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LIGHTBOARD M

OPERATION GUIDE

Enclosed please find an abbreviated operations guide to the LBM control console. This document supercedes any previous guide, as there has been an operational change regarding independent function. (See Page 8) This change is effective with software version 1B. Please note that the software version is displayed in the diagnostics program.

I hope this proves helpful to you. Manuals will be shipped with all consoles.
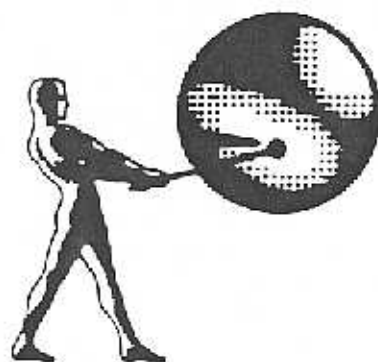
Regards,

Anne Morris

Strand Lighting

LIGHTBOARD M

LIGHTBOARD M

Operations Guide

Note: Throughout this text, (   ) indicates a button. This is
an abbreviated operations guide to the LightBoard M console. It
describes the basic functions of the system.

DISPLAYS

Seven different screens are provided for system information
display. These displays are accessed by the buttons indicated
and will provide the following information. The (SETUP)
(CUE SHEET) and (STAGE) buttons are for display purposes only.
The remaining buttons referenced also serve to access operations.

(SETUP)

Displays the menu and allows access to system configuration
functions, disk and printer functions, recording function keys,
and associated peripheral operations.

(CUE SHEET)

Provides a numeric listing of cues and associated attributes.
Command line attributes may be edited in this mode, as well as in
the stage and preview modes.

(STAGE)

Displays active channel and level information. This mode allows
setting and modification of lighting levels for cues and
submasters. Changes can be made to associated command lines.
Provides display of fader information.

(PATCH)

When followed by a number (1 - 4) (*) displays the dimmer to
channel assignments for the specified patch table. Allows
preview and modification of active patch as well as inactive
patches. Allows proportional level and 6/12Kw assignments.

(CUE)

When followed by a (Cue #) (*) accesses the preview display
of the specified cue, with the recorded channel/level
information. Allows modification without affecting stage output.
If a number is entered (from 1 - 200) that has previously been
defined as an effect number, the system will provide an error
indication.

(FX MEM)

When followed by a (Cue #) (*) displays the selected FX
memory store. Allows selection of type of effect, creation of
chase steps, and recorded step times. If a number is entered
(from 1 - 200) that has previously been defined as a cue number,
the system will provide an error indication.

(SUB)

When followed by (*), provides a listing of the system
submaster and their associated cue assignments. If a submaster
has been loaded with channels directly via the submaster buffer,
an amber 0 will be displayed under the cue listing. If a cue has
been loaded, and then that cue modified via the submaster buffer,
that cue number will be displayed in amber. If a cue has been
loaded and no modifications are made, the cue number will be dis-
played in blue.

When followed by a number (1 - 56) (*) accesses the specified
submaster store directly, allowing preview and modification of
channel levels.

SETUP PROCEDURES

Command Summary

To enter the setup menu, press (SETUP).   The following is
displayed:

LIGHTBOARD M

```
 1  -  # of DIMMERS - ###
 2  -  # of CHANNELS - ###
 3  -
 4  -  Load Memory From Disk
 5  -  Load Disk From Memory
 6  -  Format Disk
 7  -
 8  -  Clear Memory
 9  -  Clear Cues
10  -  Clear Patch
11  -  Function Keys
12  -
13  -  Print Cuesheet
14  -  Print Cues
15  -  Print Patch
16  -  Print Submasters
17  -  Halt Printer
18  -
19  -  Remote Focus On/Off
```

To set the number of DIMMERS, access procedure 1, press:
    (1) (*)
Select the number of dimmers desired (384 for example), press:
    (3) (8) (4) (*)

To set the number of CHANNELS, access procedure 2, press:
    (2) (*)
Select the number of channels desired (96 for example), press:
    (9) (6) (*)

Note: The number of dimmers and control channels may be changed
at any time without affecting the recorded memory. It is pos-
sible to set the system for any number of channels between 1 and
96, regardless of the number of channel potentiometers physically
present on the console.

To LOAD the MEMORY from the disk, insert the appropriate disk in
the drive, press:
     (4) (*) (*)

To LOAD the DISK from memory, insert the appropriate disk in the
drive, press:
     (5) (*) (*)

To FORMAT a DISK, insert a new disk in the drive, press:
     (6) (*) (*)

Note, new disks must be formatted prior to initial use. If a
disk procedure fails due to mechanical failure such as a disk
drive door open, defective or uninitialized disk, the system will
provide an error indication. It is possible for cues to be ac-
tive while a disk procedure is in effect; however, they should
not be "running" (changing levels) while a disk procedure is
underway.

To CLEAR MEMORY, press:
     (8) (*) (*)

To CLEAR CUES only, press:
     (9) (*) (*)

To CLEAR a PATCH table (3 for example), press:
     (1) (0) (*) (3) (*) (*)

To CLEAR all PATCH tables, press:
     (1) (0) (*) (1) (THRU) (4) (*) (*)

Note: The clear patch action restores all channels to a one dim-
mer to one channel assignment, up to the number of channels for
which the system is set. Clearing the patch does not clear those
dimmers assigned as 6Kw and 12Kw dimmers.

To record a FUNCTION KEY, press:
     (1) (1) (*)
This will enter a sub display which shows a listing of 8 function
key numbers. To record a series of commands in, for example,
function 1, press:
     (1) (*)

Begin entering commands. For example, if the operator wanted
function 1 to load cue 1 onto the X playback fader and load sub-
masters 1 thru 5 with 5 cues, beginning with cue 2, the following
keystrokes would be entered. These are actual duplications of
the keystrokes required in live mode to make this action occur:
        (CUE) (1) (X) (SUB) (1) (THRU) (5) (@) (2) (*)
        (*) (FUNCTION) (*)

The (FUNCTION) (*) command ends the record action for Function
key 1. To duplicate this command string, all the operator needs
to do is press (FUNCTION) (1) (*). There are 8 function key
listings, each can accept up to 32 keystrokes. Function keys are
not cleared with a memory clear procedure. They are cleared in-
dividually in the SETUP mimic by entering the desired function
key number and entering no information, but (FUNCTION) (*).

These command strings are, however, recorded on disk. The disk
will overwrite the function keys with new information if
required. The actions of these 8 function keys can also be
accessed remotely, with a simple contact closure.

To PRINT the CUE SHEET display, press:
        (1) (3) (*) (*)

To PRINT a range of the CUE SHEET display (1 thru 5 for example,
press:
        (1) (3) (*) (1) (THRU) (5) (*)

To PRINT CUES, press:
        (1) (4) (*) (*)

To PRINT a range of CUES (1 thru 5 for example), press:
        (1) (4) (*) (1) (THRU) (5) (*)

To PRINT all PATCH assignments, press:
        (1) (5) (*) (*)

To PRINT a specific PATCH assignment, (1 for example), press:
        (1) (5) (*) (1) (*)

To PRINT the SUBMASTER stores, press:
        (1) (6) (*) (*)

To PRINT a range of the submaster stores (for example, 1 and 5),
press:
        (1) (6) (*) (1) (AND) (5) (*)

To HALT the PRINTER, press:
     (1) (7) (*)

It is possible to continue working on the console while the prin-
ter in is operation.

To activate the REMOTE FOCUS if off, press:
     (1) (9) (*) (*)
To deactivate the REMOTE FOCUS if on, press:
     (1) (9) (*) (*)

PATCH COMMANDS

To enter an inactive Patch display (i.e. Table 1), press:
     (PATCH) (1) (*)

To load an inactive Patch, press:
     (PATCH) (1) (*) (*)

To enter the active Patch, press:
     (PATCH) (*)

Patch a dimmer (e.g. 1) to a channel (e.g. 4), press:
     (1) (@) (4) (*)

Patch a dimmer (1) to a channel (4) with a proportional
level (e.g. 50%), press:
     (1) (@) (4) (@) (5) (0)

To change a dimmers (1) proportional level (55%), leaving the
existing channel assignment, press:
     (1) (@) (@) (5) (5)

To reset a dimmer (1) to full, press:
     (1) (@) (FULL)

To unpatch a dimmer (1), press:
     (1) (@) (*)

To patch a dimmer as a 6k/12K (e.g. 9 and 10), press:
     (9) (+) (1) (0) (*)

(AND) and (THRU) can be used to construct a dimmer list.

To identify all dimmers patched to a channel (e.g. 7), press:
     (@) (7) (*)

To copy a patch to another patch, press:
     (PATCH) (#) (@) (PATCH) (#) (*) (*)

Note: When in Patch mode, the system assumes the first number
entered will be a dimmer number unless told otherwise. The com-
mand line will automatically clear when a number has been
selected after an " * " has been entered. The same is true after
a 2 digit entry has been made for levels. Any changes made in
the active patch are immediate. A proportional level of full is
assumed by the system unless otherwise advised. Pressing the
(CLEAR) key will delete the last attempted entry, and clear the
error indication.

DIMMER CHECK

From Stage mode, set a dimmer (1) at a level (full), bypassing
any channel information for that dimmer, press:
     (DIM) (1) (@) (FULL)

To set the next dimmer (2) at the same level (full), causing
the current dimmer (1) to restore to any relevant channel
levels, press:
     (NEXT +1)

To set another dimmer (4) at a level (50), causing the current
dimmer (2) to restore to any relevant channel levels, press:
     (DIM) (4) (@) (5) (0)

To set the previous dimmer (3) at the same level (50), press:
     (LAST -1)

Note: Dimmers can be set at any level, (NEXT +1) and (LAST -1)
simply increment and decrement through the dimmer list, setting
the next accessed dimmer at the same level as the previous
dimmer. Selecting another dimmer will cause the previous dimmer
to extinguish. Selecting any other function will abort the dim-
mer mode.

CHANNEL ADDRESS

To set a channel (1) at a level (50%), press:
     (1) (@) (5) (0)

To set a channel (1) at full, press:
     (1) (@) (FULL)

To set a group of channels (1 thru 5) at a level (75%), press:
     (1) (THRU) (5) (@) (7) (5)

To set a group of channels (1 thru 5 and 7 thru 11) at a level
(80%), press:
     (1) (THRU) (5) (+) (7) (THRU) (1) (1) (@)
     (8) (0)

To access all channels with levels above zero for adjustment with
the scrollers, press:
     (*)

Use the (^) button to raise levels and the (v) button to
lower levels.

A channel that has been provided a level by the keypad (rather
than the potentiometer, a playback fader or a submaster) will
have its level displayed with white characters on a red video
block, and will be called independent. To return an independent
channel to the control of other input sources, the channel can be
scrolled up or down with the (^) or (v) keys. A channel that
is on the scroller will have the actual channel number displayed
in red on white. When the level is matched with that of another
source, the channel will be returned to that other source. The
channel levels may also be matched with the keypad. Or all chan-
nels on independent may be returned to their source input by
pressing:

(@) (*) (*)

When an independent channel has returned control to another
source, that channel will no longer be displayed in red, but will
be displayed in green or yellow, depending on direction of
movement.

                            RECORDING

Set channels as required.

To record a cue (1), press:
     (REC LIVE) (1) (*)

To record a cue (2) with a time fade (e.g. 5 seconds), press:
     (REC LIVE) (2) (TIME) (5) (*)

To record a cue (3) with an up fade (channels increasing in intensity in 5 seconds) and a separate value for the down fade (channels decreasing in intensity in 10 seconds), press:
    (REC LIVE) (3) (TIME) (5) (+) (1) (0) (*)

To record a cue (4) with a time fade (5 seconds), with a delay on the initiation of the up fade (2 seconds), press:
    (REC LIVE) (4) (TIME) (5) (DELAY) (2) (+) (*)

To record a cue (5) with an up fade (10 seconds), a down fade, (5 seconds) and a delay on the down fade (5 seconds), press:
    (REC LIVE) (5) (TIME) (1) (0) (+) (5) (DELAY)
    (+) (5) (*)

To record a cue (6) with a fade time (.5 seconds) and an autofollow to the next cue (after 10 seconds), press:
    (REC LIVE) (6) (TIME) (.) (5) (WAIT) (1) (0)
    (*)

Note: The wait time will begin counting from the moment the cue is executed. The next available cue will begin 10 seconds later.

Cues can be recorded with (REC A) in the same manner. This will record only the channel levels provided by A fader potentiometers, regardless of the setting of the grand master or the A Fader Master.

It shall be possible to edit the command line by calling up the appropriate cue number, assigning a new value to any of the functions and pressing (*). Previously recorded values will remain a part of the command structure. For example, to change the time of a cue (2) to a different fade time (10 seconds), press:
    (CUE) (2) (TIME) (1) (0) (*)

This action can be taken in the Live, Preview (Cue) or CueSheet display, without affecting stage levels or recorded channel levels.

To delete any value, address the cue, access the function and assign no value. For example, to delete a wait time (10 seconds) for a cue (6), press:
    (CUE) (6) (WAIT) (*)

This action can be taken in the Live , Preview (Cue) or CueSheet display, without affecting stage levels or recorded channel levels.

To copy a cue (3) to an unrecorded cue number (10), press:
    (CUE) (3) (@) (1) (0) (*)

To overwrite an existing cue (10), with another cue (5), press:
    (CUE) (5) (@) (1) (0) (*) (*)

The system will ask for a confirmation as that cue is already
recorded. The entire command line for the first cue will be
copied to the second cue.

To delete a cue (10), press:
    (CUE) (1) (0) (@) (*) (*)

PLAYBACK

Load fader X with a cue (1), press:
    (CUE) (1) (X)

Playback the cue (1) loaded in the X fader, press:
    (GO)

To stop the cue (1) playing back on the X fader, press:
    (STOP)

Reverse the cue (1) playing back on the X fader, press:
    (STOP)

Load fader A with a cue (3), press:
    (CUE) (3) (A)

Note that override of recorded time fades is possible with the
rate adjustment pots over the playback faders. Time fades ad-
justments are possible on the X fader from 0 to 4 minutes and on
the A/B faders from Manual to 4 minutes.

Place a fader (X) in sequence mode, press:
    (SEQ)

PREVIEW MODE

Preview a cue (1), press:
    (CUE) (1) (*)

Can use (NEXT +1) and (LAST -1) to step through the cue display.

Changes can be made to channel levels in this mode, any change
made is automatically recorded in the displayed cue.

To change a channel level (channel 1 at 50) in a group of cues
(1 thru 5), press:
    (1) (@) (5) (0) (*) (*)

FX MEMORIES

To select an unrecorded memory (200) and enter effect mode,
press:
    (FXM) (2) (0) (0) (*)

A display will be provided showing the different types of effects
which are possible.

        1 - forward channel chase
        2 - reverse channel chase
        3 - bounce channel chase
        4 - forward channel chase, with build
        5 - reverse channel chase, with build
        6 - bounce channel chase, with build
        7 - forward memory chase
        8 - reverse memory chase
        9 - bounce memory chase

The system will default to type 1, a forward channel chase. Con-
firm type one by pressing:
    (*)

Or select a different attribute (4 - forward channel chase with
build), press:
    (4) (*)

A display is provided, showing 96 steps. If attributes 1 - 6
have been selected, a space is provided beneath each step to en-
ter a channel number.

To assign a channel (1) to a step (1), press:
    (1) (@) (1) (*)

Continue setting steps as required.

To record a step time (.1 of a second), press:
    (TIME) (.) (1) (*)

Once an effect memory has been defined as a channel chase, it may
be re-assigned as any other channel chase type (1 - 6). It may
not be re-defined as a memory chase. If an effect memory has
been defined as a memory chase, it may be re-assigned as any
other memory chase type (7 - 9). It may not be re-defined as a
channel chase. This is to protect the operator from attempting
to play back channels above 96 (since there are a potential of
200 memory locations) or to playback memories which may have been
assigned as other effects memories.

To playback an FX memory (200) on an FX fader (1), press:
    (FXM) (2) (0) (0) (FX 1) (S/S)

Raise the fader handle for FX1. If the time pot is set all the
way to the right, the effect will step in 1/10 of a second. If
the time pot is set all the way to the left (MANUAL), each press
of the (S/S) button will advance the effect by one step. Between
those two, it is possible to override the recorded step time be-
tween 1/10 of a second and 3 seconds.

SUBMASTERS

To preview the submaster display, press:
    (SUB) (*)

Any submaster which have been loaded with a cue will have that
cue number displayed below it in blue. If the recorded levels of
that cue have been altered via the submaster buffer, the cue num-
ber will be displayed in amber. If the submaster buffer has been
accessed directly and channel levels assigned, an amber 0 will be
displayed below the submaster number.

To load a submaster (1) with a cue (1), press:
    (SUB) (1) (@) (1) (*) (*)

To load a group of submasters (1 > 5) with cues beginning with
a certain number (1), press:
    (SUB) (1) (THRU) (5) (@) (1) (*) (*)

To unload a submaster (1), press:
    (SUB) (1) (@) (*) (*)

To modify a submaster or add channels directly, select the
required submaster (e.g. 1), press:
    (SUB) (1) (*)

A display is provided, showing the channel assignments for sub-
master 1. Access these as you would a cue in preview.