
⑤ Display Control Keys

⑥ Encoder Wheel
⑦ Number Keypad
⑧ Cue Management Keys
⑨ X and Y Fader Control Keys
⑩ Grand Master Fader
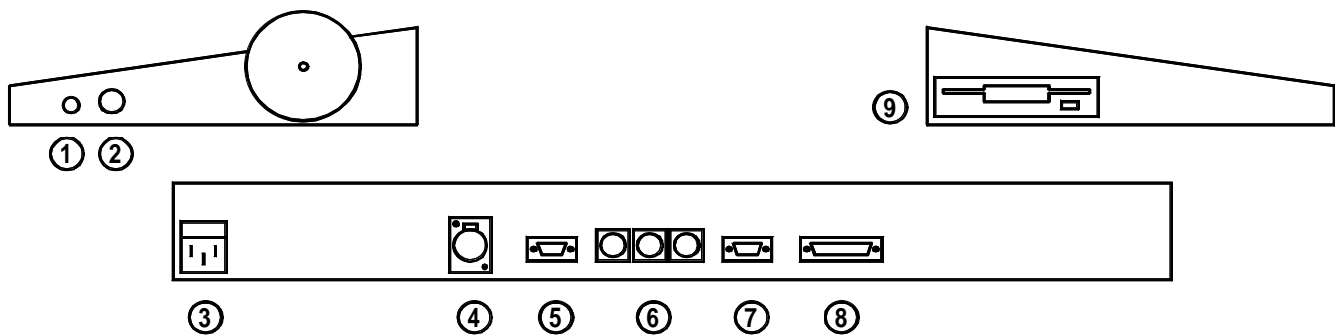
Rear Panel

① Mouse Connector
② Keyboard Connector
③ Power Inlet Connector and Switch
④ DMX512 Output Connector
⑤ Video Output Connector

⑥ MIDI In, Thru, & Out Connectors
⑦ RS-232 Connector
⑧ Parallel Printer Connector
⑨ 3 1/2" Disk Drive

Console Features

```
 ECLIPSE    GM   SCENEMASTER 12              Recorded                    384 CUES
  1    2    3    4    5    6    7    8    9   10   11   12   13   14   15   16   17   18   19   20
 FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL

 21   22   23   24   25   26   27   28   29   30   31   32   33   34   35   36   37   38   39   40
 FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL

 41   42   43   44   45   46   47   48   49   50   51   52   53   54   55   56   57   58   59   60
 FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL

 61   62   63   64   65   66   67   68   69   70   71   72   73   74   75   76   77   78   79   80
 FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL

 81   82   83   84   85   86   87   88   89   90   91   92   93   94   95   96   97   98   99  100
 FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL   FL
 SCENEMASTERS              PAGE A    X FADER        Y FADER          CHANNEL
  1 _____    9 _____  17 _____ | CUE 123.4    | CUE 567.8    |       CHANNEL 123
  2 _____   10 _____  18 _____ |      RUNNING |       HALTED | THRU  CHANNEL 240
  3 _____   11 _____  19 _____ | UP 1:23.4 99 | UP 1:23.4 50 | AND   CHANNEL 110
  4 _____   12 _____  20 _____ | DN 1:23.4 99 | DN 1:23.4 50 |      AT LEVEL   50
  5 _____   13 _____  21 _____ | DL    0      | DL    0      |
  6 _____   14 _____  22 _____ |              |              |
  7 _____   15 _____  23 _____ | WAIT    10.0 | WAIT         |
  8 _____   16 _____  24 _____ | NEXT 124     | NEXT         |
  F1 DISPLAY NEXT
```

Video Display

① **Screen Banner:** Contains Grand Master Indicator, Current Display Name, System Message Area, and Memory Remaining Indicator.

② **Active Display Area:** Shows Channel Levels, Dimmer Patch, Cue Sheet, or IPS Dimmer Status.

③ **SceneMaster Area:** Shows current page selection and Title Text for each SceneMaster on the current page.

④ **X Fader Status Area:** Shows current loading and running information for the X time fader.

⑤ **Y Fader Status Area:** Shows current loading and running information for the Y time fader.

⑥ **Edit Box:** Handles keypad entries for a variety of system functions including level setting, cue creation and deletion, fader loading, etc. Title of the box changes to reflect its current function.

⑦ **Function Key Area:** Shows the functions currently assigned to the F-Keys. These functions change as you move through the various displays and editors in the system.

Basic Hook-up
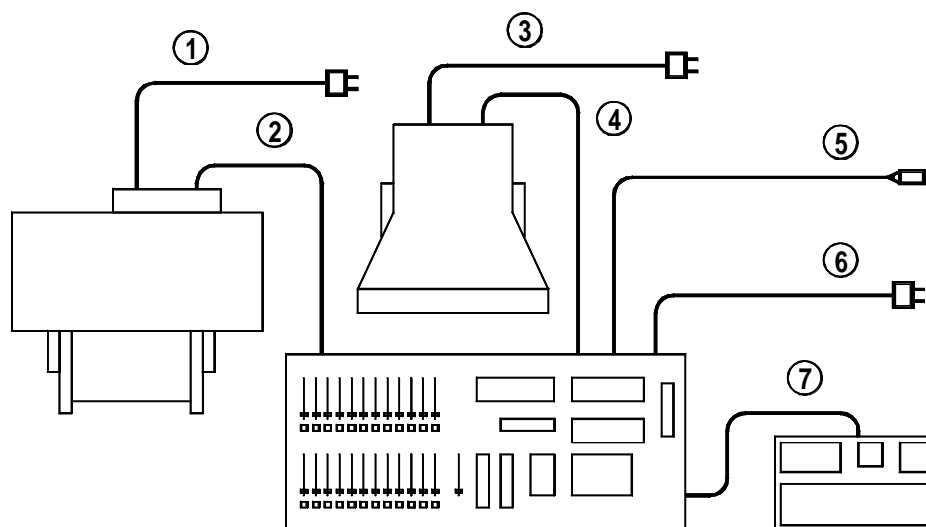
① **Printer Power Connection:** Standard 120 VAC power cord as supplied with printer.

② **Printer Data Connection:** Standard IBM PC Parallel Printer Cable.

③ **Video Power:** Standard 120 VAC power cord as supplied with video monitor.

④ **TTL Video Connection:** Video cable w/ 9-pin 'D' connector as supplied with monitor.

⑤ **DMX512 Connection to dimmers:** Standard DMX512 data cable with 5-pin XLR connectors as provided by your dealer.

⑥ **Console Power:** Standard detachable 120 VAC power cord provided with your console.

⑦ **IBM PC-AT Keyboard:** Full size 5-pin DIN connector plugs in at right side of console.

When everything is properly hooked up, switch on the console and monitor. Press the *SETUP* key to bring up the Set-up F-key functions. Press *F3 [1 to 1 Patch]*, *F1 [CONFIRM]* to establish the initial dimmer patch for your system. The system should now be ready to operate. Hook up a light to your first dimmer, make sure there is power to the dimmer bank, then press the keys   *1, AT, FULL*   on the *Number Keypad* (see page 2) to turn on this light. Note that Channel 1 is highlighted on the screen with the text "FL" directly below it. Now roll the *Encoder Wheel* towards you to fade the dimmer down. Watch the level change on the screen. Press the keys   *CLEAR*   and   *RESTORE*   to release Channel 1 and turn off the light. You are now ready to go on to the next section of this manual.

Important: The first time you power on a new system you may find that your ECLIPSE has been set for a different type of video display than the one you have. If there is no image on your video screen and you have checked the power and the video cable, type one of the following key sequences to set the correct video display type for your console.

If you have a monochrome video monitor, type *SETUP*, *F1 [CRT TYPE]*, *F1 [MONOCHROME]*.

If you have a color video monitor, type *SETUP*, *F1 [CRT TYPE]*, *F2 [COLOR]*.

Level setting is the most fundamental task in creating a show on a computer lighting console. This is how lights are manually turned on and adjusted to build the "stage pictures" that will eventually become cues in the system.

Channel levels in ECLIPSE are set with the *Number Keypad* and the *Encoder Wheel*. Depending on whether the console is in the LIVE, CUE BLIND, or SCENEMASTER display, level setting operates either on the current stage picture (Independent), the cue selected for blind display, or on the SceneMaster currently selected for display.

In each of these display modes, lighting levels are manipulated by building a list of channels (highlighted on the screen) and then performing a level setting operation. Channel lists are created by typing channel numbers on the *Number Keypad* in combination with the *+(And)* and *–(Thru)* keys. Typing *5*, *+(And)*, *1*, *5*, *–(Thru)*, *1*, *8* selects Channels 5, 15, 16, 17, and 18. Selected fixtures are highlighted on the screen by a gray background. A channel list may be cleared by pressing the *CLEAR* key in the *Number Keypad*.

Channels are set to levels by typing a value on the *Number Keypad* after the *AT* key or by rotating the *Wheel*. Typed-in levels are always two digits in length. For single digit levels, it is necessary to type in a leading zero. For example, to enter a level of 50%, type *AT*, *5*, *0*. To enter a level of 5%, type *AT*, *0*, *5*. To enter a level of 100% press the *FULL* key instead of two digits. The *Wheel* incrementally moves channel levels up or down from their present levels. Levels manipulated in this way "Shaft" up and down together. For example, if one selected channel goes from 50 to 55% during a wheel move, another selected channel will go from 25 to 30% in the same move.

In the LIVE display, modified channel levels go on Independent and are highlighted on the screen by a bright background. In the CUE BLIND and SCENEMASTER displays, level modifications occur directly in their respective buffers and are not highlighted. Channel levels set by the keypad while in the LIVE display will remain on Independent until released by a press of the *RESTORE* key.

Creating and Playing Back Cues

Once channel levels have been set as desired, they can be recorded into cues. A cue in ECLIPSE consists of a set of levels for all of the channels in the system and a set of timing parameters which indicate how the cue should be played back. Cues are recorded and modified with the 'Record', the 'Record & Track' and the 'Modify Time' functions, and may be removed from memory with the 'Delete' function. ECLIPSE has the ability to store up to 384 cues.

Cues are recorded in a "What you see is what you get" manner. The levels that read on the display are the ones which will be recorded into cues. When cues are recorded while in the LIVE display, everything which appears on Stage is included in the cue. You can build the "look" of a new cue by blending the outputs of several Playback Faders and adding individual levels on Independent. When everything is set, the Record operation will capture everything on stage for the new cue.

In the CUE BLIND display, cues may be built from scratch, or existing cues may be modified or copied to new cue numbers, without disturbing the levels on Stage. This is a great way to modify upcoming cues while in the middle of a rehearsal, or tone down a mis-focused light during a performance.

In the SCENEMASTER display, cues may be created by copying the contents of the displayed SceneMaster into a cue memory. You may want to do this if you will need to re-load a SceneMaster during a performance or as a way to capture the contents of one SceneMaster to load into another one.

When you are ready to record a cue, press the **RECORD** key to open the *Record Cue* editor. This editor requests the number of the cue you intend to record, and offers as a default the cue number which was most recently handled. Use the *Number Keypad*

to enter a cue number different from the default. If the cue number you enter already exists in memory, the prompting text "Cue:" is highlighted and the edit box title changes to "RE-RECORD".

After entering the cue number, use the up and down arrow keys to step thru the time fields and enter fade times for the cue. The time parameters for each cue consist of the following:

UP	Fade time for channels moving up
DOWN	Fade time for channels moving down
DELAY	Time between the start of the up and down moves
WAIT	Time from the end of the cue to the start of the next action
NEXT	Cue number for next action

When you are done, press the **CONFIRM** key to record the levels and fade times into memory.

You can remove individual cues from memory by pressing the **DELETE** key. It opens the *Delete Cue* editor which functions identically to *Record Cue*. Type in the number of the cue you wish to delete, then close the editor with the **CONFIRM** key. The indicated cue will be removed from system memory.

Finally, time values for existing cues may be modified by pressing the **TIME** key to open the *Modify Fade Times* editor. This editor functions identically to the *Record Cue* editor, except that when it is closed with the **CONFIRM** key, only the fade times are re-recorded. Channel levels are not disturbed.

Playing Back Cues

The ECLIPSE playback faders consist of the X and Y time faders, and the twenty-four SceneMasters. These faders contribute lighting levels to the overall "look" on Stage by bringing up cues. The faders interact with each other in a "Highest Level takes Precedence" manner. This means that the actual output level for

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each channel is the highest of those contributed for the channel by each of the twenty-six playback faders.

X and Y Time Faders:

The X and Y time faders handle the bulk of the work in normal playback situations. They function as cross faders, which means that they automatically create a smooth transition from one cue to the next. Each fader has four time parameters: Up, Down, Delay, and Wait which control both the execution of the cue's transition and the timing between linked cues. Every recorded cue has values for these parameters although they are only valid if the cue is played back on one of the time faders.

Each time fader has **LOAD**, *Go Next/Resume* (Labeled **X** and **Y**), **HALT/BACK**, and **CLEAR** keys. The **LOAD** key opens the *Load Fader* editor which allows any cue to be selected for playback. If the editor is closed with the **CONFIRM** key, the cue is executed immediately. If the editor is closed with **F1** *[LOAD PENDING]*, the cue is loaded to the Next field for the fader and will be executed on the next push of the *Go Next/Resume* button.

When a cue starts executing, the Up and Down time parameters control the actual transitions of lighting levels. *Up Time* controls the rate at which channels

increase in intensity, while *Down Time* controls the rate at which channels decrease in intensity. If both Up and Down have the same value, a cross fade occurs. The *Delay Time* modifies the starting point of the Up and Down moves relative to one another. A *Delay Time* of 5 seconds, for instance, will cause the Down move to start 5 seconds after the Up move started. This is how timed "Split" fades are created. The *Wait Time* determines how long after a cue finishes the fader will wait before automatically going on to the next cue. If *Wait Time* is zero, the cue just executes then stops.

SceneMasters:

ECLIPSE SceneMasters are Pile On faders equivalent to "Overlapping Submasters" on other consoles. Each may be loaded with a cue which may then be manually added to the total Stage picture in a "Highest Level Takes Precedence" manner. Each SceneMaster has an associated flash button which has the same effect as bumping the fader to 100%. Time parameters have no relevance to SceneMasters and are ignored.

SceneMasters are loaded in much the same manner as the time faders, with an editor opened by the SceneMaster **LOAD** key. This editor, however, requires two entries: first the SceneMaster you wish to load, then the actual cue number. In addition, you can display each SceneMaster and directly edit its channel levels.

SceneMasters have the extra feature of possessing four pages of memory. This means there are a total of 96 SceneMaster looks stored in the console (4 pages of 24). The SceneMaster Page keys, **PAGE A**, **PAGE B**, **PAGE C**, and **PAGE D** switch the SceneMasters between pages.

The topic "Using SceneMasters" in the next chapter contains a full discussion of SceneMaster functions.

Managing Shows

As you work through the process of creating and refining a show, you will accumulate a substantial amount of information in the ECLIPSE's memory. This information tells the console how to play back your show. At each rehearsal or technical session this information will be edited and fine tuned for optimal performance.

Even though ECLIPSE stores this information in "non-volatile" memory (information is preserved even if the console is switched off or unplugged), you should protect it from accidental deletions or corruption due to equipment failures by practicing a regimen of backing up the data to disk at the end of each work session.

A typical back-up procedure involves the use of two disks per show, in rotation. On the first day the show data is written onto disk 1 of the set. On the second day, it is written onto disk 2. On the third day, disk 1 is used again. In this way the two most recent versions of the show are always available should something happen to the data in the console. Also, if one of the disks should be damaged, the other still contains very recent data.

In a professional situation where the cost of lost time is very high, you may wish to modify the above procedure to use more than one disk per day, and to back-up more than once per work session.

The information which comprises a "Show" in ECLIPSE includes up to 384 lighting cues which usually play back on the X and Y

time faders, 96 SceneMaster memories, the system patch (assignment of dimmers to control channels), and up to 12 keyboard macros.

All of this information may be written to a DOS compatible file called SHOWDATA.ACE on a 3 1/2 inch, high density disk for back-up and long term storage. Since the file and the disk are fully DOS compatible ECLIPSE SHOWDATA files may be transferred to a PC hard disk or other data storage device for long-term archive purposes. This gives users who work in a repertory situation a reliable way to keep the cues from many shows on file.

Another tool which helps you to manage the information stored in the ECLIPSE console is the printer. Paper copies of cues, patch, and SceneMaster data not only provide the ultimate in "off-line" back-up, but frequently provide the most convenient way to quickly scan for specific pieces of data. With prices for high quality ink-jet printers falling toward the $200.00 mark, there is little reason not to have one attached to your console.
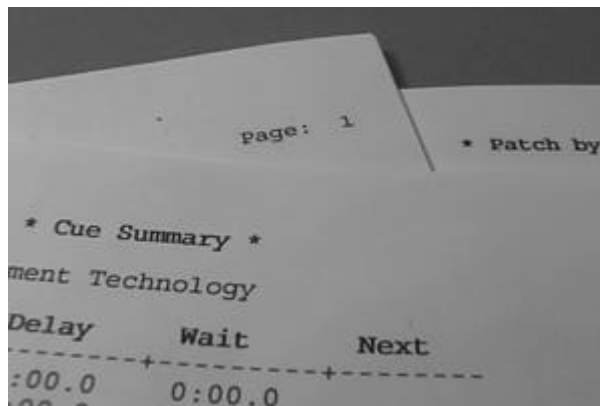
As you can see, ECLIPSE facilitates your lighting work at all stages of the process. We believe you will find it quick and fun to use, and to be a capable and reliable tool in your lighting control system.

The ECLIPSE user interface is built around the concept of Displays and Editors. Displays define the class of information shown in the *Active Display Area* of the screen. Editors define the function of the *Number Keypad*, the *Wheel*, and associated keys. Each display has an associated editor for interacting with the displayed data. Transitory functions such as recording a cue or loading a fader pop-up temporary editors to accept input. When these functions terminate, they return to the base level editor of the current display.

Review the features described on Pages 2 and 3 to familiarize yourself with the ECLIPSE video display and keyboard.

ECLIPSE powers up in the LIVE display. The current output levels of all channels are shown in the *Active Display Area* and the keypad editor allows the user to set channel levels on independent. The other display modes and their basic editors are:

CUE BLIND: *Active Display Area* shows channel levels of a selected cue in memory. The keypad editor allows the levels in that cue to be directly modified.

SCENEMASTER: *Active Display Area* shows channel levels of the specified SceneMaster. The keypad editor allows the levels in that SceneMaster to be directly modified.

PATCH: *Active Display Area* shows the assignment of DMX512 addresses to control channels for all 512 possible DMX addresses. The keypad editor allows the patch assignments to be modified.

CUE SHEET: *Active Display Area* shows a summary listing of cues in memory. The keypad editor allows the starting cue of the list to be specified.

IPS DIMMER STATUS: *Active Display Area* shows a status overview for all IPS dimmers connected to the system. The *Edit Box* shows complete detailed status for one selected dimmer. The keypad editor allows the detailed status dimmer to be selected.

Transitory functions use the *Edit Box* to accept user input. The title of the box changes to reflect the type of input which is expected. When a transitory editor is terminated with **CONFIRM**, **CANCEL**, or with an F-Key, the *Edit Box* returns to the base editor of the current display.

Transitory functions which do not require extensive user input (disk functions for example) re-define the F-keys but do not open a temporary editor. To return to the base level F-keys for a display after selecting one of these functions, simply re-select the display with the appropriate Display Control key.

Setting Up the System

Set-Up functions are initiated by F-Keys.

To bring up the Set-Up F-Key functions press the *SETUP* key in the Display Control keypad.

Video Set-Up Functions:

ECLIPSE can operate with either a monochrome or color video monitor. To select a monochrome monitor, press

F1 [CRT TYPE], *F1* [MONOCHROME].

To select a color monitor, press

F1 [CRT TYPE], *F2* [COLOR].

The system configures itself for the selected CRT type, then puts up the message

    Video Mode Set.

Important: The first time you power on a new system you may find that your ECLIPSE has been set for a different type of video display than the one you have. If there is no image on your video screen and you have checked the power and the video cable, type one of the following key sequences to set the correct video display type for your console.

If you have a monochrome video monitor, type *SETUP*, *F1* [CRT TYPE], *F1* [MONOCHROME].

If you have a color video monitor, type *SETUP*, *F1* [CRT TYPE], *F2* [COLOR].

See the Specifications Summary in Section IV for details on video monitor selection.

Set-Up Functions for Patch:

Before ECLIPSE can control dimmers, an internal connection must be made between the console's control channels and the DMX addresses of the connected dimmers. In cases where there are fewer than 240 dimmers in a system, a simple 1 to 1 patch (Channel 1 controls Dimmer 1, etc.) is all that is needed. To establish a 1 to 1 patch for the first 240 dimmers in the system, press

F2 [1 TO 1 PATCH], *F1* [CONFIRM].

The system creates the patch, then puts up the message

    Default Patch Set.

See the topic "Editing the DMX512 Patch and Checking Dimmers" for more information on patching.

Clear System Set-Up Functions:

When starting to create the cues for a new show, it is usually necessary to delete all previous cues from the console memory. To erase all Cues and Keyboard Macros from system memory, press

F3 [CLEAR SYSTEM], *F1* [CONFIRM].

The system clears its memory, then puts up the message

    System Clear.

The Memory Remaining Indicator in the Screen Banner should now read

    384 CUES

Editing the DMX512 Patch and Checking Dimmers

To view the current system patch *(the assignments of dimmers to control channels)*, press the **PATCH** key in the Display Control keypad.

Default (1 to 1) Patch

Default Patch is a function of the Set-Up F–Key menu. Bring up this menu by pressing the **SETUP** key in the Display Control keypad.

To establish a 1 to 1 patch for the first 240 dimmers in the system, press

F2 *[1 TO 1 PATCH]*, **F1** *[CONFIRM]*.

The system creates the patch, then puts up the message

    Default Patch Set.

To return to the normal PATCH display F-Keys press

F4 *[EXIT]*.

Editing the Patch

When in the PATCH display, the *Number Keypad* and *Edit Box* are used to edit the current system patch. Patch commands are simple English-like directives entered with the *Number Keypad* and the F-keys.

To assign Dimmer 512 to Control Channel 100, type the following key sequence:

5, **1**, **2**, **F1** *[IN CHANNEL]*,
1, **0**, **0**, **CONFIRM**

Groups of dimmers may be selected with the **+(And)** and **–(Thru)** keys. For example,

5, **+(And)**, **2**, **4**, **1**, **–(Thru)**, **2**, **4**, **3**

selects Dimmers 5, 241, 242, and 243.

The **F2** *[UNPATCH]* key removes the channel assignment of the currently selected dimmers. An unpatched dimmer is always held at a level of zero, and cannot be controlled from a cue or from the level setting functions in a channel display.

The **NEXT** key selects the next highest dimmer for patching. For example, if Dimmer 3 is selected, pressing **NEXT** de-selects Dimmer 3 and selects Dimmer 4.

Checking Dimmers

F4 *[SEL AT FULL]* toggles the PATCH display into the DIMMER @FULL mode. In this mode, selected dimmers are forced to Full-On regardless of patch assignment or cues presently on stage.

To force Dimmer 125 to Full, type

1, **2**, **5**, **CONFIRM.**

Use the **NEXT** key to perform a sequential dimmer check.

Press **F4** *[SEL AT FULL]* again to return to normal patch functions.

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Setting Levels with the Channel Keypad

When in one of the channel displays (LIVE, CUE BLIND, or SCENEMASTER), the *Number Keypad* is used to select control channels and set them to levels. It is common in this context to refer to the *Number Keypad* as the *Channel Keypad*.

In each of the various channel displays, the *Channel Keypad* is used to manually edit levels. Depending on the current display, there are slight differences in the results of level setting operations.

Setting Levels in the LIVE Display

Level setting commands are English-like directives entered with the *Number Keypad* and the *Wheel*. The key sequence

   5, *+(And)*, *1*, *5*, *–(Thru)*, *1*, *8*, *AT*, *5*, *0*

selects channels 5, 15, 16, 17, and 18 and sets them to a level of 50%.

In the LIVE display, these specified levels go into a special buffer called Independent which overrides levels coming from any of the playback faders. Channel levels are displayed with a bright background to indicate they are held on Independent.
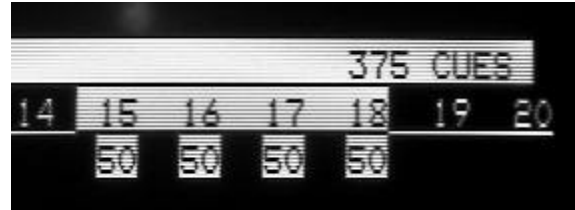
Overlaying Independent levels on the Live output allows cues to be created or modified by putting existing cues on stage, modifying the look with levels on Independent, then recording the result.

Rotate the *Wheel* to incrementally adjust selected channels up or down. This allows precise balancing of levels by eye.

Press the **NEXT** key to select the next highest channel.

Release channels from Independent by pressing the **RESTORE** key. This causes the Live output of the console to return to the levels contributed by the playback faders.

CUE BLIND and SCENEMASTER Displays

The CUE BLIND and SCENEMASTER displays do not use the Independent buffer. Instead, level setting actions operate directly on the displayed item. In the CUE BLIND display, changes are made directly to the cue stored in memory. No Record operation is necessary to save the changes. In the SCENEMASTER display, changes are made to the SceneMaster buffer. If the SceneMaster happens to be live, the changes will show on stage.

Since the Independent buffer is not used in these displays, the **RESTORE** key has no effect on the modified levels.

Recording a cue is the process of storing a set of channel levels and fade times into the non-volatile memory of the console. Cues are identified by a number which can range from 000.1 to 999.9. It is the usual practice to give cues whole numbers at the time a show is initially programmed, saving decimal numbered cues for additions later in the rehearsal process. ECLIPSE assumes that cues will usually be played back in numeric sequence.

Recording a Cue

Select the display from which you wish to record. Cues can be recorded from the LIVE, CUE BLIND, and SCENEMASTER displays.

Set channel levels as desired.

Press the *RECORD* key in the Cue Keypad to open the *Record Cue* editor. When the editor opens, it contains the last cue number which was loaded or recorded.

Type in the number of the cue you wish to record, or press the *+(Next)* key to enter the next highest cue number or press the *–(Last)* key to enter the next lowest cue number. If the number you enter is already used by a cue, the word "CUE" in the edit box is highlighted and the box title changes to "RE-RECORD".

Use the Up and Down Arrow keys in the Display Keypad to step through the time fields. Type in numbers for each value as needed. See the topics "Playing Back Cues on the X and Y Time Faders" and "Linking Cues to Create Effects" later in this chapter for discussions of the uses of fade time parameters.

When all of the parameters are set as desired, complete the record operation by pressing the *CONFIRM* key. The channel levels in the *Active Display Area* and the time parameters just entered are saved in system memory.

To quit the Record Editor without recording a cue, press the *CANCEL* key.

Modifying Fade Times

To modify the fade times of an existing cue, press the *TIME* key in the Cue Keypad to open the *Modify Fade Time* editor. This editor operates identically to the *Record Cue* editor.

Step through each field and enter values as desired. When done press the *CONFIRM* key to save the modified time parameters to the indicated cue.

As with *Record Cue*, press the *CANCEL* key to quit the editor with no changes made.

Deleting a Cue

Cues may be removed from memory with the Delete function. Press the *DELETE* key in the Cue Keypad to open the *Delete Cue* editor.

Enter the cue number of the cue to be deleted, then press the *CONFIRM* key to execute the action.

As with *Record Cue*, press the *CANCEL* key to quit the editor with no changes made.

Playing Back Cues on the X and Y Time Faders

Time faders handle the bulk of the playback activity in the ECLIPSE console. They automatically calculate smooth transitions for cues which are executed on them.
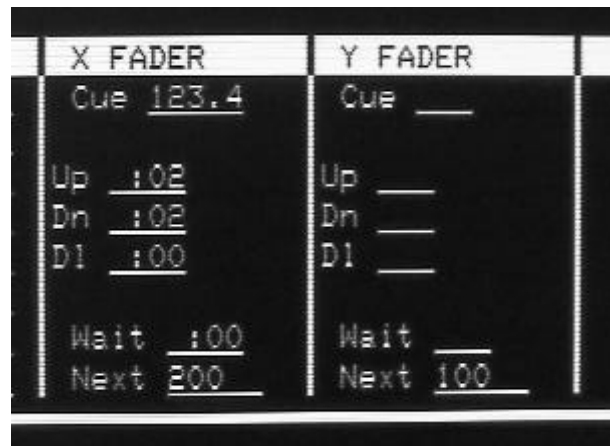
ECLIPSE has two time faders, labeled "X" and "Y". Each fader has a *CLEAR*, a *HALT/BACK*, a *LOAD*, and a *Go Next/Resume* (*X* or *Y*) key.

Loading Cues to Time Faders

To load a cue to a time fader, press the *LOAD* key for that fader. This opens the Load Fader editor. The edit box will be titled "LOAD X" or "LOAD Y".
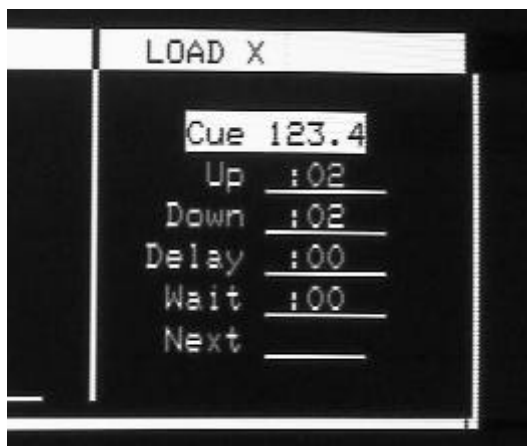
Type in the number of the cue you wish to load with the *Number Keypad*. If the cue exists, the word "Cue" is highlighted in the edit box. Press the *+(Next)* or *−(Last)* keys to step to the next higher or lower existing cues.

Press the *CONFIRM* key to load the specified cue to the time fader and start it executing. Press *F1* *[LOAD PENDING]* to

copy the cue number to the Next field of the indicated fader. This allows the specified cue to be started manually at a later time.

Starting Cues Manually

Cues start executing either when the Load Fader editor is closed with the *CONFIRM* key or when one of the *Go Next/Resume* keys is pressed. When a cue starts, its cue number and timing information appear in the Fader Status Area.

A cue is considered to be "Running" until its fade times have elapsed. After that it is either static, or "Waiting" to link to the cue shown in the Next field. Progress of a running fade is shown to the immediate right of the Up and Down fade times. The progress indicator shows the percentage complete of the fade. After a cue is complete, its cue number and timing parameters remain in the Fader Status Area until another cue is started on that time fader.

The Up, Down, and Delay parameters control the actual operation of the fade. *Up Time* specifies the fade duration for all channels which are moving to a higher (brighter) level. *Down Time* specifies the fade duration for all channels which are moving to a lower (dimmer) level. If both Up and Down have the same value, a cross fade is executed.

Delay Time allows the starting point of the Down move to be later than the starting point of the Up move. This creates a "Split" fade, and is often preferable to a simple cross fade. For example, if Up and Down times are both 4 seconds and the *Delay Time* is 2 seconds, the Down move will start half way through the Up move, and the total fade will take 6 seconds.

Interrupting Running Cues

ECLIPSE allows running cues to be interrupted in several ways. Cues can be halted, run backwards, or resumed.

Halt

To stop a cue that is running on a time fader, press the **HALT/BACK** key for that fader. This freezes the lighting transitions, and holds the levels until some other operation occurs on the fader. The system displays the message "Halted" in the Fader Status Area.

Back

When a cue is Halted on a fader or is static after completion, the *Back* function may be used to start a short fade back to the previous cue. Press the **HALT/BACK** key in the fader to start the fade back to the previous cue. The fade occurs in 1.5 seconds and the system puts up the message "Back" in the Fader Status Area while the fade runs. If there is no previous cue to execute, the system puts up the message "CUE DOES NOT EXIST".

Resume

To resume a fade which has previously been halted, press the *Go Next/Resume* key for the halted fader. This causes the lighting transitions to start again at exactly the point they were frozen by the *Halt* function.

Clearing a Fader

To clear all of the lighting levels from a time fader, press the **CLEAR** key for that fader. This forces all channel levels in the fader to zero, clears all of the fade times, and stops all fade progress. The Next field, however, retains its value and the cue it contains may be started with a press of the *Go Next/Resume* key for the fader.

Auto-Follows and Links

The Wait and Next fields in the time fader may be used to link cues together for a variety of automatic execution effects.

The *Wait Time* specifies how long the time fader should wait before automatically starting the cue shown in the Next field. The Wait Timer doesn't start until both the Up and Down transitions have completed. For example if Cue 1 has a 5 second cross fade and a *Wait Time* of 2 seconds, then Cue 2 will automatically start executing 7 seconds after Cue 1 started. A *Wait Time* of zero causes a cue to execute and then stop (no auto-follow).

The Next parameter specifies the cue which will be executed if the *Go Next/Resume* key is pressed or if the current cue has a non-zero *Wait Time.* If this field is left blank when a cue is recorded, the fader will automatically pick the next highest existing cue number when the cue is played back. If a specific cue number is entered into this field, a link is created between the current cue and the specified one. A link can go either forward or backward in a show. Backward links may be used to create loops of cues which are the basis of marquee chase effects.

SceneMasters provide a direct manual means for controlling your lighting. They are ideal for "seat of your pants" lighting in concerts and impromptu performances. They can also serve as a "light mixer" for building "stage looks" from cue fragments.

Each SceneMaster has a slider and a flash button on the front panel.

Getting Levels into SceneMasters

Channel levels can be set in individual SceneMasters in a variety of ways. A SceneMaster may be modified directly with the *Channel Keypad*, may have a cue loaded to it, or may have the LIVE output of the system copied to it.

Modify direct w/ keypad

To directly modify the channel levels in a SceneMaster, perform the following:

Press the **SCENEMASTER** key in the Display Keypad. This opens the *Select SceneMaster for Display* editor.

Type in the number of the SceneMaster you wish to modify. Press **CONFIRM** to change to the SCENEMASTER display.

Use the *Channel Keypad* to select channels and set levels as you would in the LIVE or CUE BLIND displays. Changes occur

directly in the SceneMaster, and will show on stage if the SceneMaster is live.

Load With Cue

To copy a cue from system memory to a SceneMaster, perform the following:

Press the **LOAD** key in the SceneMaster keypad. This opens the *Select SceneMaster for Load* editor.

Type in the number of the SceneMaster you wish to load (destination).

Press **F1** *[WITH A CUE]* to open the *Load Fader* editor.

Type in the number of the cue you wish to load (source).

Press **CONFIRM** to load the cue to the selected SceneMaster.

Load with LIVE Output

To copy the live system output to a SceneMaster, perform the following:

Press the **LOAD** key in the SceneMaster keypad. This opens the *Select SceneMaster for Load* editor.

Type in the number of the SceneMaster you wish to load (destination).

Press *F2 [WITH LIVE]* to copy the live system output to the SceneMaster.

Clear

To clear the channel levels in a SceneMaster, perform the following:

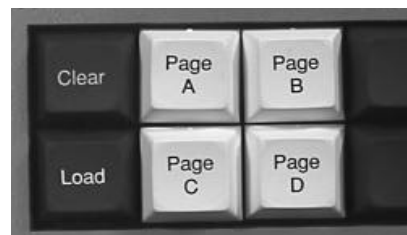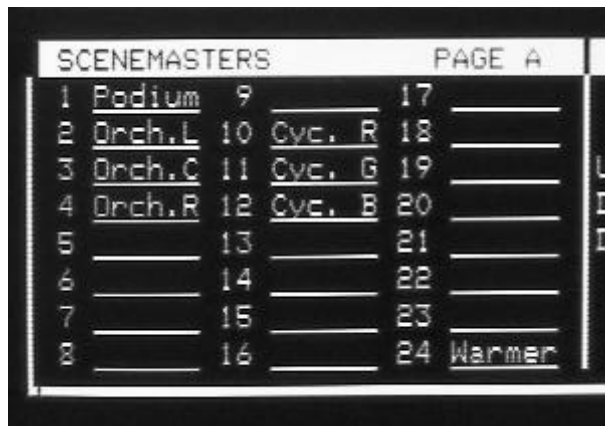Press the **CLEAR** key in the SceneMaster keypad. This opens the *Select SceneMaster for Clear* editor.

Type in the number of the SceneMaster you wish to clear.

Press *CONFIRM* to clear the channel levels of the SceneMaster.

Adding Text Labels to SceneMasters

Each SceneMaster has a 6 character text label which is shown in the SceneMaster area on the screen. These labels help you identify the task you have assigned to each SceneMaster.

To add a text label to a SceneMaster perform the following:

Press the *LOAD* key in the SceneMaster keypad. This opens the *Select SceneMaster for Load* editor.

Type in the number of the SceneMaster you wish to label.

Press F4 [LABEL SCN.] to open the *Text Label* editor.

If you have an IBM PC/AT keyboard attached, simply type in your text label on that keyboard. If not, you can use the *Number Keypad* and the F-Keys to enter your label.

Use the *+(Next)* and *–(Last)* keys to roll through character values in the label, video game style. Press *F1 [UPPER/LOWER]* to change the character to upper case. Press the *Down Arrow* key to move to the next character position. Enter numbers with the *Number Keypad*. Press *F2 [TEXT/SYMBOLS]* to convert the number keys to punctuation marks and special symbols.

When the label is correct, press *CONFIRM* to close the editor, or *F3 [NEXT SC. MSTR]* to edit the label of the next SceneMaster.

SceneMaster Memory Pages

The SceneMaster section of ECLIPSE has four pages of memory. This means there are actually 96 SceneMaster memories even though there are only 24 faders. The four *Page* keys in the SceneMaster keypad are used to select the current SceneMaster memory page. The page choice is shown in the banner of the SceneMaster area on the screen.

To prevent SceneMaster page changes from abruptly changing the lighting levels on stage, ECLIPSE defers page changes for any SceneMasters which are above zero. This allows "dark" SceneMasters to be set-up while "live" ones remain on stage. Deferred page changes occur when the SceneMaster slider returns to zero.

SceneMasters which have deferred page changes pending are shown highlighted in the SceneMaster Area on the screen.

Modifying Cues in the "Live" and "Cue Blind" Displays

A significant amount of time is spent in rehearsals fine tuning lighting levels to achieve the exact effect desired. ECLIPSE allows cues to be modified and re-recorded both live on stage and in the CUE BLIND display.

Modifying Cues LIVE

To modify a cue in the LIVE display you must first load it into one of the playback faders and bring it up on stage. In many cases this occurs automatically in the normal course of rehearsal: The *Go Next/Resume* key is pressed to bring up the next cue, the cue is modified and re-recorded, then the *Go Next/Resume* key is pressed again to move on.

To modify a cue Live, proceed as follows:

Make sure you are in the LIVE display. Bring the cue up on stage by loading it to one of the playback faders.

Adjust channel levels with the *Channel Keypad* and *Wheel*. Channel modifications are held on Independent and highlighted on the screen.

Mix levels from SceneMasters or time faders, if desired, to build the required "stage picture".

When the channel levels are set as desired, press the **RECORD** key to open the *Record Cue* editor. If it is not already there, type in the desired cue number in the Cue field. The *Edit Box* title reads "RE-RECORD". Press the **CONFIRM** key to complete the record operation.

If the cue which you recorded is Live in either the X or Y time faders, the record function automatic posts the updated copy of the cue to the fader. This eliminates the additional step of manually re-loading the fader.

Press the **RESTORE** key to release modified levels from independent.

Modifying Cues "In the Blind"

Use the CUE BLIND display to modify a cue without disturbing the lighting levels on stage.

Press the **CUE BLIND** key in the Display Keypad to open the *Load Blind* editor.
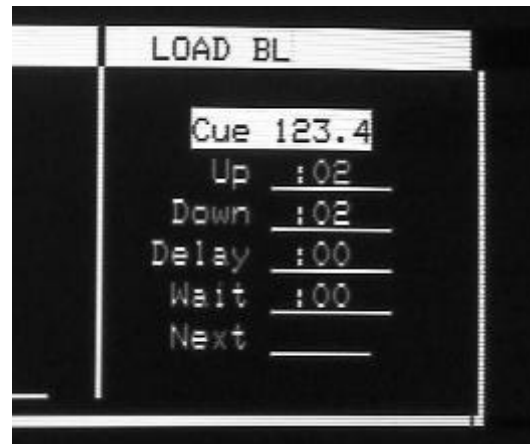
Type in the number of the cue you wish to view or modify. If the cue exists, the word "Cue" on the screen will be highlighted. Press **CONFIRM** to open the CUE BLIND display with the specified cue.

Use the *Channel Keypad* to modify channel levels as required.

> **Note:** In the CUE BLIND display, the *Channel Keypad* operates directly on the cue in system memory. Be sure of your changes. There is no Restore or "Un-Do" in this display.

When you have finished your modification, press *F1 [Display Next]* to view the next sequential cue, press **CUE BLIND** to view a non-sequential cue, or press one of the other display keys to leave the CUE BLIND display.

If you wish to build a cue from scratch in the blind, open the CUE BLIND display with the Cue Number field cleared. Set levels as desired then record the levels to the required cue number.

ECLIPSE contains a special tracking record function which may be used to modify a series of pre-existing cues. This function analyzes the changes being made to individual channels in one cue and automatically tracks the changes through subsequent cues until new levels are found. This speeds up the process of fine tuning the cues of a show during rehearsal.

Consider the following example of a single channel in several cues:

Cue:	1	2	3	4	5	6
Level:	50	70	70	70	FL	70

The channel starts at 50%, goes to 70% in Cue 2, stays there until Cue 5 when it goes to Full, then returns to 70% in Cue 6.

If the level of this channel is changed to 35% in Cue 2 and recorded with *Record & Track* , the resulting levels through the cue sequence are:

Cue:	1	2	3	4	5	6
Level:	50	35	35	35	FL	70

Since the original level of 70% existed in subsequent adjacent cues, the new level of 35% is posted into each subsequent cue until a change to another level is found. In this case the next change occurred in Cue 5 where the channel went to Full, so tracking stopped here. Notice that the level in Cue 6 has not been altered even though it is the same as the original level in Cue 2.

Using this function, levels which exist in multiple cues may be modified simply by modifying the first cue which contains the level. This imitates the behavior of a tracking style lighting console.

The *Record & Track Cue* function can be initiated in any of the LIVE, CUE BLIND, and SCENEMASTER displays. It may be used on both new and pre-existing cues.

To record a cue and track the levels into subsequent cues, perform the following:

Make the modifications to the cue as desired using the *Channel Keypad*

Initiate the *Record & Track Cue* function by pressing the **RECORD TRACK** key in the Cue Keypad.

Type in the cue number you wish to record. The cue number editor functions identically to the one in the *Record Cue* function. The *Edit Box* title changes to "RE-RECORD" if you type in the number of a cue which already exists in memory.

Press **CONFIRM** to complete the action.

The system records the current levels into the specified cue, analyzes the levels for any which qualify for tracking, then tracks them into subsequent cues.

Note: The number of cues modified by the *Record & Track Cue* function is completely determined by the levels in the cues. At one extreme, if none of the changed levels meet the tracking criterion, only the specified cue will be recorded. Conversely, if a channel was parked at a level in every cue in a show, changing it in Cue 1 with *Record & Track* would cause it to be changed in all cues in the system.

Linking Cues to Create Effects

Cues in ECLIPSE contain flexible linking options which allow the creation of a wide variety of special effects.

Auto-Follow Cues

In many playback situations cues are executed one at a time with the lighting operator manually starting each one. Occasionally, cues must follow one on the other too rapidly to be accurately started by hand. In this case, cues can be linked together and executed as an "auto-follow". To link two cues together to play as an auto-follow, perform the following:

Create the two cues individually with the correct levels and fade times.

Press the *TIME* key to open the *Modify Fade Times* editor and enter the number of the first cue of the pair.

Press the Down Arrow key to move to the "Wait" time parameter. Enter a non-zero value in this field. A value of "`00.1`" causes the second cue to execute the instant the first is done. Larger values cause the fader to pause between the two cues. (*A value of zero causes the cue to execute and stop, i.e. no auto-follow.*)

Leave the Next field blank, then press the *CONFIRM* key to save the time values.

Simulated Multi-part Cues

Auto-follow cues can be used to simulate multi-part cues. This is done by breaking up long moves into segments, and putting each segment into an auto-follow cue.

For example, if Channel 1 moves from 00 to Full in 10 seconds and Channel 2 holds at zero for 5 seconds, then moves to Full in five seconds, write Channel 1 to 50 in the first cue and Full in the second, and Channel 2 to 00 in the first cue and Full in the second. Set the Up and Down times to 5 seconds in both cues, and set the *Wait Time* to 00.1 seconds in the first cue.

Looping Effects

The *Next Cue* parameter allows non-sequential linking of cues. This forms the basis of a variety of looping effects.

Marquee Chases

The standard theatre marquee chase is achieved in ECLIPSE by creating a cue for each step of the chase and linking the cues together into a loop.

For example, to build a three circuit chase in Cues 501, 502, and 503, set Channel 1 to Full in 501, Channel 2 to Full in 502, and Channel 3 to Full in 503, then set the fade times for each as shown below:

Cue	501	502	503
Up	:00	:00	:00
Down	:00	:00	:00
Delay	:00	:00	:00
Wait	:00.1	:00.1	:00.1
Next			501

Marquee Chase Variations

You can cause the steps of the marquee chase to fade up and down by putting non-zero values in the Up and Down time parameters.

You can cause the fader to pause on each step of the chase by putting a larger value in the *Wait Time* parameters.

You can offset the "On" and "Off" transitions of the chase from each other by putting a non-zero value in the *Delay Time* parameters.

Manually Stepped Loops

It is not necessary to use an auto-follow to take a non-sequential link. If the *Wait Time* is zero and a cue number is entered in the Next field, then the time fader will execute the non-sequential cue on a press of the *Go Next/Resume* key. With this technique, a loop of cues can be built in which each step is manually started.

Using the Cue Sheet Display

The CUE SHEET display provides a convenient way for the lighting operator to review the cues in the system and their playback timings.

Press the **CUE SHEET** button in the Display Keypad to view the CUE SHEET display.

Scrolling Through the Display

Press the Up and Down Arrow keys to scroll through the CUE SHEET display.

Type in the number of the cue you wish to view on the *Number Keypad*. If you type in the number of an existing cue, the word "CUE" is highlighted.

Press the **CONFIRM** key.

If the entered cue exists, the CUE SHEET display scrolls to the cue and places it on the top line of the display.

If the cue does not exist, the display scrolls to the next highest cue number from the one entered.

Playback Fader Indicators

The left hand column of the CUE SHEET display shows the playback status of each cue. If a cue is live in either the X or Y time fader, a letter "X" or "Y" will appear next to it in the left hand column of the display.

Selecting the Starting Cue Number

The base level editor for the CUE SHEET display facilitates the selection of the starting cue number of the display.

To select the starting cue number, perform the following:

Monitoring Dimmer Status in the IPS Display

IPS dimmer systems transmit their operating status back to the control console via the second wire pair in the DMX512 cable. ECLIPSE can receive and display these status transmissions.

To view the IPS STATUS display, press the *IPS* key in the Display Control keypad.

Status Overview

The basic IPS STATUS display is an overview of all dimmers in the system. This overview contains a single status summary message for each dimmer. Scroll through this display with the Up and Down Arrow keys. Dimmers which are operating nominally report as "OK". Dimmers which have a special condition report one of the following codes:

"Err"	Dimmer has an error
"NLd"	Dimmer is on, but has no load
"Foc"	Dimmer is in focus mode
"TSb"	Temperature Set-back
"FPC"	Forward Phase Control operation
" ND"	Non-Dim operation

If a dimmer does not exist, or is not reporting, the status summary is blank.

Dimmer Detail

The *Edit Box* in the IPS STATUS display allows individual dimmers to be queried for a detailed status report. The dimmer number is typed in on the first line of the box. The rest of the box contains the detailed status display.

The status report includes the line voltage, the load rating in Watts, the dimmer temperature and current output level, as well a any error conditions.
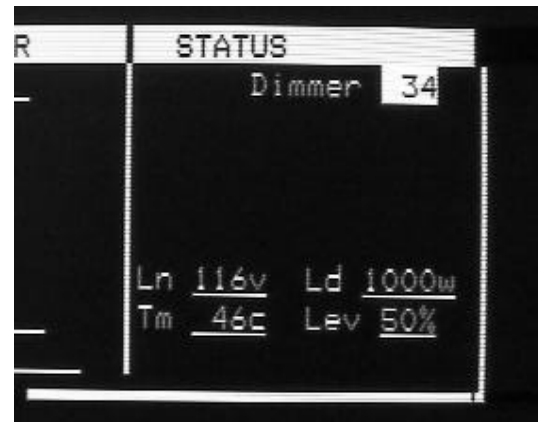
Press *F2 [TOGGLE DETAIL]* to view the Talkback data in binary format (*This is normally only of interest to the factory*).

Wybron COLORAM

ECLIPSE is capable of receiving IPS compatible Talkback from Wybron COLORAM color changers. In the Status Overview display, a DMX address which has a COLORAM will have a summary message composed of a letter "c" followed by the number of scrollers at the address. For example, "c01" means there is one COLORAM at the address. "c24" means there are 24 separate scrollers at the address. A summary message of "c--" means that even though the address is decoded by the COLORAM control box, no scroller is actual at the address.

The Dimmer Detail area reports the motion status, power supply voltage and errors for each COLORAM. In cases where there is more than one scroller on a single address, press *F3 [NEXT UNIT]* to view the status of each scroller on the address.

Sending IPS Commands

Press *F1 [IPS COMMANDS]* to open the *IPS Configuration Commands* editor. The function of this editor is described in the topic "Setting Dimmer Modes with IPS Configuration Commands".

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Setting Dimmer Modes with IPS Configuration Commands

A particularly useful feature of IPS dimmer systems is their ability to be remotely configured via Configuration Commands transmitted over the DMX512 data link. These commands may be used to set operating parameters in the dimmers which would otherwise have to be set via the menu display in each unit.

IPS Configuration Commands are transmitted in special DMX512 data packets between regular level packets. These transmissions are transient and have virtually no impact on the refresh rate of the system.

Commands may be directed to specific dimmers or packages, or may be broadcast to the entire system. The table on the next page lists the Configuration Commands which are available.

Composing IPS Configuration Commands

A special function of the IPS STATUS display is used to compose and transmit IPS Configuration Commands. Press the *IPS* key in the Display Keypad to go to the IPS STATUS display, then open the *IPS Commands* editor by pressing *F1 [IPS COMMANDS]*. The *Edit Box* now contains fields with which you can build an IPS Configuration Command.

To build an IPS Command, enter values for each of the three fields.

Press *F1 [SET DIMMER]* to open the Dimmer Number field. Type in the destination dimmer number for the command. If the command is to be sent to all dimmers, leave the field blank. If the command affects the entire pack (*Note ♦, next page*), set the dimmer number to the first dimmer in the unit.

Press *F2 [SET COMMAND]* to open the Command field. Type in the number of the command to be sent. Commands are listed on the next page.

Press *F3 [SET DATA]* to open the Data field. Type in one of the data values for the command as listed on the next page.

Press *CONFIRM* to send the Configuration Command to the named dimmer, or press *F4 [SEND GLOBAL]* to send the command to every dimmer in the system. The system responds with the message "Command Sent".

Press *CANCEL* to exit the editor and return to the IPS Status display.

> **Warning:** IPS Configuration Commands can drastically alter the performance of the dimming system! Make sure that the correct command sequence is set-up before transmitting any commands!

Configuration Examples

1.) Set dimmer 21 to always run in forward phase control mode: Press

> *F1 [SET DIMMER]*, *0*, *2*, *1*
> *F2 [SET COMMAND]*, *0*, *0*, *1*
> *F3 [SET DATA]*, *0*, *3*, *2*, *CONFIRM*

2.) Set all dimmers to use Controlled Response, and set Controlled Response Time to 400 milliseconds: Press

> *F2 [SET COMMAND]*, *0*, *0*, *9*
> *F4 [SEND GLOBAL]*

> *F2 [SET COMMAND]*, *0*, *1*, *4*
> *F4 [SEND GLOBAL]*

Setting Dimmer Modes with IPS Configuration Commands

Configuration Commands and Data Parameters

The following list details each command code followed by the data values which may be sent with it.

001 - Set Configuration Flags

016: Note A.
032: Note B.
048: Notes A & B.
064: Note C.
080: Notes A & C.
096: Notes B & C.
112: Notes A, B, & C.

002 - Clear Configuration Flags

016: Note D.
032: Note E.
048: Notes D & E.
064: Note F.
080: Notes D & F.
096: Notes E & F.
112: Notes D, E, & F.

003 - Set Non-Dim and Level

000: Clear Non-Dim mode for dimmer.
001 to 255: Set dimmer to Non-Dim mode with data value as threshold.

004 - Disable Preheat

xxx: Turn off Lamp Preheat function. ♦

005 - Enable Preheat

xxx: Turn on Lamp Preheat function. ♦

006 - Fan on Demand

xxx: Fan follows thermal demand. ♦

007 - Fan on DMX

xxx: Fan is "On" whenever console data is present. ♦

008 - Set Fastest Response

xxx: Dimmers respond to control as quickly as possible. ♦

009 - Set Controlled Response

xxx: Dimmers response is limited to time value loaded by commands 010 thru 017. ♦

010 - Controlled Response = 200 mS

xxx: ♦

011 - Controlled Response = 250 mS

xxx: ♦

012 - Controlled Response = 300 mS

xxx: ♦

013 - Controlled Response = 350 mS

xxx: ♦

014 - Controlled Response = 400 mS

xxx: ♦

015 - Controlled Response = 450 mS

xxx: ♦

016 - Controlled Response = 500 mS

xxx: ♦

017 - Controlled Response = 550 mS

xxx: ♦

018 - Load DMX Hold Time Value

000 to 255: Specifies time in minutes to hold levels on loss of console data. ♦

Notes:

A: Force short fall/rise time (250 uS).
B: Force forward phase control operation.
C: Set Linear Voltage dimming curve.
D: Allow automatic fall/rise time selection.
E: Allow automatic FPC/RPC selection.
F: Set Square Law dimming curve.

xxx: Data parameter not used by this command, it may have any value.

♦: Command affects all dimmers in a unit.

Important: DMX512 requires receiving equipment to ignore non-level data packets which it doesn't understand. Older or non-compliant DMX equipment may respond incorrectly when IPS Configuration Commands are transmitted.

ECLIPSE can write all of the data which comprises a show onto a 3 1/2 inch, high-density, DOS formatted disk. Storage of show data on disk is useful for back-up purposes, for long term storage of shows, and as a way to re-load a console in a repertory situation.

Writing a Show to Disk

Perform the following to write the console's show data to a disk:

Insert a 3 1/2 inch, high-density, DOS formatted disk into the disk drive on the left side of the console. Make sure the disk is not write protected.

Press the **DISK** key in the Display Keypad to bring up the F-Key menu for disk operations.

Press **F2** *[TO DISK]* to request the disk transfer, then **F1** *[CONFIRM]* to start it.

The system starts writing data to the disk and puts up the message "Disk Transfer Started".

Transfer of data to the disk takes approximately one minute, so be patient! The transfer time is relatively long

because the system is also keeping all of its playback functions running at the same time. Fades can be run during a disk transfer with no adverse affects.

When the disk transfer is complete, the system puts up the message "Disk Transfer Done".

Reading a Show from Disk

Perform the following to read show data from a disk:

Insert the disk containing the show data into the disk drive.

Press the **DISK** key in the Display Keypad to bring up the F-Key menu for disk operations.

Press **F1** *[FROM DISK]* to request the disk transfer, then **F1** *[CONFIRM]* to start it.

The system starts reading data from the disk and puts up the message "Disk Transfer Started".

As with writing, the transfer takes about one minute. When it is complete, the system puts up the message "Disk Transfer Done".

Items Saved on Disk

ECLIPSE creates a file named SHOWDATA.ACE on the disk. This file contains the DMX512 patch, text and level data for all 96 SceneMaster memories, all recorded Keyboard Macros, and all recorded Cues.

This file must reside in the root directory of the disk for ECLIPSE to find it. Since it is fully DOS compatible it may be copied to other mass storage devices for archival purposes.

Printing Reports

With the optional printer attached, ECLIPSE can print four reports of information contained in system memory.

Print a Cue Listing

The Cue Listing report prints one page for each cue recorded in system memory. Each page contains the cue's fade time parameters and the levels for all 240 control channels.

Press the *PRINT* key in the Display Keypad to open the *Start Print* editor.

Type in the number of the cue at which you wish the report to start, or leave this field blank if you wish to start with the first cue in memory.

Press *F1 [CUES]* to start printing the report. The system responds with the message "Printing Started".

During printing, all playback functions of the console are available. When printing is complete, the system puts up the message "Printing Done".

Print a Cue Summary

The Cue Summary report prints one line for each cue recorded in system memory. Each line contains the cue's number and its fade time parameters. No channel level information is included.

Press the *PRINT* key in the Display Keypad to open the *Start Print* editor.

Type in the number of the cue at which you wish the report to start, or leave this

field blank if you wish to start with the first cue in memory.

Press *F2 [CUE SHEET]* to start printing the report. The system responds with the message "Printing Started".

When printing is complete, the system puts up the message "Printing Done".

Print the DMX512 Patch

The Patch report prints two pages containing the system's DMX512 patch.

Press the *PRINT* key in the Display Keypad to open the *Start Print* editor.

Press *F3 [PATCH]* to start printing the report. The system responds with the message "Printing Started".

When printing is complete, the system puts up the message "Printing Done".

Print SceneMasters

The SceneMasters report prints one page for each SceneMaster which contains non-zero levels. SceneMasters which have all zero channel levels are compressed to a single line listing.

Press the *PRINT* key in the Display Keypad to open the *Start Print* editor.

Press *F4 [SCN. MASTERS]* to start printing the report. The system responds with the message "Printing Started".

When printing is complete, the system puts up the message "Printing Done".

Canceling a Printout

To cancel a printout, press the *PRINT* key during printing, then press *F1 [CANCEL PRINT]* and *F1 [CONFIRM]*. The system stops sending data to the printer and puts up the message "Print Canceled".

Using Keyboard Macros to Eliminate Repetitive Typing

Keyboard Macros are stored sequences of keystrokes which may be played back on a single button push. Macros are often used to automate sequences of key presses which must be repeated frequently. They are also used to "construct" compound system functions from simpler ones. ECLIPSE creates Macros by memorizing keystrokes as they occur on the console keyboard, and storing them into non-volatile memory.

Creating a Macro

Start the *Macro Record* process by pressing the **RECORD MACRO** key in the Cue Keypad. This tells ECLIPSE to memorize each keystroke which follows. The system puts up the message "`Macro Started`".

Press the keys necessary to perform the task you wish to automate. The console responds to the keys as normal. ECLIPSE can memorize up to 120 keystrokes for each Macro.
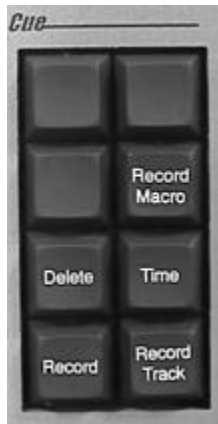
When you have completed all of the keystrokes you wish to record, press one of the 12 Macro Playback keys. The system now records the Macro into memory and associates it with the indicated playback key. The system displays the message "`RECORDED`" when it is done.

If you want to quit memorizing keystrokes without recording a Macro, simply press the **RECORD MACRO** key again. The system will cancel the *Macro Record* function and put up the message "`Macro Canceled!`".

Playing back a Macro

To playback a Macro, simply press one of the 12 Macro Playback keys. The keystrokes which were previously stored in the Macro play back into the system just as though they were being typed in manually.

Playback Context

While Macros store specific keystrokes, they do not store the context of the system when they are recorded. For instance, a Macro recorded in the LIVE display may do something entirely different than intended if played back while in the PATCH display. For this reason, it is usually a good idea to start a Macro with keys that will put the console into a known state. For example, the key sequence

   CANCEL, *CLEAR*, *LIVE*

should get the console back to a standard state regardless of what operation is pending.

Deleting a Macro

To delete a Macro from memory, press the **RECORD MACRO** key followed immediately by the Macro Playback key of the Macro you wish to delete. For example, to delete Macro 9, press

   RECORD MACRO, *M9*

with no other keystrokes between. The system removes the Macro from memory and puts up the message "`DELETED`".

Controlling ECLIPSE from Another Computer with HCI Commands

The ECLIPSE Host Computer Interface (HCI) receives serial data over the RS-232 port and converts it to internal commands to implement direct fader load and Macro playback functions.

With the HCI protocol, ECLIPSE may easily be made part of a Show Control network or be controlled from a remote location by a personal computer. The show control computer needs only to transmit simple ASCII text strings to the console to initiate playback actions or run keyboard Macros.

HCI command processing was added to ECLIPSE with release 1.08.

HCI syntax:

HCI messages operate in a "reverse polish" fashion, that is, the parameters are sent first, then the operator is sent. HCI messages consist of 0, 1, or 2 numeric parameters, and one command. They have the following forms:

Form 1:
  <command>

Form 2:
  <command>

Form 3:
  <parameter1>,<parameter2><command>

Parameters:

Parameters are composed of the ASCII digits 0 thru 9 and the period (decimal point) character. They may be up to four digits long and take on one of two forms:

nnnn   Integer value.
nnn.n   Decimal cue number.

The comma character separates parameter 1 from parameter 2 in a two parameter message.

Commands:

Commands are composed of single ASCII characters. By definition, commands terminate the pending transaction, so no carriage return or line feed characters need to be sent. The following commands are valid:

C   Clear Parameters. Reset parser.

M   Execute Macro specified in parameter.

S   Load cue in parameter1 to SceneMaster specified in parameter2.

X   Execute cue in parameter on fader X. If no parameter, press X *Go Next /Resume*.

Y   Execute cue in parameter on fader Y. If no parameter, press Y *Go Next /Resume*.

Note: All command characters must be transmitted as upper case letters. Lower case letters are ignored.

Error Handling

Message processing is very straight forward. Characters other than 0,1,2,3,4,5,6,7,8,9,C,M,S,X,Y, period, and comma are ignored. Receipt of illegal characters does not affect the state of the parser.

If too many parameters are sent, additional parameters over-write the value of parameter 2.

The decimal point simply indicates the presence of an insert type cue number. If more than one digit is sent after the decimal point, all digits shift one position to the left, i.e. "12.34" is processed as "123.4".

Extra parameters sent with commands which do not need them are ignored.

Controlling ECLIPSE from Another Computer with HCI Commands

Examples of HCI messages:

The following examples illustrate typical HCI messages.

123.4X	Get cue 123.4 and execute it on the X fader
Y	Press the Y fader *Go Next /Resume* button (Execute the pending cue).
12M	Execute macro 12.
12.5,2S	Load cue 12.5 to SceneMaster 2.
1-4*Y<**CR**>	Execute cue 14 to the Y fader (Extra characters ignored).
12C3X	Execute cue 3 on the X fader (Command C clears the parameters).

Serial Port Settings

HCI messages are transmitted with the following serial port settings:

Baud Rate:	9600
Data Bits:	8
Parity:	None
Stop Bits:	1

ECLIPSE can accept HCI commands at the full serial port speed. However, command bursts should be limited to no more than 60 characters to avoid over-running the internal buffer.

> **Note:** The HCI receiver requires BIOS version 1.2 or later to operate. Earlier BIOS versions do not enable the serial port interrupt. The BIOS version is reported in the *System Maintenance Menu* screen. If you need a BIOS upgrade, contact the ROSCO/ET factory.

Interface Cable

The ECLIPSE RS-232C port has the following pinout:

Connector:	9 pin 'D' Male.

Pin 1:	DCD input
Pin 2:	Rx Data input.
Pin 3:	Tx Data output.
Pin 4:	DTR output
Pin 5:	Ground.
Pin 6:	DSR input
Pin 7:	RTS output
Pin 8:	CTS input
Pin 9:	RI input

Cable for PC-AT

ECLIPSE	PC-AT
9 Pin 'D' Female	9 Pin 'D' Female

Rx Data ②----③ Tx Data
Tx Data ③----② Rx Data
Ground ⑤----⑤ Ground

Using the System Maintenance Menu

To facilitate system maintenance, the ECLIPSE console BIOS contains a menu of diagnostic functions.

Getting to the Menu.

There are two ways to get to the System Maintenance Menu. If the console detects a hardware error during power-up, it will bring up the Maintenance Menu, instead of running the main program. To explicitly go to the Maintenance Menu, hold down the *SETUP* key in the Display Keypad while switching on the console.

At the top of the screen are the Hardware Serial Number and the BIOS version number. You should only need to refer to these when updating your console software. If the system entered the Maintenance Menu due to a hardware error, a description of the error is shown in the upper right portion of the screen. The center of the screen contains a menu of maintenance functions.
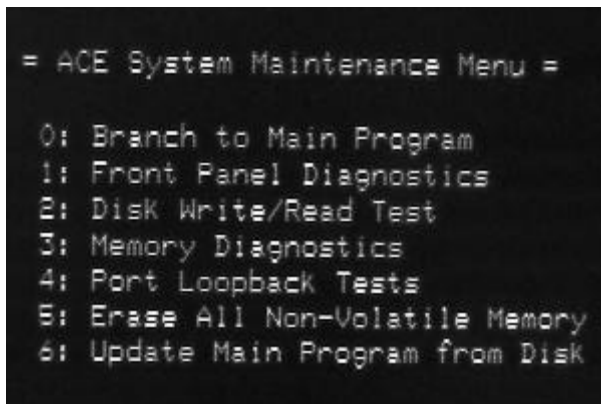
To select one of these functions, press the indicated digit on the *Number Keypad*.

When you are done with a diagnostic function, switch the console off and back on to resume normal operation.

NOTE: The DMX512 output to dimmers does not operate while the console is in the Maintenance Menu.

0: Branch to Main Program

If you got to the Maintenance Menu by mistake, or wish to ignore the reported error, press the *0* key in the *Number Keypad*. This function returns to the normal power-up sequence and attempts to run the main ECLIPSE program. If there is invalid data in the FLASH program memory, the system will fail again and return to the Maintenance Menu.

1: Front Panel Diagnostics

Function 1 executes a front panel diagnostic program. This program monitors all pots, buttons and the *Wheel* and reports their operation on the screen.

Faders:

Each fader has a dedicated display on the screen which reports its current setting. Run each fader up from "00" to "FL" and back down again. The setting is reported as a Hexadecimal value (The letters 'A' thru 'F' represent the values ten thru fifteen. '10' represents the value sixteen). Watch the value change as you go, the movement should be smooth and uniform.

Keyboard:

A value on the screen shows the key number of the most recently pressed key. Key numbers range from "01" for the *CLEAR* key in the SceneMaster Keypad to "50" for the *Y* key in the Y time fader. Press each key in turn and note its number

as it is pressed. Each key should generate a unique number. (*Note: Not every value between 01 and 50 is generated by the keyboard. Look for keys which don't respond or numbers which repeat.*)

IBM PC/AT Keyboard:

A value on the screen shows the ASCII code of the most recently pressed key on the IBM keyboard. Press each key in turn. Each should report a code appropriate to its label. (*NOTE: ECLIPSE does not respond to IBM function keys or cursor keys.*)

Wheel:

A number on the screen shows the relative movement of the wheel. Rotate the wheel up to increase the value of the number. Rotate the wheel down to decrease the value of the number. Movement of the value should be smooth and uniform.

2: Disk Write/Read Test

This function has not been implemented in BIOS versions 1.0 and 1.1. When implemented, this function will fill areas of the disk with arbitrary numbers and then read them back to verify the values.

To check disk functions without this diagnostic, write a show to disk, examine the disk in a PC to verify that the SHOWDATA.ACE file exists, clear the console memory, then read the show back in from the disk. Verify that all data has been restored to its previous values.

3: Memory Diagnostics

The Memory Diagnostic function tests all of the main system non-volatile memory.

WARNING: This test destroys all contents of non-volatile memory.   Cues, Macros, Patch, SceneMasters, and System Configuration are all lost!   Back up your show data to disk before starting!

To run the Memory Diagnostic function, do the following:

Press the *3* key in the *Number Keypad.*

The system responds with

> `3: Memory Diagnostics - Sure?`

Press **CONFIRM** to start the diagnostic.

The system puts up the message "`>>Testing NV RAM`", and begins the diagnostic. The Non-Volatile system memory is partitioned into four pages. As each page passes the test, the system puts up a period character on the screen. When all four pages have been tested, the system puts up the message "`Done`".

Should a memory location fail, the system puts up a message describing the failure and the diagnostic stops.

NOTE: The Memory Diagnostic function leaves random values in system memory. After running this function, run maintenance function 5, "Erase All Non-Volatile Memory", to clear these values.

4: Port Loopback Tests

This function tests the RS-232, MIDI and DMX512 serial communication ports on the console rear panel. It requires special "loopback" connectors to be installed on each port. To run the diagnostic, perform the following:

Press the *4* key on the *Number Keypad.*

The system responds:

> `4: Port Loopback Tests - Install`
> `Connectors - Ready?`

Install the three loopback connectors and press **CONFIRM** to start the test.

The system test the DMX512 port, the RS-232 port, and the MIDI port in turn by transmitting, receiving, and verifying 256 values on each port. A period character is displayed on the screen for each value. If

all values verify for the port, the system displays the message "OK!" and goes on to the next port. If all ports pass, the system puts up the message "Done".

If the diagnostic fails to receive data on a port, the test will stall at that point. If it reads back something other than what was transmitted, the difference is reported on the screen and the test terminates.

Be sure to remove the connectors before running the main program.

NOTE: If you are handy with a soldering iron, you can build your own loopback connectors.

DMX: Male XLR-5 connector. Connect pin 2 to pin 4. Connect pin 3 to pin 5.

MIDI: Connect a standard MIDI cord between MIDI-IN and MIDI-OUT.

RS-232: Female 9-pin 'D' connector. Connect pin 1 to pins 4 and 6. Connect pin 2 to pin 3. Connect pin 7 to pins 8 and 9.

5: Erase All Non-Volatile Memory

This function writes a value of zero into all locations in non-volatile system memory. This effectively erases all Cues, Macros, and SceneMasters, the system Patch and Configuration. To execute this function, perform the following:

Press the **5** key on the *Number Keypad*.

The system responds with

```
5: Erase All Non-Volatile Memory
- Sure?
```

Press **CONFIRM** to start the function.

The system clears the memory then puts up the message "Done".

NOTE: This function erases the stored value of the video configuration. If you are using a color video monitor, you must reset the configuration as described on page 10 of this manual.

6: Update Main Program from Disk

This function installs new console operating software from an ECLIPSE software update disk. To execute the function, perform the following:

Insert the software update disk into the disk drive (make sure it is not write protected!).

Press the **6** key in the *Number Keypad*.

The system responds with

```
6: Update Main Program from Disk
- Sure?
```

Press **CONFIRM** to start the update.

The system verifies the serial number and data on the disk, then starts re-programming itself. This is a slow process (about 10 minutes), so be patient.

IMPORTANT: Do not interrupt the power to the console during the update process. If power fails during update, the operating program will not run correctly and you will have to re-install the software.

When the console reports "Update Complete", remove the disk from the drive and switch the power off and back on again. You should now be running the new operating program.

NOTE: The update disk is not DOS compatible and will be serialized when used to update your console. If it is write protected or has been serialized for another console, the update will fail.

Specifications Summary

Power Source:
    Voltage: 85 to 260 VAC
    Frequency: 47 to 440 Hz
    Fuse: 2 Amp, 250 Volt, Type GMA *(Inside Power Supply)*

DMX512 Output:
    Connector: XLR-5 Female
    Packet Length: 512 Data Bytes
    Break Duration: Approximately 160 microseconds
    Mark after Break: Approximately 20 microseconds
    Refresh Frequency: Approximately 20 Hz

Video Output:
    Connector: 9 pin 'D' Male *(IBM MDA Compatible)*
    Color Signal: RGBI, TTL
    Monochrome Signal: TTL

MIDI In, Thru, Out:
    Connector: 5 pin DIN Female
    Protocol: Undefined

RS-232:
    Connector: 9 pin 'D' Female
    Protocol: ROSCO/ET Host Computer Interface (HCI)

Printer Output:
    Connector: 25 pin 'D' Female
    Interface: Centronics Parallel
    Protocol: HP PCL Level 3

ASCII Keyboard:
    Connector: 5 pin DIN Female
    Type: IBM PC/AT Compatible

Mouse:
    Type: PS/2 serial

Disk Drive:
    Size: 3 1/2", High Density (1.44Mb)
    Format: DOS

Data Protection:
    Non-volatile RAM: NVSRAM w/ internal lithium battery

CodeStore:
    BIOS: EPROM
    Application: FLASH memory, writable from Disk

Enclosure:
    Temperature Range: 0 - 35 °C   (32 - 95 °F)
    Humidity: No more than 95% non-condensing
    Weight: 13 pounds
    Dimensions: 12.5" by 27" by 3.5"

Connector Pin-Outs

DMX512

Type	5 Pin XLR Female
Pin 1	Shield
Pin 2	Dimmer Drive -
Pin 3	Dimmer Drive +
Pin 4	Talkback -
Pin 5	Talkback +

Video

Type	9 Pin "D" Female

Monochrome Configuration

Pin 1	Ground
Pin 2	Ground
Pin 3	NC
Pin 4	NC
Pin 5	NC
Pin 6	Intensity
Pin 7	Video
Pin 8	Horizontal Sync.
Pin 9	Vertical Sync.

Color Configuration

Pin 1	Ground
Pin 2	Ground
Pin 3	Red
Pin 4	Green
Pin 5	Blue
Pin 6	Intensity
Pin 7	NC
Pin 8	Horizontal Sync.
Pin 9	Vertical Sync.

MIDI

Type	5 Pin DIN (180 Deg.) Female
Pin 1	NC
Pin 2	NC
Pin 3	NC
Pin 4	Current Source
Pin 5	Current Sink (Data)

RS-232

Type	9 Pin "D" Male
Pin 1	DCD Input
Pin 2	RX Data
Pin 3	TX Data
Pin 4	DTR Output
Pin 5	Ground
Pin 6	DSR Input
Pin 7	RTS Output
Pin 8	CTS Input
Pin 9	RI Input

Printer

Type	25 Pin "D" Female
Pin 1	Strobe
Pins 2 thru 9	Data Bits 0 thru 7
Pin 10	ACK
Pin 11	Busy
Pin 12	Paper End
Pin 13	Select
Pin 14	Auto Feed
Pin 15	Error
Pin 16	Init
Pin 17	Select
Pins 18 thru 25	Ground

DMX512

ECLIPSE generates its DMX512 signal in complete compliance with the USITT DMX512/1990 Standard. Signal timing parameters are as follows:

Packet Length:	512 Data Bytes
Break Duration:	Approximately 160 uS
Mark after Break:	Approximately 20 uS
Byte to byte time:	Approximately 60 uS
Refresh Frequency:	Approximately 20 Hz

Start Code for IPS Commands: '09'

Video

ECLIPSE can be configured to produce either monochrome or color TTL video signals. Signals are as follows:

Monochrome

Horizontal Frequency	17.4 KHz
Vertical Frequency	54 Hz
Vertical Sync. Polarity	Positive

Color

Horizontal Frequency	17.4 KHz
Vertical Frequency	54 Hz
Vertical Sync. Polarity	Negative

MIDI

MIDI hardware is included in all ECLIPSE consoles. Future software enhancements will support remote control operation via MIDI. Watch for ROSCO/ET mailings announcing new software options for your console.

RS-232

ECLIPSE supports remote control operation via RS-232 Serial Port with Host Computer Interface (HCI) commands. These commands are ASCII text strings transmitted to the console at 9600 baud.

Serial port settings are 8 data bits, 1 stop bit, no parity.

Printer

ECLIPSE supports the standard IBM-PC Centronics parallel port interface to printers. All reports are designed for sheet fed printers using 8-1/2 x 11 inch paper and HP PCL level 3 control protocol. A variety of inexpensive ink jet and laser printers meet these requirements.

IBM PC/AT Keyboard

ECLIPSE supports a standard IBM PC/AT style ASCII keyboard. Current software uses the keyboard to title SceneMasters. Future software will add keyboard functions. Watch for ROSCO/ET mailings announcing new software options for your console.

Mouse

Mouse Port hardware is included in all ECLIPSE consoles. Future software enhancements may support a pointing device or track ball. Watch for ROSCO/ET mailings announcing new software options for your console.

The mouse interface supports a Microsoft serial mouse with a PS/2 connector.

Disk

ECLIPSE uses DOS formatted 3 1/2", High Density (1.44 Mb) disks. Disks must be pre-formatted. Do not attempt to use double density (720 Kb) disks!

The console creates two files in the root directory of the disk, SHOWDATA.ACE and SHOWDATA.BAK. The console does not search sub-directories for these files.

Basic Trouble Shooting

Many apparent faults in complex systems such as a lighting control installation are due to operator error or to conditions which have occurred outside of the console itself. In cases where operating problems have been encountered, run through the following checklist before searching for defective equipment.

Preliminary Checklist

- Check the power at the outlet. Is it present and of the correct voltage?

- Is the ECLIPSE plugged in and turned on?

- Is the video monitor plugged and turned on? Is its power LED illuminated?

- Is the video cable securely connected to the ECLIPSE rear panel?

- Are the monitor's brightness and contrast controls set correctly?

- Has the correct video mode been set in the console?

- Is the DMX512 output cable securely connected to the ECLIPSE rear panel?

- Is the console patched correctly?

- Is the Grand Master down?

- If an operation gave an unexpected result, try it again in a slow and methodical manner. Check the Operations Reference to make sure the actual behavior of the function is clearly understood.

Symptoms & Actions

No video picture

Power to console & monitor? Video cable plugged in? Brightness & contrast adjusted correctly? Monitor set for TTL input? Console set for correct monitor type?

No lights come on

Dimmer bank power on? Distribution amplifier power on? Lights plugged in or hard patched? Console patched? Channels up? Grand Master up? Moving fixtures power on? HMI lamps struck? Fixtures in DMX512 operating mode?

Lights do not behave correctly

DMX512 distribution installed correctly? Cables damaged or mis-wired? Cable termination set correctly? Dimmer addresses set correctly? Moving fixtures in DMX512 operating mode? Fixture addresses set correctly?

Keys or Faders do not function

Run front panel diagnostic.

Disk operation fails

Correct type of disk? Disk write protected? Disk formatted? SHOWDATA.ACE file on disk? SHOWDATA.ACE file in root directory?

Even after you fully understand the operation of your ECLIPSE, you must still think of it as a component in a larger lighting system. The following publications discuss these system-wide issues and may be helpful.

ROSCO/Entertainment Technology Publications

The following publications may be obtained through your ROSCO/ET dealer, or directly from the factory.

Intelligent Power System, Operating Instructions & Installation Guide: Dimmers, Distribution Amplifiers, Status Monitor, & Auxiliary Control.
Publication Y08-0203.

This is a combined User Guide and Installation Guide for the full range of IPS dimming and distribution products.

Intelligent Power System, Up and Running: How to Install DMX512.
Publication Y08-0215.

This is a practical "how-to" guide written for installers and specifiers.

Intelligent Power System DMX512 Signal Distribution.
Application note AN-604.

This ap-note takes a question and answer format. It is written for someone who is planning a DMX512 distribution system.

USITT Publications

The following publications may be obtained from United States Institute for Theatre Technology, 10 West 19th Street, Suite 5A, New York, NY 10011-4206.

DMX512/1990 Digital Data Transmission Standard for Dimmers and Controllers.

This is the official definition of the dimmer control protocol used by ECLIPSE.

Recommended Practice for DMX512 A guide for users and installers, By Adam Bennette.

This is a joint publication of PLASA and USITT. It is a very thorough and detailed document which may be as useful to equipment designers as to end users.

If you were paying attention as you read this list, you noticed that most of these publications cover DMX512. This is not an accident. DMX512 appears simple at first glance, but can be maddeningly difficult to tame in the real world. If you've never had to deal with it before, get a couple of these publications and read them thoroughly. You'll gain a whole new perspective on what is actually going on in the space between your console and dimmers!

ROSCO / Entertainment Technology

2181 NW Front Avenue, Portland, Oregon 97209

Y08-0217