LPC Users Manual

leprecon®

Lighting for Professionals

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LPC 48 / 96 Users Manual

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For LPC software versions 1.0x.9, V1.1 and above

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Introduction

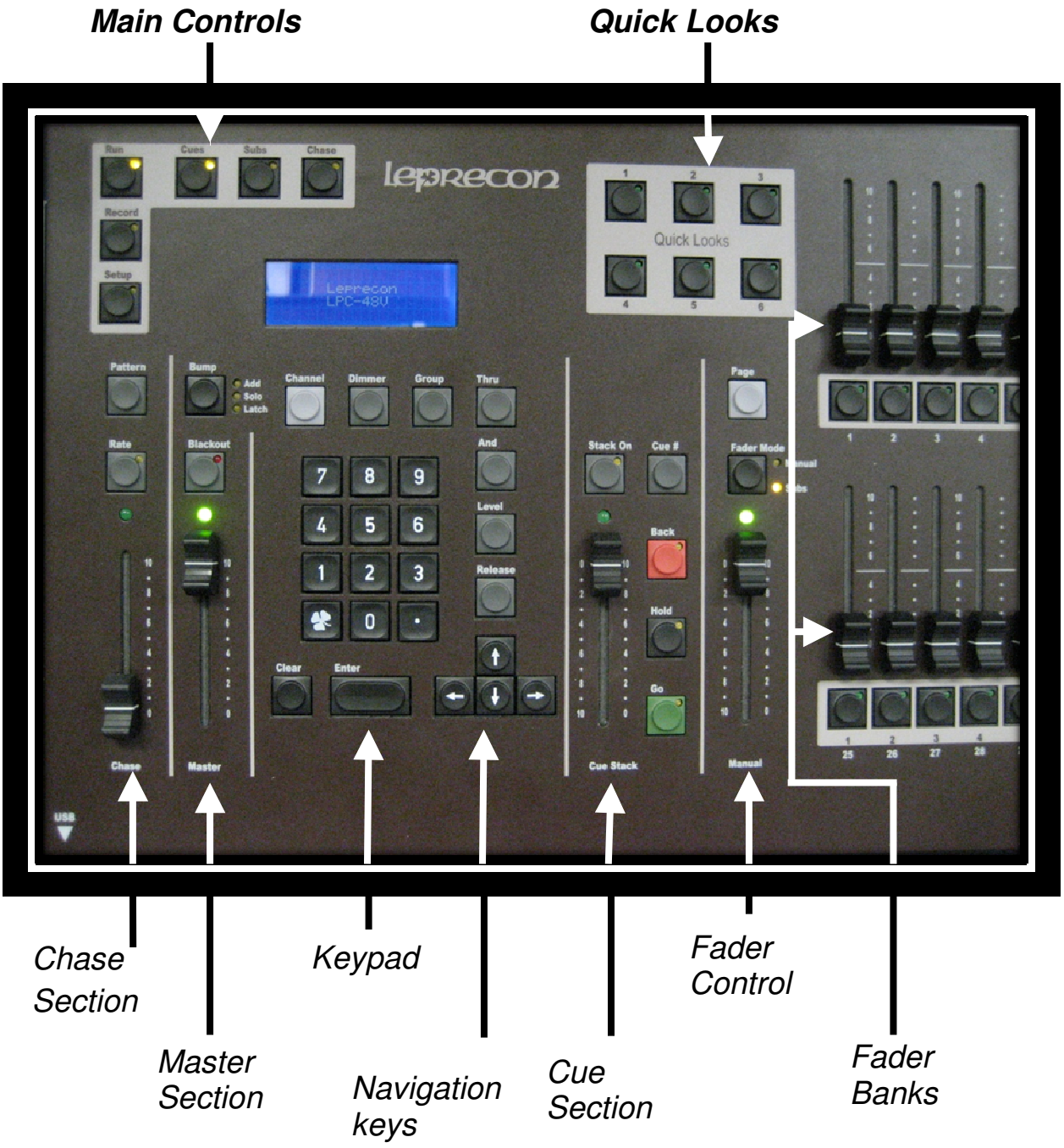
The LPC console is perfect for users who desire a basic approach to lighting but require the feature set that will grow along with their needs. Theatres, Houses of Worship, Schools, Production, and Rental Houses can use this console and keep it up-to-date with new expanding lighting technology.

The information of the LPC manual is broken down into the following sections:

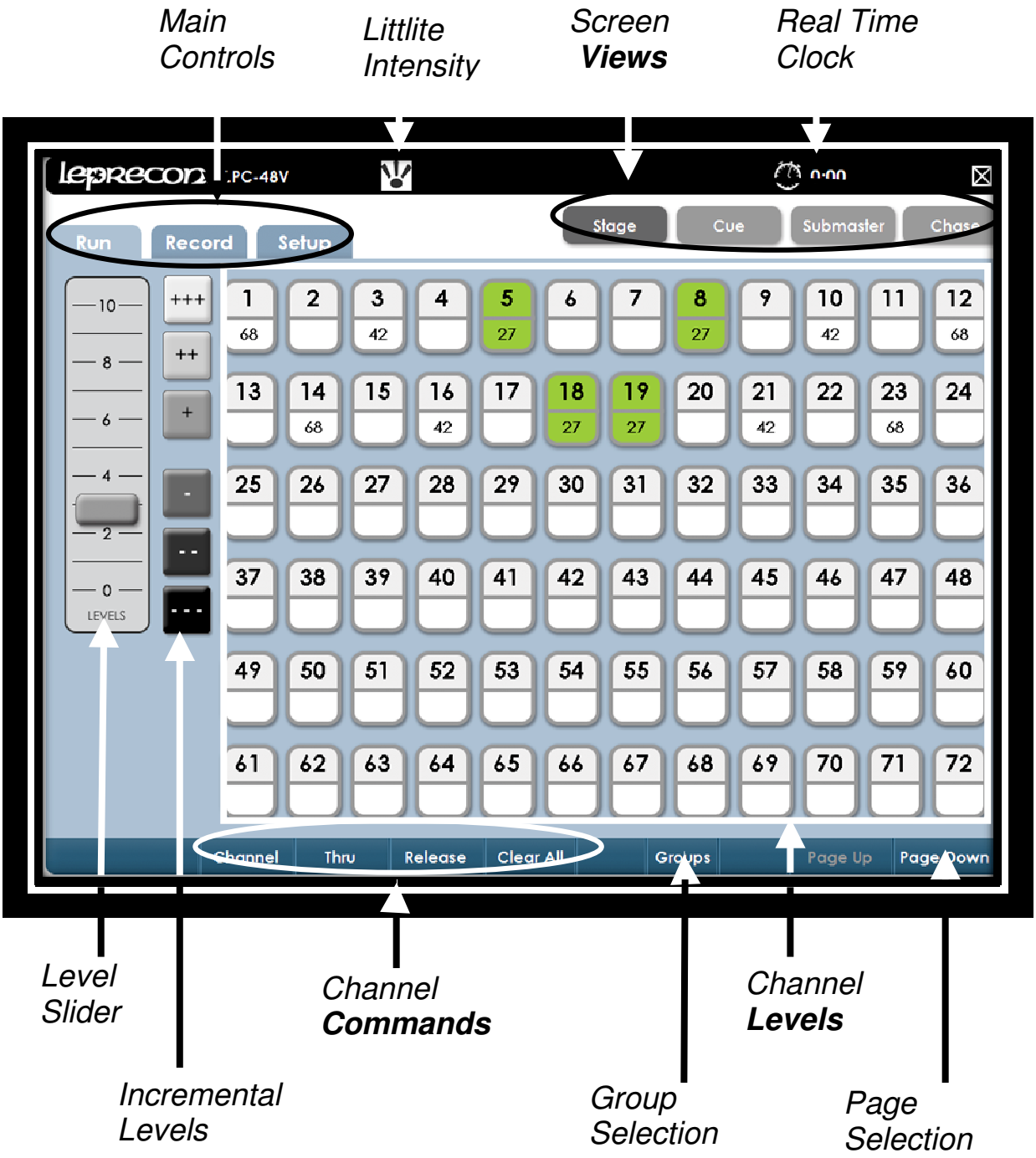
- The Setup of console's operation using patch, parameter settings, default timing, and software updates.
- Manual playback of the console output using faders, bump buttons, and video interface.
- Submasters – Recording, running, and preview of stored scenes using the page and Submaster method.
- Cues – Recording, running, and preview of stacked cues using a more controlled theatrical approach.
- Chases –Recording, running and preview of lighting effects by manipulating the sequence, speed, and fade time.
- Wireless DMX setup and operation.
- Glossary of terms used in console operation

Additional copies of the LPC manual can be acquired through the Leprecon website at www.leprecon.com.

LPC Console Layout



Video Interface Layout



1. Specifications

The following specifications may be changed at any time without notice. Future software upgrades may affect these system specs.

1.1. Channel capacity

The LPC-48V and LPC-96V manages up to 512 control channels.

1.2. DMX dimmers

Controls 2 Universes of 512 DMX channels for a total of 1024 DMX channels.
Industry standard 5 pin XLR connectors are used.

1.3. Power Supply

LPC uses an internal power supply, operating over a voltage range of 85 to 260 VAC. No separate power adapter is used. Line cord connection is IEC C12.

1.4. Peripherals

LPC can be used with a standard USB mouse and keyboard.
A standard VGA monitor and USB mouse are needed for operation. Monitor resolution is 1024 x 768.
ELO touchscreen monitors are supported by LPC, allowing easy touch control instead of using a mouse. Touch calibration is matched to the ELO1529 series only. Larger monitors can be used for display, but the touch control will not be calibrated.

1.5. Show Storage

All show data is stored on internal flash. Internal show can be backed up to USB flash memory.

1.6 Work Lights

The LPC has provisions for two 12 VDC work lights (Littlites®). The 4 pin XLR connectors are located on the far left and right of the console's back panel.

1.7 Accessories

An optional road case and dust cover can be ordered.

2. Startup

2.1. Connecting to your system

1. Connect the monitor to the Video port. The LPC has a fixed 1024 x 768 resolution.
2. Connect a USB mouse and keyboard, if needed.
3. If an ELO touch screen is being used, connect the USB from touch screen monitor.
4. Connect 5 pin DMX data cable(s) to DMX A or B connector(s).
5. Connect the AC power cord.
6. Turn on the Power switch.

See section 8, if using the optional wireless DMX transmitter

2.2. Back Panel Connections

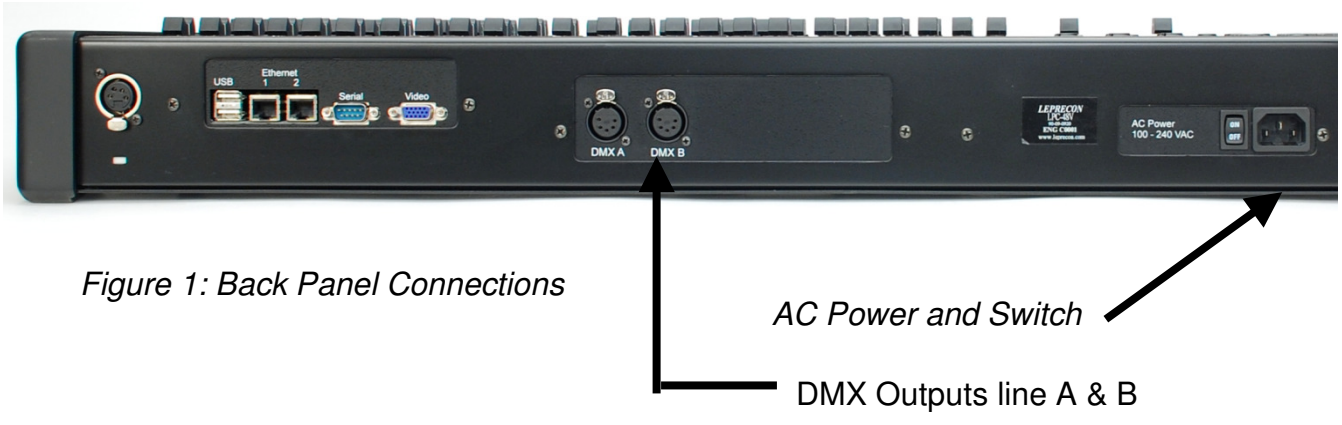
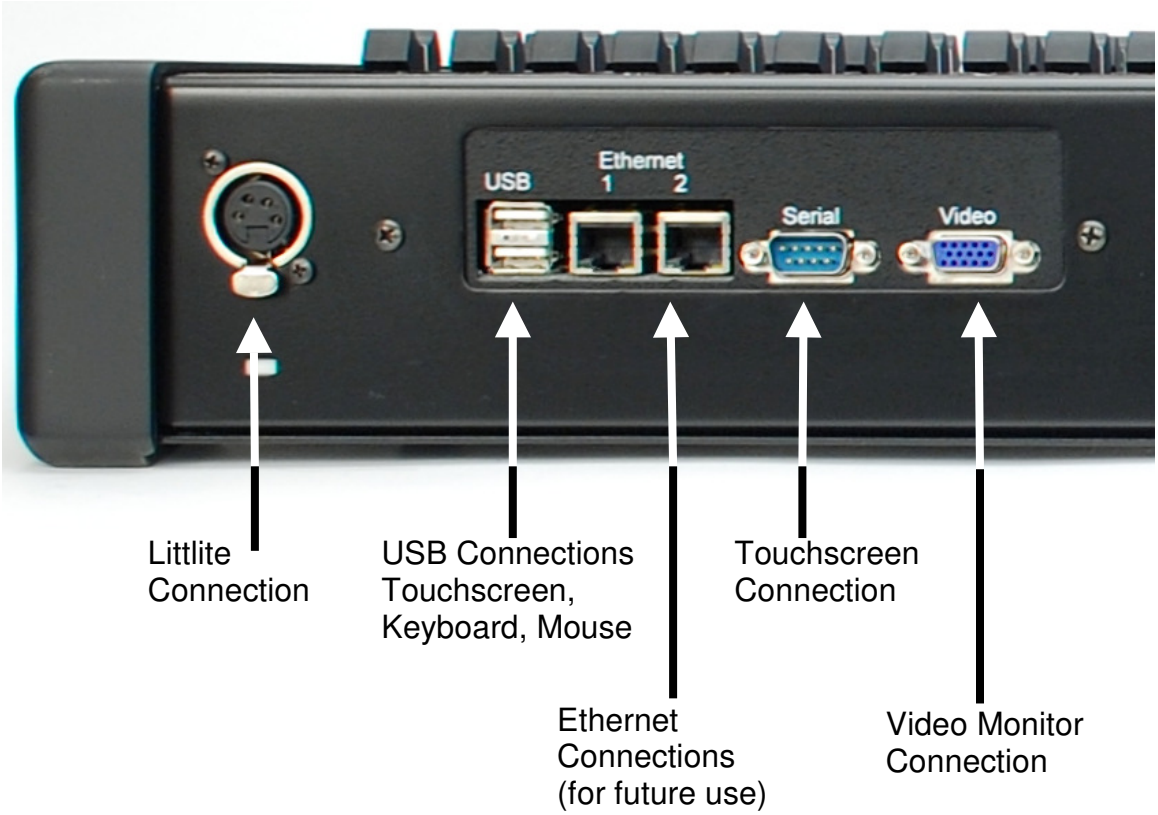


Figure 1: Back Panel Connections



2.3. Boot sequence

A Linux boot screen appears and some text display showing the boot progress. This is normal operation.

2.4. Power-off

To turn off the LPC:

1. Click on the X in the upper right corner of the screen. A dialog box appears asking 'are you sure?'
2. Confirm the shutdown dialog box by clicking or touching **Yes**.
3. Wait for the applications to shut down, and then turn off the power switch.

3. Setup

The main setup screen shows the current software versions, and contains submenus for all setup functions, (See Figure 3).
Three software components comprise the LPC system, and the revision level and release date for each of the components is shown in the main Setup screen.

3.1.1. Real Time Clock

The Real Time Clock is a way of visually checking fade cues in real time. This feature is located at the top of each screen in the LPC title bar.
Clicking on the clock face will start, pause or reset the elapsed time display.

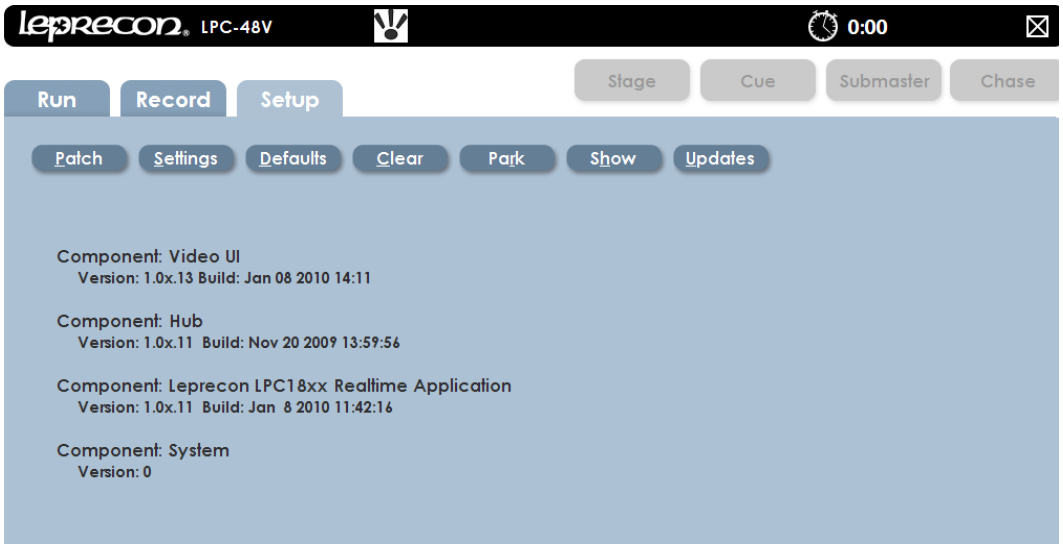


Figure 3: Setup Screen

3.1.2. On-screen Keypad

The **On-screen Keypad** allows quick access for entering numeric values in any given field. It is an alternative to using the keypad on the console (See Figures 4 and 5). The on-screen keypad can be found next to any dialog box. This icon follows the action when a dialog box is selected and highlighted in yellow.

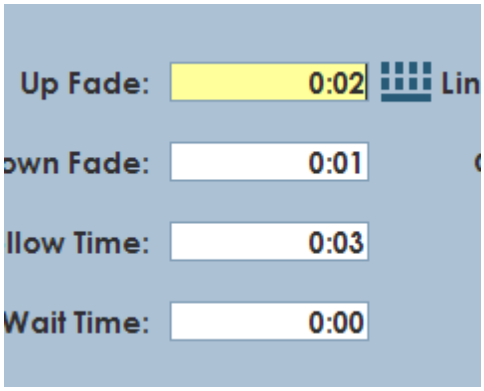


Figure 4: Keypad icon

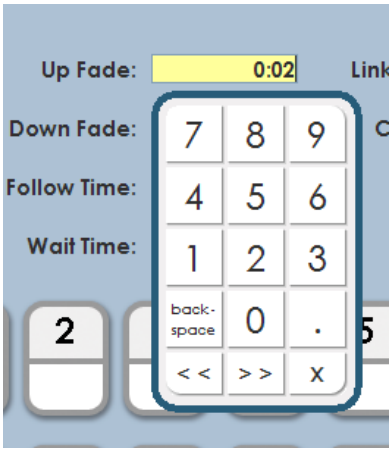


Figure 5: Opened Keypad

Example of use*:*

If the user wants to set the Cue Stack fade-up time value.

- Select the **Keypad icon**
- Select numeric value.
- Close keypad select the **X** located at the lower right corner.

The **Backspace** button will erase the entered numeric values.

3.2. Patch

Patch is a way to reassign the order of desk channels to DMX dimmer channels. The default patch is set 1 to 1, which is to say desk channels 1 through 512 are assigned to DMX dimmer channels 1 through 512. Dimmer to board channel assignments are set in the patch screen. The LPC is set up to store numerous custom patches. Each patch will have a unique name that is given by you, or the patch will be assigned an ID default number.

All patches will be listed in the patch screen (See Figure 6). Only one patch can be used at a time. Applying a patch makes it active, and the dimmer to channel assignment changes at the time it is applied. Patches can be viewed by desk **Channe**l or by DMX **Dimmer**.

System default patch cannot be modified, but it can be copied to a new patch.

3.2.1. Creating a Custom Patch.

1. Select the **Set up** tab; select the **Patch** tab.
2. The patch list window will open, and Default (System) (Active) is highlighted in green.
3. Select the **New** tab in the left column. A window will open with the message, "*Enter name for the new patch*".
4. The icon to the right of the dialog box is an onscreen keyboard which can be used to name the patch. If a name is not given, "Patch 01" is the default.
5. Select **Save** and the new patch will appear in the **Patch List** window, (See Figure 6).
6. Select the Newly named patch from the list; it should now be highlighted in green.
7. To make the patch Active, select the **Apply** tab located on the left column. **Active** will appear next to the name in the Patch list.

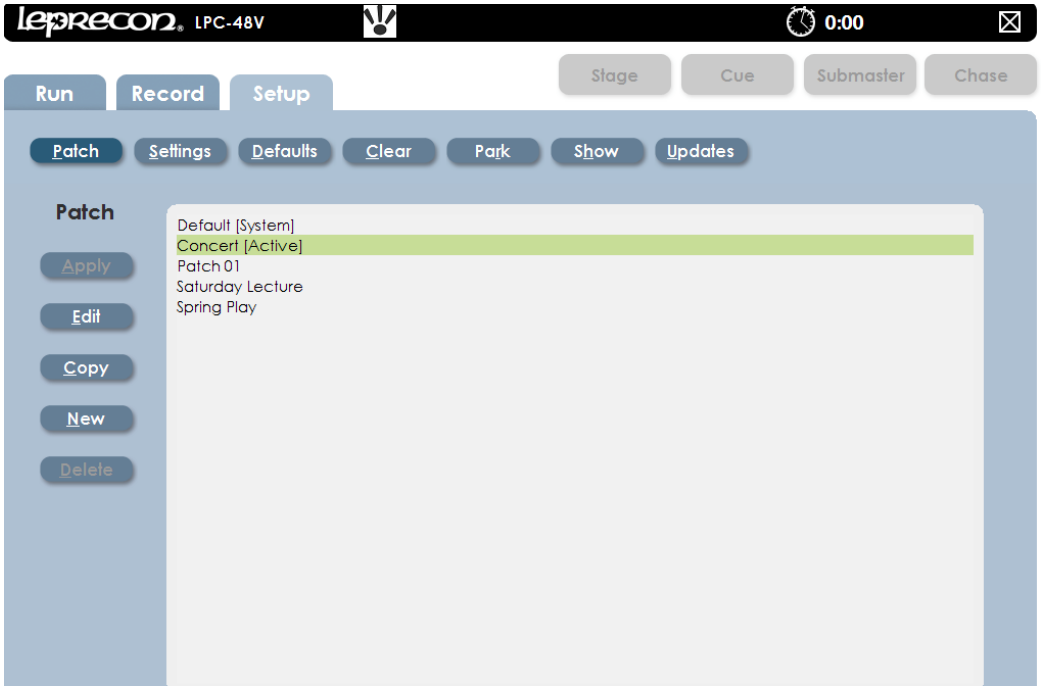


Figure 6: Patch List Screen

3.2.2. Edit the Custom Patch

The Patch can now be edited in two ways; by Dimmer, or by Channel. The choice can be made by selecting the tabs located on the left column, (See Figure 7). In this example we will create a patch by using the channel method.

1. Select the **Edit** tab on the left column
2. Select the **Add** tab on the left column and the control window opens.
3. **By Channel** (default), select desired Console channel the dialog box.
4. Enter desired light **Level** (default is 100%).
5. Choose **DMX Line** output A or B.
6. Enter desired dimmer DMX channel number(s) by selecting the **Dim Window** which will highlight in yellow.
7. Use the command keys on console **Dim, Thru, Except, And** to enter a patch string. Use the format example: Dim 1 Thru 12 And 22 **Enter**.
8. Select **Save** and **Exit** to go back to the patch list screen.

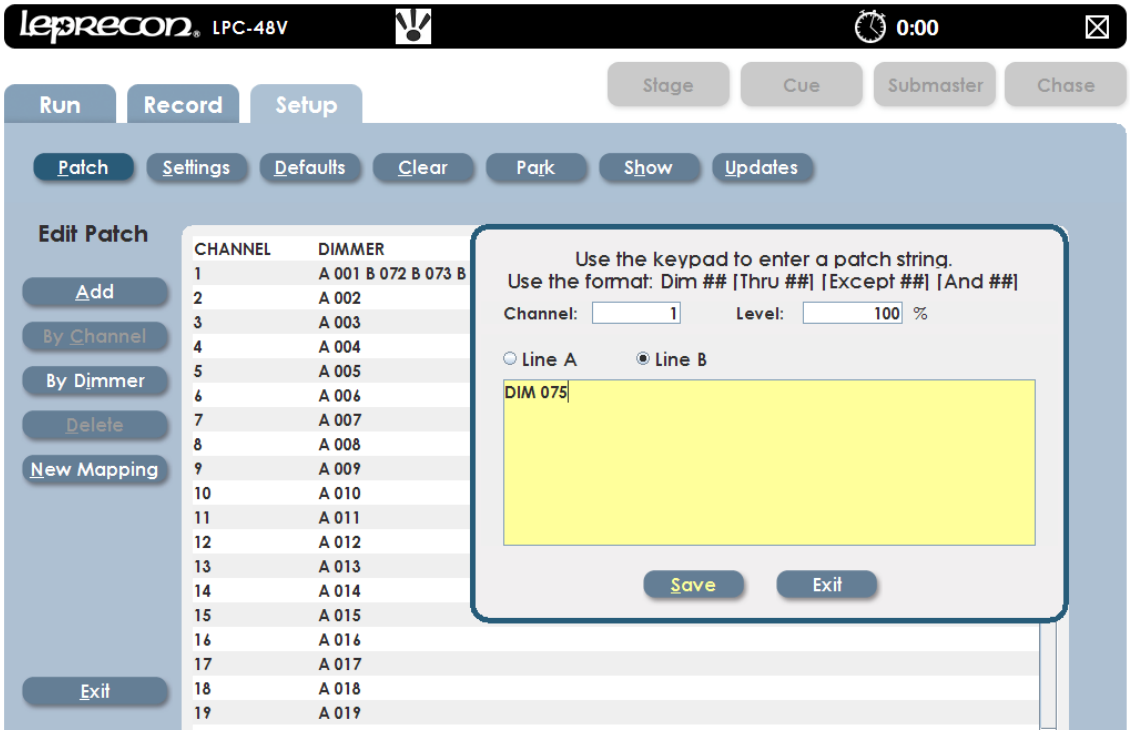


Figure 7: Patch Edit Screen

Note: Multiple dimmer channels can be patched to a single desk channel, but multiple desk channels cannot be patched to a single dimmer channel.

3.2.3. Patch by Mapping Channels

New mapping is a time saving way to patch a chain of DMX or dimmer channels to desk channels 1 to 1, but starting the patch at a desired channel and given a range (See Figure 8).

1. In the **Patch** screen, select the **Edit** tab in the left column.
2. Select the **New Mapping** tab in the left column.
3. The mapping window will appear where the patch information is entered.
4. The **Start at Channel** dialog box is where the starting desk channel is entered.
5. **Starting DMX line** is where line A or B is entered.
6. **Starting DMX Channel** dialog box is where the dimmer DMX channel

number will start.

7. The **Number of Channels to Map** dialog box is where the range of channels will be entered.
8. Select **Save** and **Exit**.

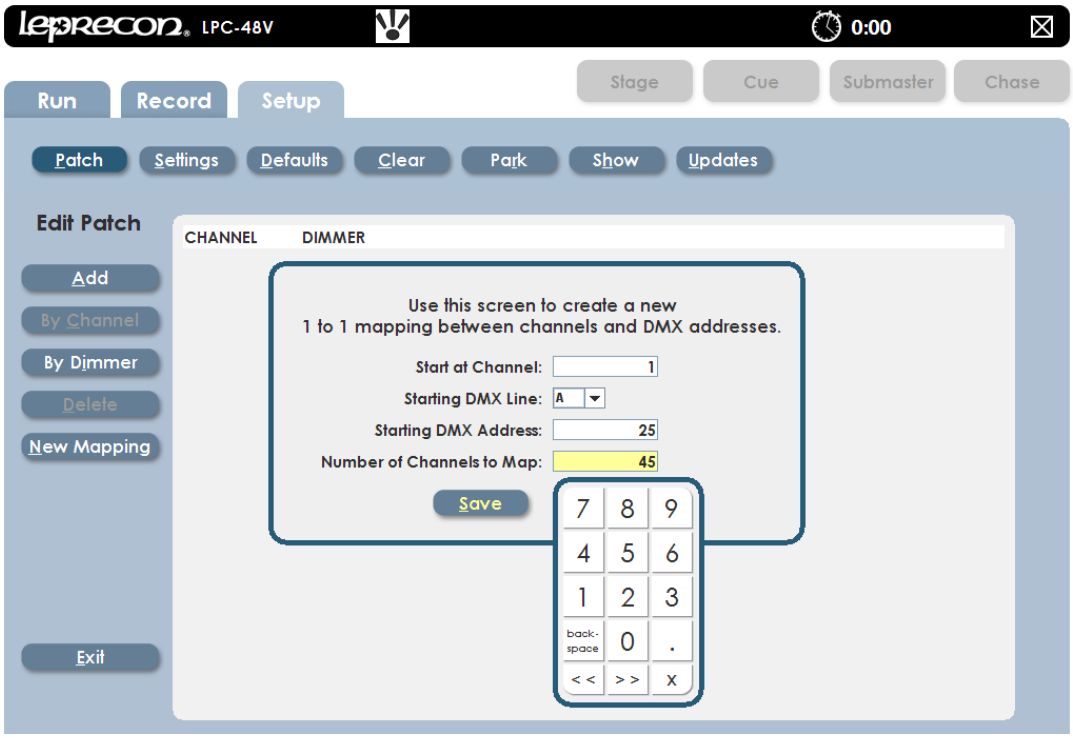


Figure 8: Patch Mapping Screen

Note: A Warning message will appear if the patched channels are outside the range.

3.3. Settings

The Settings screen is where one can change the application of the console. The manual fader operation, DMX output, Littlite® intensity, and Blackout enable can be set in this screen, (See Figure 9).

3.3.1. Manual Mode

This selects 2 scene preset, or wide mode for the manual faders, (See Figure 9).

- **Wide Mode** – allows the upper and lower bank faders to be a single scene.
- **Two Scene Preset Mode** – mixes between the upper and lower bank of

faders channels using the manual fader as control.

Note: This change can disrupt stage output, so is set as a configuration item.

3.3.2. DMX Mode

The DMX Mode allows the user to have a choice in how the DMX channels are output. The console has the capability to output a total of 1024 channels on DMX line A and line B. An alternative choice would be to send a total of 512 DMX channels on 2 separate outputs; DMX line A will mirror line B.

The DMX Mode has two settings

- **Normal** (A & B lines) – This mode allows the user to control a total of 1024 DMX channels on two lines.
- **Mirrored** (A mirrored to B) – This mode allows the user to control 512 DMX channels; Line B will mirror the output of Line A.

3.3.3. Littlite® Intensity

This control sets the light level of the gooseneck work lamps. Use the on screen keypad to set the level (See Figure 9).

3.3.4. Blackout Enable / Disable

When Blackout **Enabled** option is selected the Black Out button on the console, which is located above the Grandmaster fader, will set all desk channels to Zero when pushed. Alternatively when the Black Out is **Disabled** option is set, the Black Out button will not activate when pushed (See Figure 9).

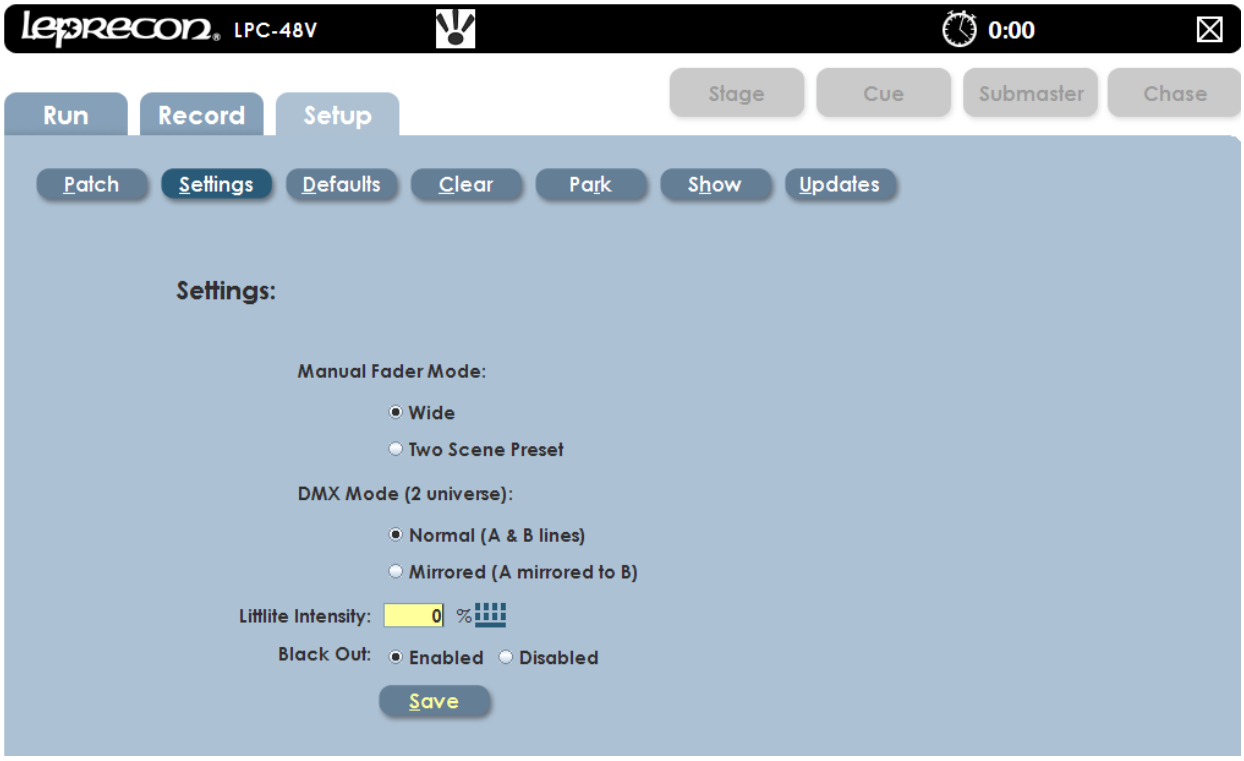


Figure 9: Settings Screen

3.3.5. Littlite® Intensity Shortcut

The **Littlite®** intensity setting shortcut is located on the LPC title bar at the top of every screen, and is represented by the icon in Figure 10. When the screen is open the user can move the slider to the desired light level (See Figure 11).

Figure 10: Littlite® Icon

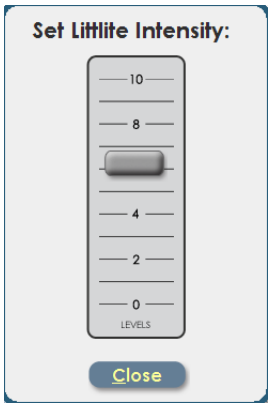


Figure 11: Intensity Setting

3.4. Defaults

The Defaults area is used to set standard operating times for the LPC.

This includes default times for Cue stacks, Submasters, Quicklooks, and Chase properties. These defaults are applied to newly created items, (See Figure 12).

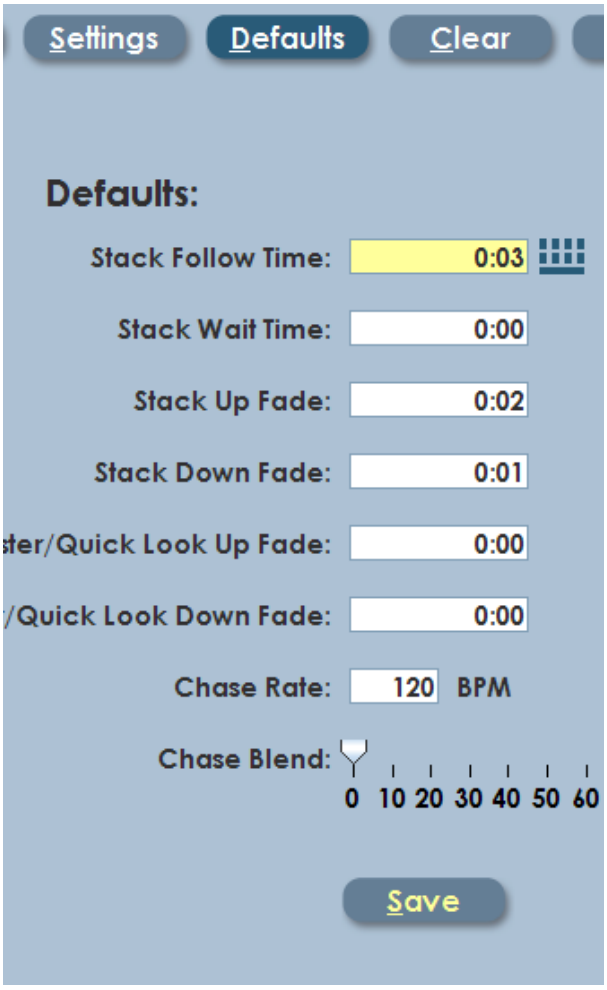


Figure 12: Default Settings

3.5. Clear

Clear functions are used to erase selected areas or the entire board memory, (See Figure 13).

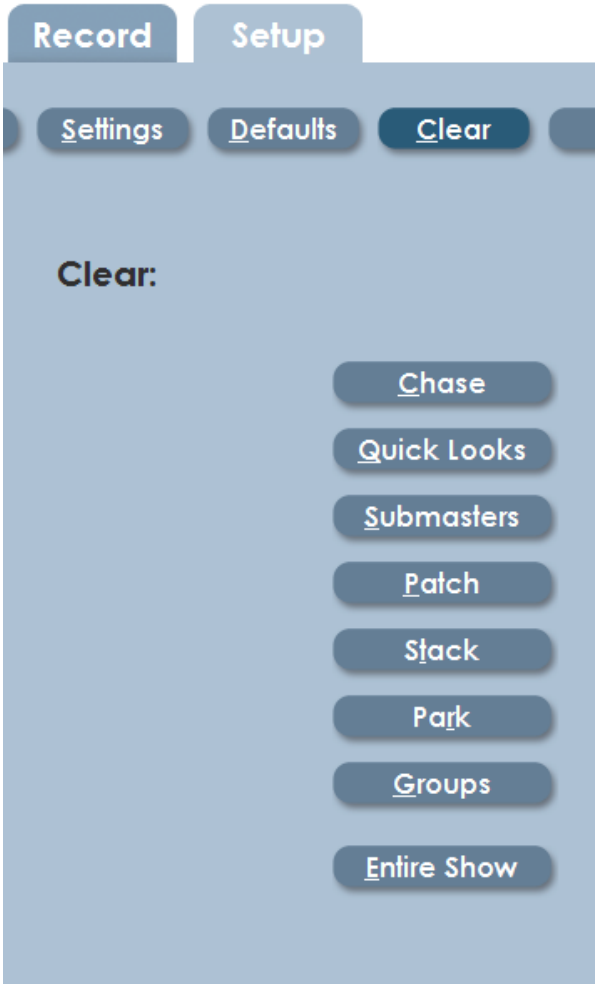


Figure 13: Clear Settings

3.6. Park

Board channels or specific DMX dimmer circuits can be set to a specific value for the duration of a show or programming session. This is called **Parking**. This can be useful to turn on work lights or turn off an improperly focused fixture.

Parked channels levels are not included in Cues or Submasters that are recorded while the channels are on.

The interface for Park is shown in figure 14.

Select the **Park** tab and the Park screen will appear.

- To park a desk channel use the left dialog box.
- To park a DMX or dimmer channel use the right dialog box

1. Select the desired dialog box and the on-screen keypad will appear.
2. Enter the **Channel** number and **Level**
3. The parked channel number and level will appear in a list to the right of the dialog box.
4. To Un-Park a channel, highlight a desk channel or dimmer channel from the list and select **Delete**.

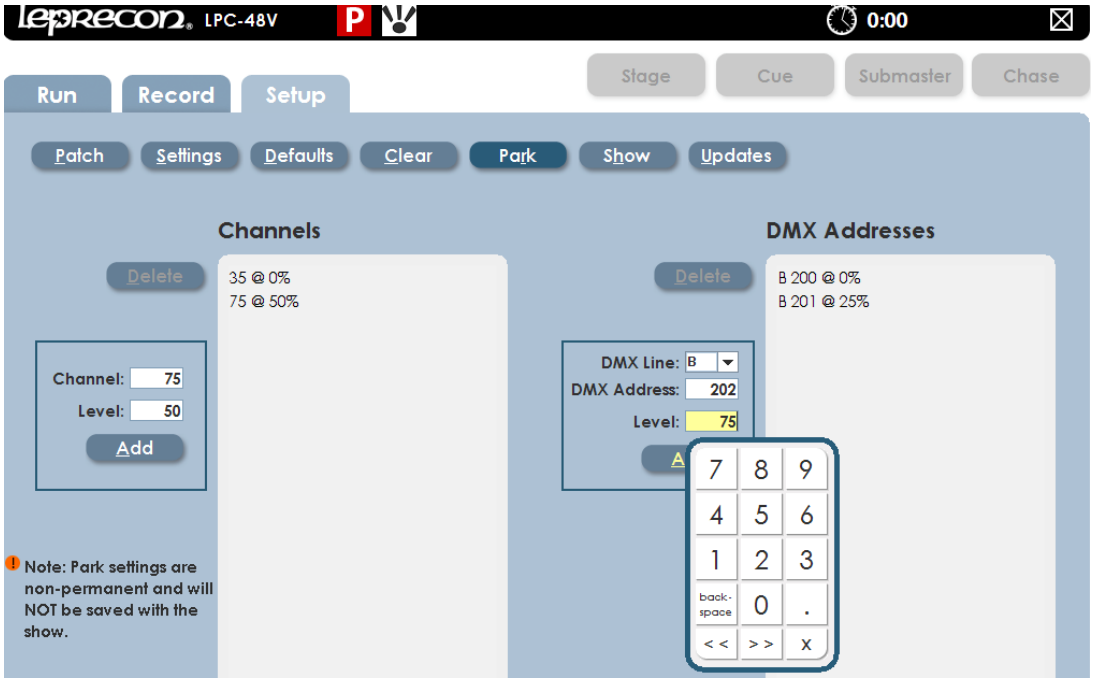


Figure 14: Park Screen

If any channels or dimmers are Parked, a red indicator with the letter 'P' is shown on the title bar at the top of the screen.

3.7. Show

Backing up and restoring show data can be achieved using an external flash device seen in figure 15. The access to this function is in the **Show** screen, (See Figure 16).

Figure 15: Front USB Location

Shows can be Loaded and Saved in the following example.

1. In the **Setup** section, select **Show.**
2. Insert the USB storage devise**.**
3. Select **Load Show** and the window will open with the information from your USB storage devise.
4. Select the desired show and select **Open.** The show will take a moment to load.
5. The show name can be entered or edited with the **On Screen keyboard**.

Save Show works in a similar way as loading a show.

1. In the **Setup** section, select **Show.**
2. Insert USB storage devise**.**
3. Select **Save Show** and the Save Show window will open.
4. Select the desired file location for the Show.
5. Using the **On Screen Keyboard** name the show.
6. Select **Save.**

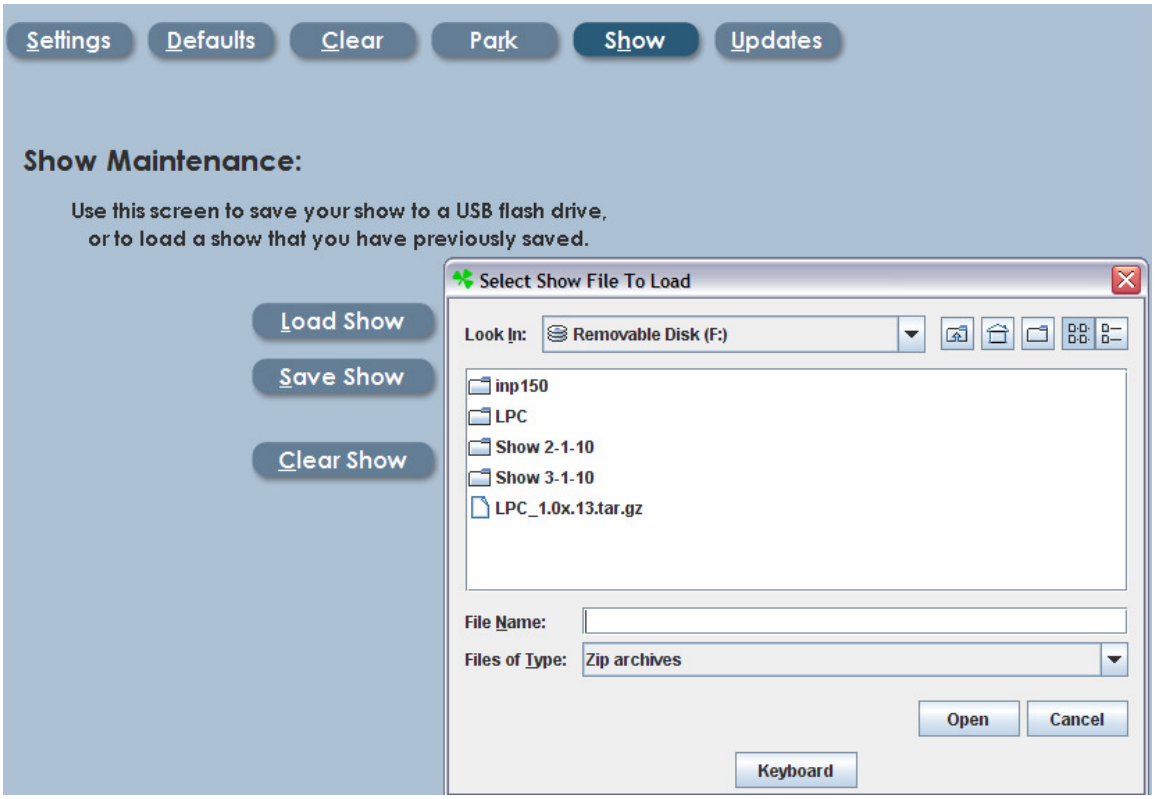


Figure 16: Load Show Screen

3.8. Updates

Software updates are installed in LPC in the Updates screen, (See figure 17). Files are loaded from flash memory to LPC program storage. Updates may contain new features and performance enhancements.

Future software updates may be obtained from the Leprecon website or e-mailed directly.

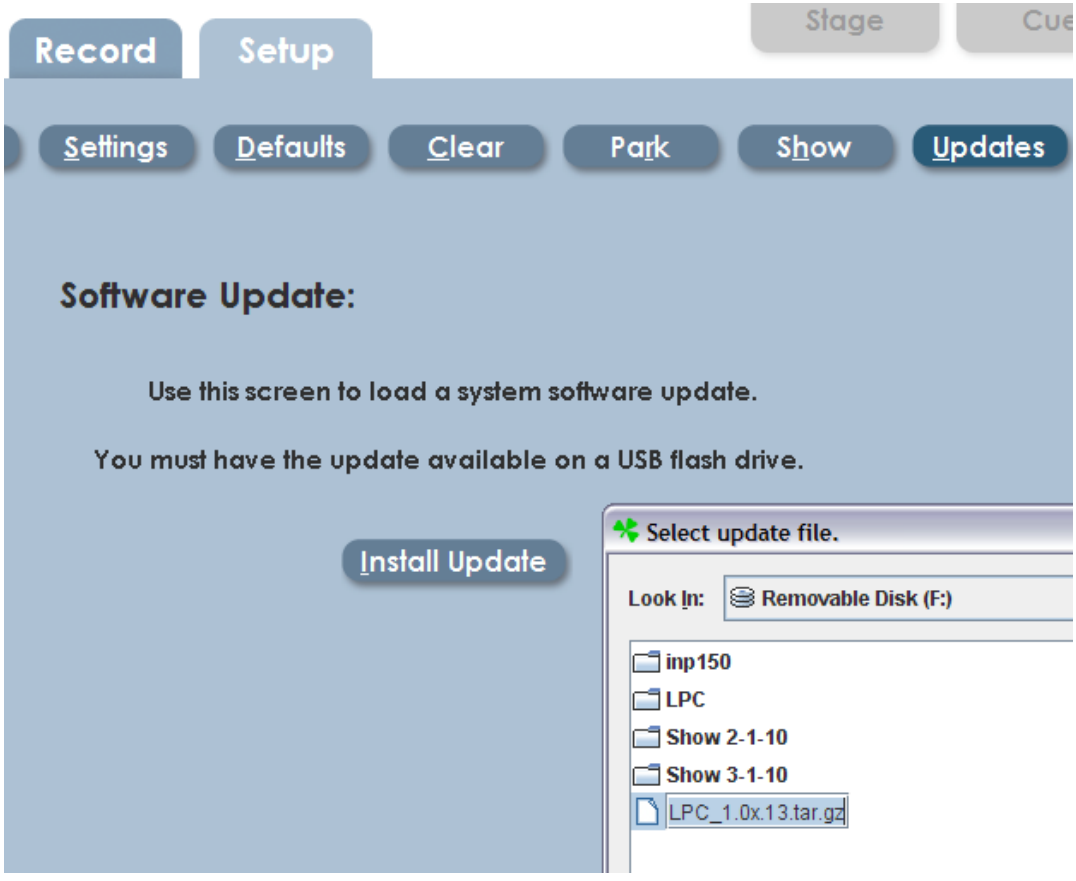


Figure 17: Software Update Screen

4. Stage View - Manual Channels

The LPC allows manual channel control using front panel faders. Channels beyond the fader range are set using the video interface or keypad, and are referred to as **Virtual Channels**.

The **Manual Fader** on the left side of the fader banks controls the output of the desk channel faders. Getting output from the manual scene requires the Grand Master and the Manual fader to be up. LPC must be in Run Mode to see Stage view. Submaster Run and Cue Run controls and features are similar.

4.1. Using Channel Faders

Operation of the desk channel faders are chosen in the Settings screen, (see section 3.3.1.) The desired use of the desk faders is selected by either **Wide Mode** or **Two Scene Preset Mode**. The **Fader Mode** key, located above the manual fader, is a secondary control of the operation, (See Figure 18).

The two banks of faders can be used in the following ways:

Wide Mode

- Fader Mode – **Manual:** all desk channel faders are used as a single scene. The manual fader has control over the desk and virtual channel output.
- Fader Mode – **Subs:** the lower bank faders are Submasters only, and the manual fader does not affect their output. The upper bank and virtual channel outputs are controlled by the manual fader.

Two Scene Preset Mode

- Fader Mode – **Manual:** upper and lower bank of desk channel faders are set as two separate scenes. The manual fader is used to crossfade between the two scenes, and the virtual channels are not affected.

- Fader Mode – **Subs:** the bottom faders are Submasters only and the manual fader does not affect their output. The manual fader has control over the virtual
  channels.

Figure 18: Fader Mode

4.2. Bump buttons

LPC bump buttons are used to flash a channel or Submaster to full level. The bump buttons are under their associated fader channel. The four modes of bump operation are chosen with the **Bump** key, which is located above the blackout key, (See Figure 19).

- **Off** - bumps are disabled.
- **Add** - pressing a bump button brings up a channel or Submaster without affecting other channels.
- **Solo** - pressing a bump button brings up a single channel or sub, and blacks

out all other channels.

- **Latch** - pressing and releasing a bump turns on a channel or sub. Pressing the bump a second time turns off the channel or sub.

When a Submaster is turned on with Latch mode, it will fade up and down using Submaster fade times.

4.3. Using the Keypad

LPC includes a numeric keypad and function keys to set channel levels.

Pressing the **Channel** key brings up the dialog for selecting and setting channel levels.

Example: **Channel** xx **Thru** xx at **Level** xx **Enter.**

With channels selected, use the level slider to tweak levels.

Repeating the channel selection process allows a new group of channels to be selected, (See Figure 19).

Figure 19: Keypad

4.4. Setting Channels with Video Interface

If a touch screen is connected, touch a channel selection to capture it. The channel number and level field will turn green. Use the **Level slider** located left of the channel markers to set the channel levels, (see figure 20). Touching or clicking channels will select and de-select them.

If there is not a touch screen installed, selecting elements with the mouse has the same effect.

The commands at the bottom of the screen are used to control channel operation, (See Figure 20).

- Touching the **Channel** command opens a dialog box where the user can select channels and levels using the keypad.

- A group of channels can be set by touching the first channel number, select the **Thru** command at the bottom of the screen, and the last channel number. A string of channel numbers should turn green. Touch the Level Slider and move to set levels.

- The **Release** command deselects channels, and the green highlight disappears. New channels can now be selected.

- Pressing the **Clear All** command sets all channels to zero.

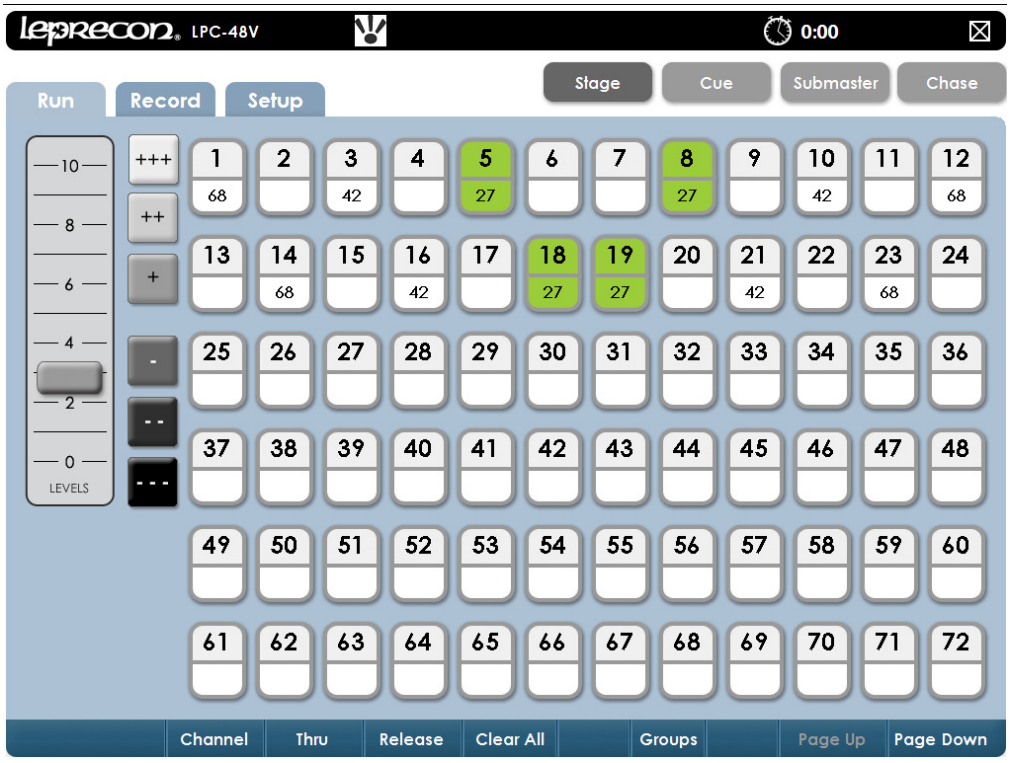
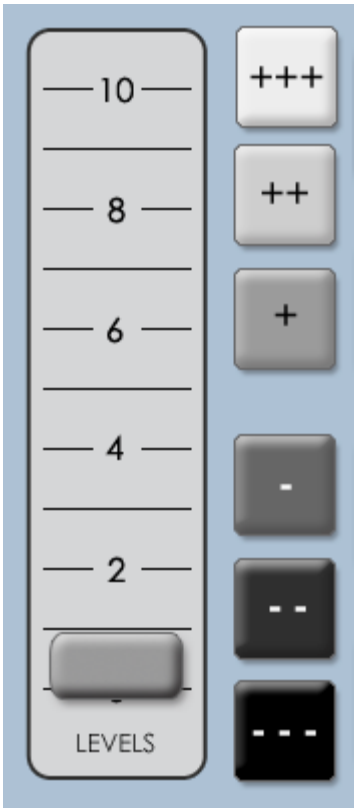


Figure 20: Stage Run Screen

4.5. Incremental Levels

The 6 **Incremental selectors** are located to the right of the level selector and are represented by the icons in figure 21. The purpose of the Increment icons is a time saving way to change the overall light level of a look while keeping the individual channel levels in proportion. So instead of changing the level of individual channels, the user can select one of the Incremental icons which will affect the scene.



Increase by 10

Increase by 5

Increase by 1

Decrease by 1

Decrease by 5

Decrease by 10

Figure 21: Incremental Levels

4.6. Groups

Any set of selected channels can be saved as a group. This provides a shortcut for using the same channels again later for Cue or Submaster recording, (See Figure 22). Channels can be selected and de-selected from the group screen as well.

1. In any Run or Record screen, press the **Group** key located on the front panel, or click on the word **Group** located at the bottom of the screen.
2. Once channels are selected, touch **Save As…** to create the new group.
3. Give the group a convenient name, and it can be re-used for future recording.

If there are channels selected when the Group button is pressed, that selection will be carried into the Group creation screen.

Figure 22: Group Screen

5. Submasters

5.1. Submaster Properties

The Submaster record screen is used to record channel levels, as well as all other properties.

- **Page** - selects the current Submaster page. The current page can also be set at any time using the front panel **Page** key.
- **Sub** - this control selects the Submaster to be recorded.
- **Title** - a name can be set for the Submaster. This title will be shown in the Submaster Run screen.
- **Upfade** and **Downfade** - sets up and down fade time for a Submaster. Fade times only apply to bump toggle mode.
- **Linked Chase** - each Submaster can have a chase linked to it. Bringing up a Submaster will then start the selected chase.
- **Chase Rate** - sets the speed of the linked chase.

5.1.1. Moving about the screen

Left and right arrow keys are used to 'tab' from field to field.
Adjust the levels within a field with up and down arrows, or use the keypad to enter a new value.

5.2. Recording Submasters

Selecting the **Record** and **Submaster** tabs bring up the Submaster Record screen.
The screen shows Submaster properties at the top of the screen, and channel levels at the bottom (See Figure 23).
Channel levels shown are the actual LPC output, so previously recorded

Submasters can be used to build new looks.

5.2.1. Saving Submasters

1. Set channel levels for Submasters using manual faders, video interface, or channel selection keys.
2. The stage output will show levels set for Submaster recording. Use the incremental levels to fine tune the look.
3. Pressing the **Enter** key on keypad or select **Save** tab will store the Submaster data. A message will be displayed, "Scene Saved: Page ## Sub ##," which confirms the Submaster was saved.
    - The Submaster number will automatically advance so that a sequence of subs can be recorded.
    - If a Submaster already contains data, LPC offers the options of replacing the current data, inserting a new Submaster, or canceling the operation.
    - Inserting a new Submaster will shuffle all higher numbered Submasters up to make room for the inserted cue. If there is data on Submaster 24, that scene will be lost.

Predefined groups can be used also to select channels for recording. Press the **Group** key on the front panel to show previously created groups, (see Groups in section 4.6). Click or touch on the group name to select, then click or touch 'OK' to return to the record screen.

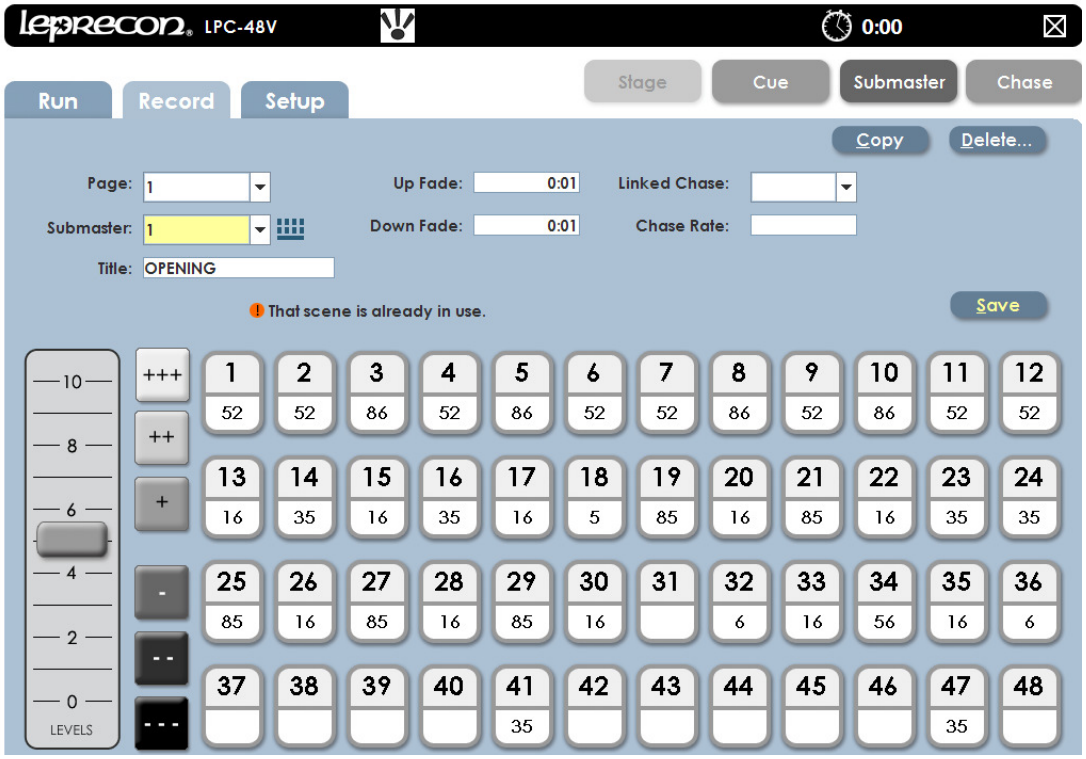


Figure 23: Submaster Record Screen

5.3. Submaster Playback

The Submaster Run screen shows the status of all LPC Submasters. The display at the top includes Submaster name, current level, and page status.

- Stage view channel levels are shown below the Submaster status display. **Next** and **Previous** scroll controls allow viewing the complete set of 24 Submasters.
- The active Submaster page can be changed from the Run screen.
- Submaster Run screen allows access to manual channels as well.
- Use the bottom bank of faders on the LPC to control the corresponding Submaster playbacks.

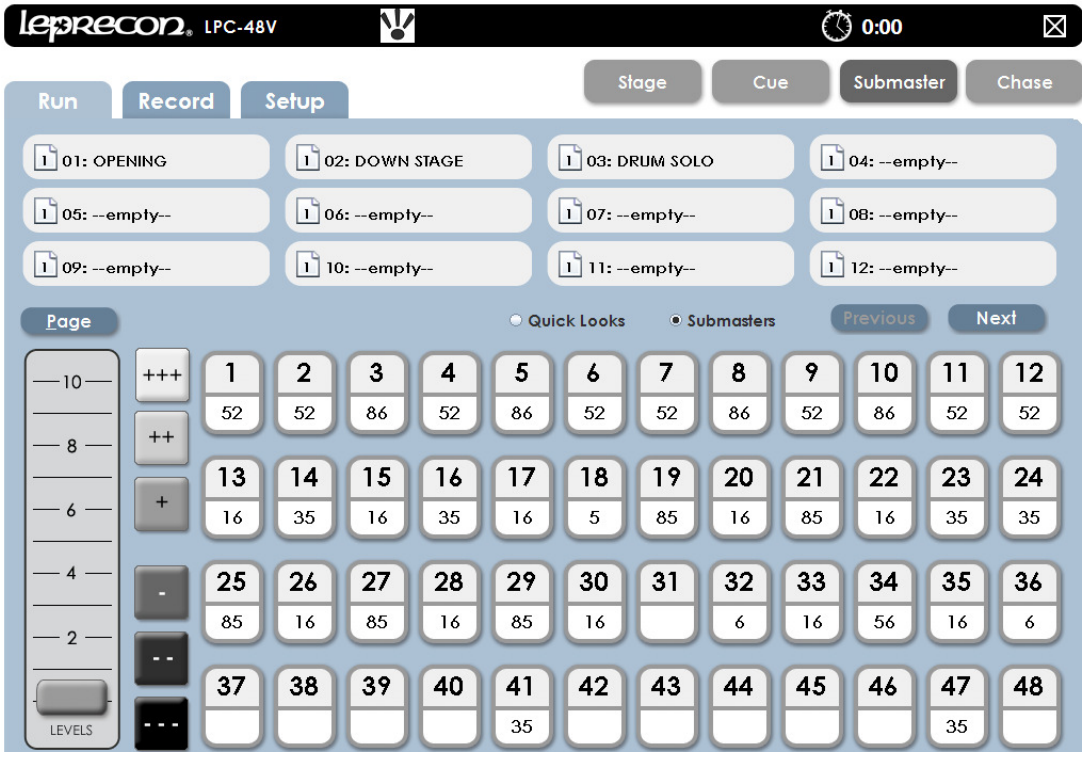


Figure 27: Submaster Run Screen

5.4. Submaster Preview

LPC uses a Preview function to check and change subs that have already been

recorded. The background color changes to show that the channel display no longer shows Stage view.

Preview also allows blind changes to Submasters. Previewing and changing an active Submaster will show the changes in the board output. Changing a Submaster that is down will be done blind, with no changes seen on the stage. From the Submaster Run screen, click or touch the **Preview** control in the lower corner of the screen.

- The background changes color, and the channel levels shown are the values of the Submaster, not stage levels.
- In Preview mode, all the channel selection methods (faders, touch screen, channel dialog) can be used to change Submaster channel levels.
- Change the channels individually or use the incremental level buttons.
- Clicking **Save** will update the Submaster channel values.
- Another Submaster can be previewed, or click **Exit** to return to Submaster Run screen.

Figure 28: Submaster Preview Screen

5.5. Quick Looks

Six special scenes, called **Quick Looks**, give fast access to specific scenes. Quick Looks are special Submasters, with no page location (See Figure 24). Quick Looks are always available and are ideal for giving lighting control for specific scenes to untrained operators. Selecting Quick Looks gives access to the six memories.

To record Quick Looks:

1. In the Submaster Record screen, click the **Page** drop down menu. Above Page 1 are Quick Looks.
2. Select desired Quick Look location: (1- 6)
3. Set channel data and fade times.
4. Select **Save**

To playback a Quick Look simply press one of the pre-recorded buttons. Pressing it again will turn it off.

Figure 24: Quick Looks Buttons

Quick Look channels ARE NOT included when subs, cues or chases are recorded. Also, Quick Looks are independent of the Master level, but are controlled by the Blackout switch.

5.6. Copy Scene

Copy Scene is a way to move a recorded scene to a different location. The LPC can change the order of a list or move a recorded scene to a different operation mode such as Cue, Submaster, or Chase. The scene can be copied in Record or in Preview mode. The user can copy the scene with its fade time intact, or copy a scene with only the light levels; this will set the fade times to default. Copy Scene Icon can be found at the top right of the Record and **Preview** screens, (See Figure 25).

1. In the Record or Preview screen select **Copy.**
2. A window will open and a question will ask, “Where do you want to paste this scene” (See figure 26).
3. Select the lower window to open the menu; Cue, Submaster/ Quicklook, or Chase.
4. If Cue is selected.
   - Enter the desired **Cue Number** in the window.
   - **Save Copy**.
5. If Submaster/Quicklook is selected.
   - Enter the desired number in the **Page** and **Submaster** window.
   - **Save Copy**.
6. To copy Scene to a **Quicklook.**
   - Select the page window and select the drop down menu. The **Quicklook** tab will be at the top of the menu.
   - Save Copy
7. If **Chase** is selected.
   - Enter the desired number in the **Pattern** window; enter desired number in the **Step** window.
   - **Save Copy**.

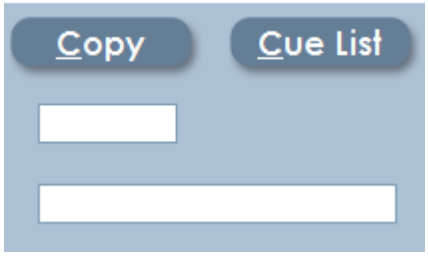


Figure 25: Copy Scene

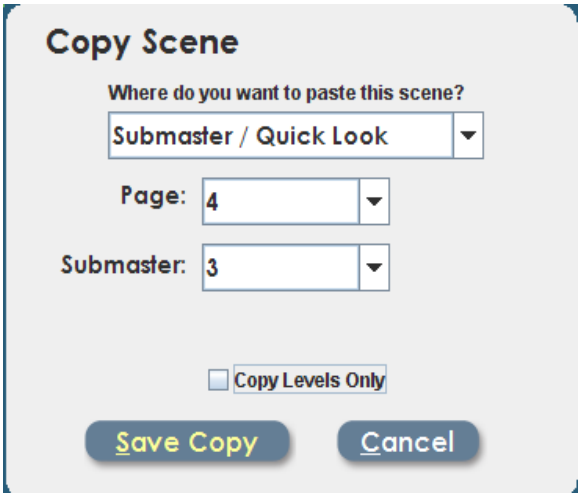


Figure 26: Copy Scene Menu

6. Cues

6.1. Cue Properties

In the Cue Record screen, properties for the cues to be recorded are shown at the top of the screen. Stage view below shows channel status, which is the data for cue recording.

Each cue has these timing properties:

- **Wait time** - Time that can be set to delay the start of the fade after pressing 'GO'
- **Follow time** - Setting Hold Time will start a cue automatically after the previous cue without another 'Go' press.
- **Up Fade** - Time for the new cue to reach 100%
- **Down Fade** - Time needed for the previous cue to completely fade out.

In addition, each cue can have a **Chase** associated, with a specific rate.
When the cue starts to fade in, the chase will also start.
Cues can be named using the **Title** field, and this name will appear in the Cue Run screen. The **Link** field can be used to set out of sequence playback.

6.2. Recording cues

LPC can save and playback up to 999 cues. Point Cues can be inserted in-between two Cues. This is good for editing a show after the Cue stack has been recorded. Example: Cue# 3, [3.5], 4. Each cue has independent up and down fade times. If desired, each cue can have associated delay and follow times. The entire Cue Stack can be turned off if LPC is used only for manual and Submaster control.

6.2.1. Saving Cues

1. Press the **Stack On** key.
2. Set channel levels for a cue using manual faders, video interface, or channel selection keys. The stage output will show levels set for the cue.
3. The up and down arrows can be used to increment and decrement time values within the fields.
4. The left and right arrow keys can be used to move from field to field on the record screen, similar to the 'tab' function on a computer.
5. Pressing the **Enter** key or select **Save** will store the Cue.
6. A message will be displayed confirming that the "Cue was saved."

The Cue number will automatically advance to set up the next step.

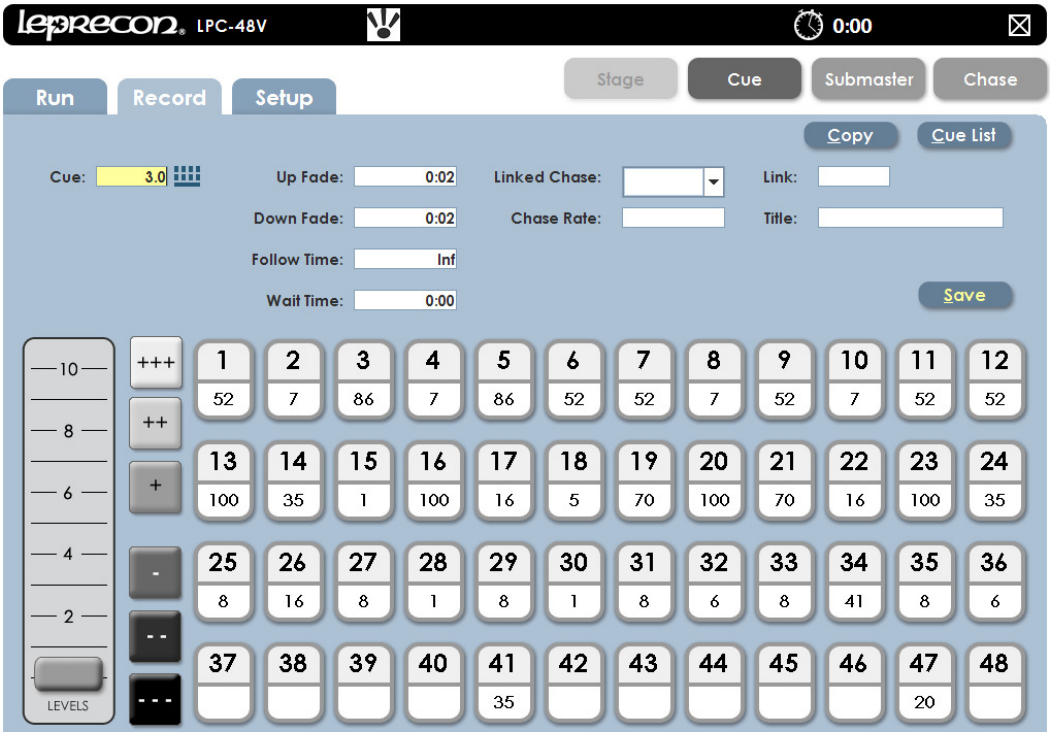


Figure 29: Cue Record Screen

6.3. Cue List

From the Cue Record screen, clicking or touching the **Cue List** control will open the Cue List screen.

This screen shows a summary of current cue timing parameters, and the cue order. The graphic at the bottom of the screen represents scene timing values. Future releases will enable timing to be changed by dragging the timelines.

Cue Order can be changed by selecting a cue. Using the up and down arrows on the left side of the screen will move a cue up or down the list, (See figure 30).

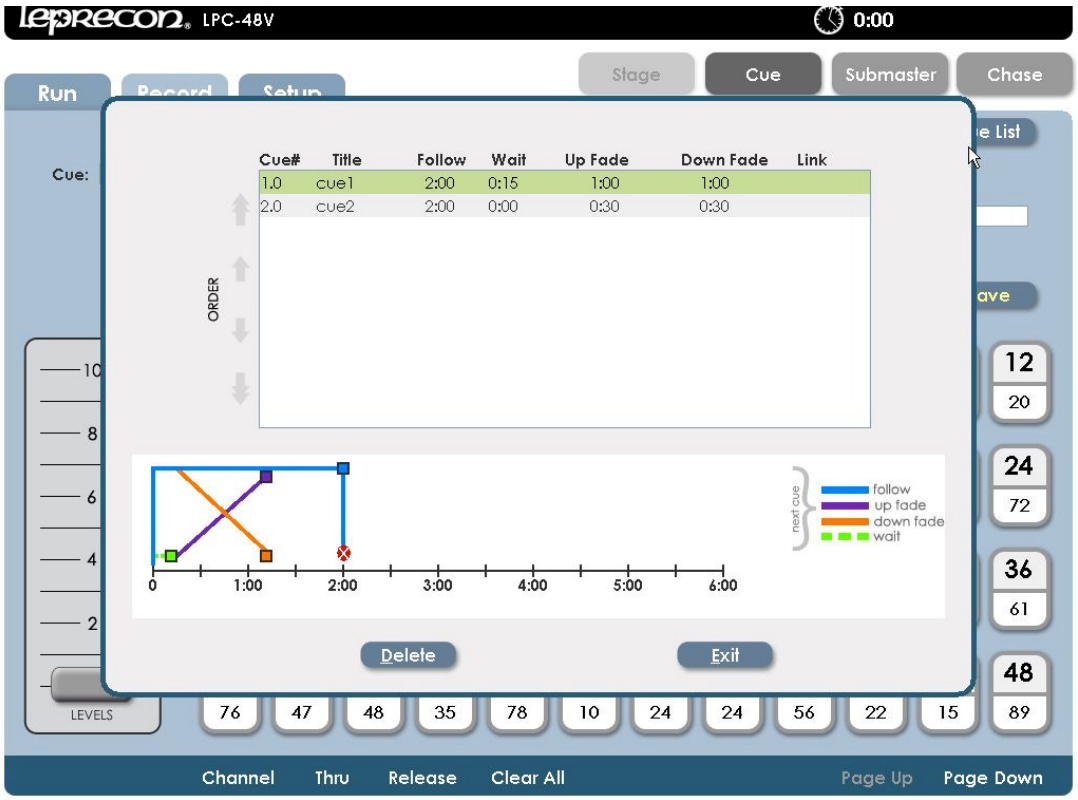


Figure 30: Cue List Screen

6.4. Cue Playback

Opening the **Cue Run** screen shows Cue status, with graphic displays for active fades. The top part of the screen shows current Cue information and the bottom

of the screen shows Stage levels. The two vertical bar graphs show the fade progress of an active fade, (See Figure 31). If there are wait times or follow times that are elapsing, that are also shown with a progress bar.
Information about the next cue in the list is shown to the right of the fade display. The cue number and name is show, as well as the fade times.

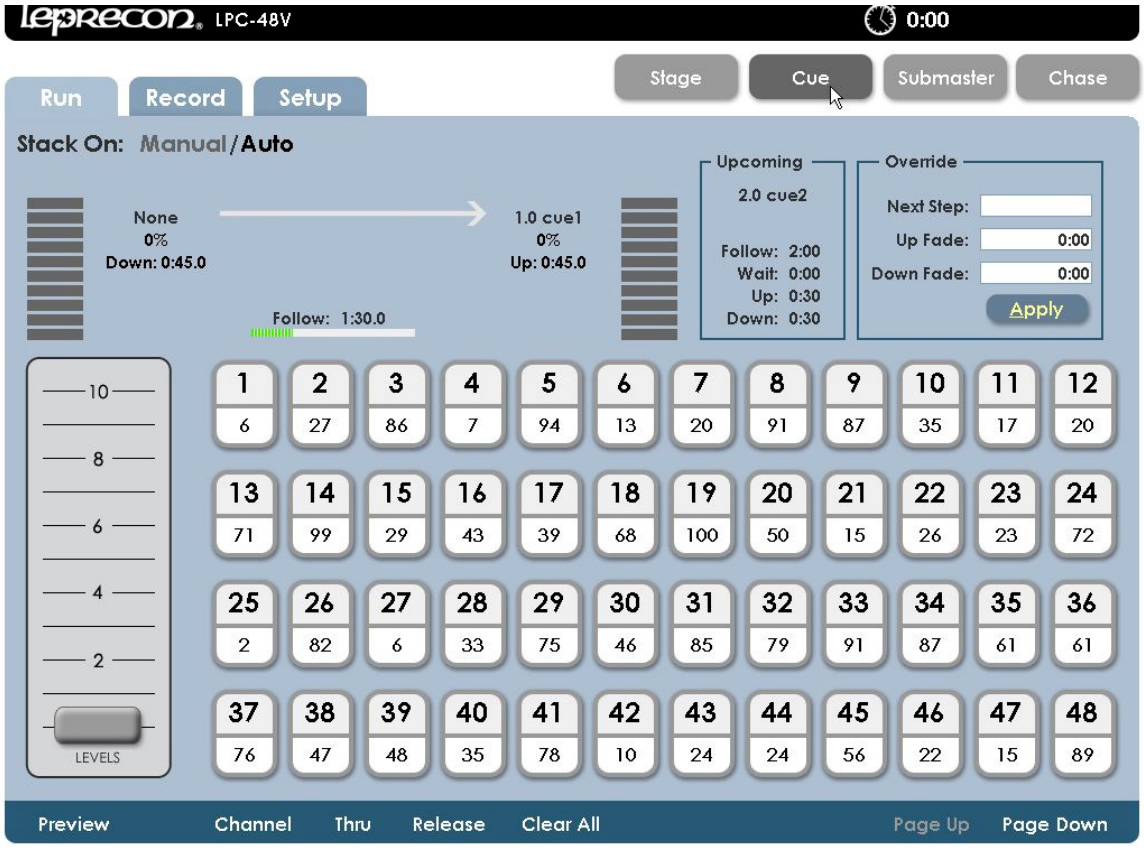


Figure 31: Cue Run Screen

6.4.1. Manual Crossfade

When the Cue Stack is first turned on, the Cue list will be in a blackout state. Moving the manual crossfader will transition from blackout to the first cue. The fade status will be shown on the bar graph displays at the top of the screen. When the cue is complete moving the manual fader back to its original position will crossfade between the next two cues. An image of the LPC's Cue control section is figure 32.

6.4.2. Cue Properties

Cue fades are handled with three front panel buttons:

- **Go** - Starts the fade to the next cue
- **Hold** - Stops the fade. Press 'Go' to resume.
- **Back** - Reverses a fade that is in progress

For automatically timed cross fades, press the **Go** button. The cues will fade up and down according to the fade times associated with the cue.

6.4.3. Taking Control with the Manual Crossfader

After cues have been played back with the **Go** button, the manual fader can be used to advance the cue stack. This requires pressing the **Hold** key to stop further timed fades.

1. Press **Hold**. An indicator will appear on screen that cue playback is on Hold.
2. Move the **Manual Crossfader** to the bottom position, then to the top to match the level of the completed fade. The Hold indicator will turn off, and the word '**Manual'** at the top of the Cue Run screen will change to a bold font.
3. Move the **Manual Crossfader** from the top position to the bottom position to change to the next cue.

If the **Hold** button is pressed in the middle of a timed fade, the manual crossfader can be used to resume the fade. The procedure is similar:

1. Move the **Manual Crossfader** to the bottom position.
2. Move the **Manual Crossfader** up from the bottom position until it matches the current fade position. The Hold indicator will turn off, and the word 'Manual' at the top of the Cue Run screen will change to a bold font.
3. Once the level is matched, the manual fader will have control. Move the **Manual Crossfader** to the top position to complete the fade.

Figure 32: Cue Control Section

6.5 Cue Override

To jump out of sequence to a different cue, use the **Override** controls, (See Figure 33).

1. Press the front panel **Cue** button this will move the cursor to the Next Step field.
2. Enter a new cue number, and set timing if it is to be different than the saved time.
3. Pressing **Apply** or **Enter** loads this new cue as the next cue to be played back when the **Go** button is pressed.
4. Verify the selected cue is in the **Upcoming** box.

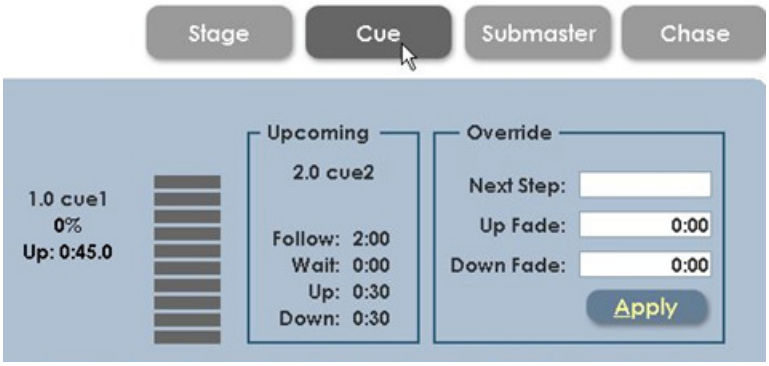


Figure 33: Cue Override Screen

6.6. Cue Preview

LPC uses a Preview function to check and change Cues that have already been recorded. When entering Preview, the background color will change to show that the channel display no longer shows Stage view.

Preview also allows blind changes to Cues. Previewing and changing an active Cue will show the changes in the board output. Changing a Cue that is down will be done blind, with no changes seen on the stage.

1. From Cue Run, click or touch the **Preview** control at the bottom of the screen.
2. All properties of the selected cue will be shown.
3. Channel levels can be adjusted using the same techniques that are used to create the Cues; faders, channel controls, or touching a channel, (See Figure 34).
4. Selecting **Save** will update the cue. **Previous** and **Next** can be used to preview other cues in the show.

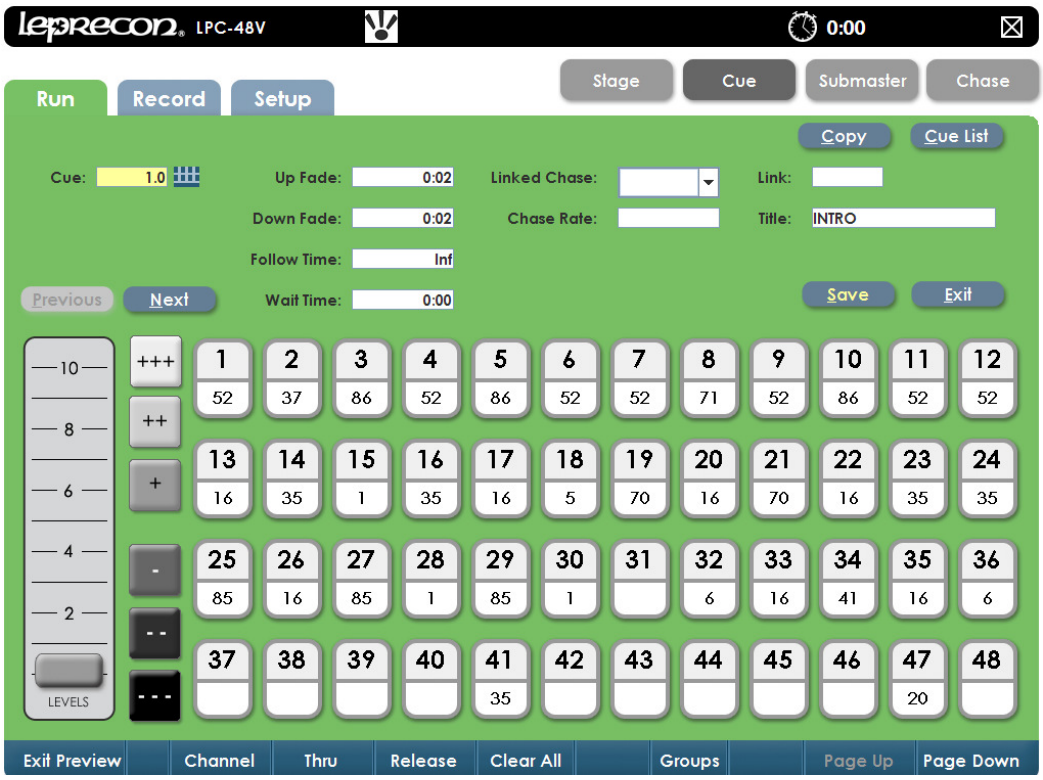


Figure 34: Cue Preview Screen

7. Chase

LPC uses Chase patterns to run sequences. Chases can be linked to Cues or Submasters, or selected and controlled from a front panel fader.
The first four chases are permanent system chases, and cannot be altered.
There are a total of sixteen programmable chase patterns available.

7.1. Chase properties

Each LPC chase has the following properties:

- **Pattern** - specified which chase is being recorded.
- **Step** - shows the last step saved
- **Rate** - the speed of the chase, shown in Beats Per Minute (BPM)
- **Loop Count** – Setting a value for Loop Count will stop the chase after a specific number of cycles.
- **Blend** - Chases can be set to snap from step to step, or fade from one step to the next. Setting blend to zero sets the chase to snap, and a blend value of 100% will produce a fluid chase that is constantly fading from one step to the next.
- **Title** – A name given to a specific Chase pattern.

7.2. Recording Chases

Select Record Chase to see the options for building a new chase. Data relating to the specific chase is shown at the top of the screen, and channel data is shown below, (See Figure 35).

Patterns 1 - 4 are permanent and the steps cannot be changed.

1. In Record mode select the **Pattern** number from the menu.

2. Select the **Step**; the dialog box should state “New Step”.
3. Set desired channel **Level, Rate**, and **Blend.**
4. Add a **Title** using the on screen keyboard if desired.
5. Select **Save**, the message, “*Chase Step saved. Pattern: # and Step: # will display for 5 seconds.*

The **Delete…** control is used to remove steps from a chase pattern.

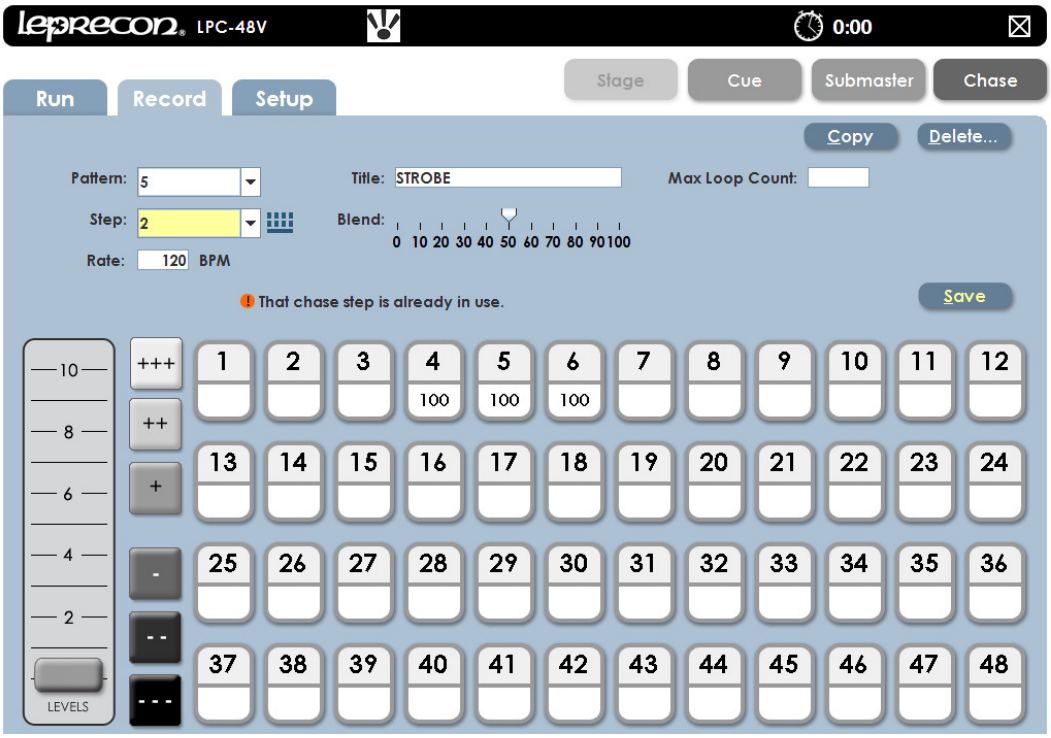


Figure 35: Chase Record Screen

7.3. Chase Playback

If chases are associated with a Cue or Submaster, they will automatically start when the cue or Submaster is used. Fading out the cue, or bringing down the Submaster fader will stop the chase.

Chases can also be run from the front panel. The Chase fader, tap button, and pattern button are used to control any of the chase patterns.

- Pressing **Pattern** will bring up a screen for picking a specific chase.

- Bringing up the **Chase fader** will fade up that selected chase.
- The **Tap** button is used to set the rate for an active chase.

7.3.1 Chase Override

The Chase Rate can be changed while in Run Mode. Select **Set Chase** and the Chase Pattern's rate can be edited (See Figure 36).

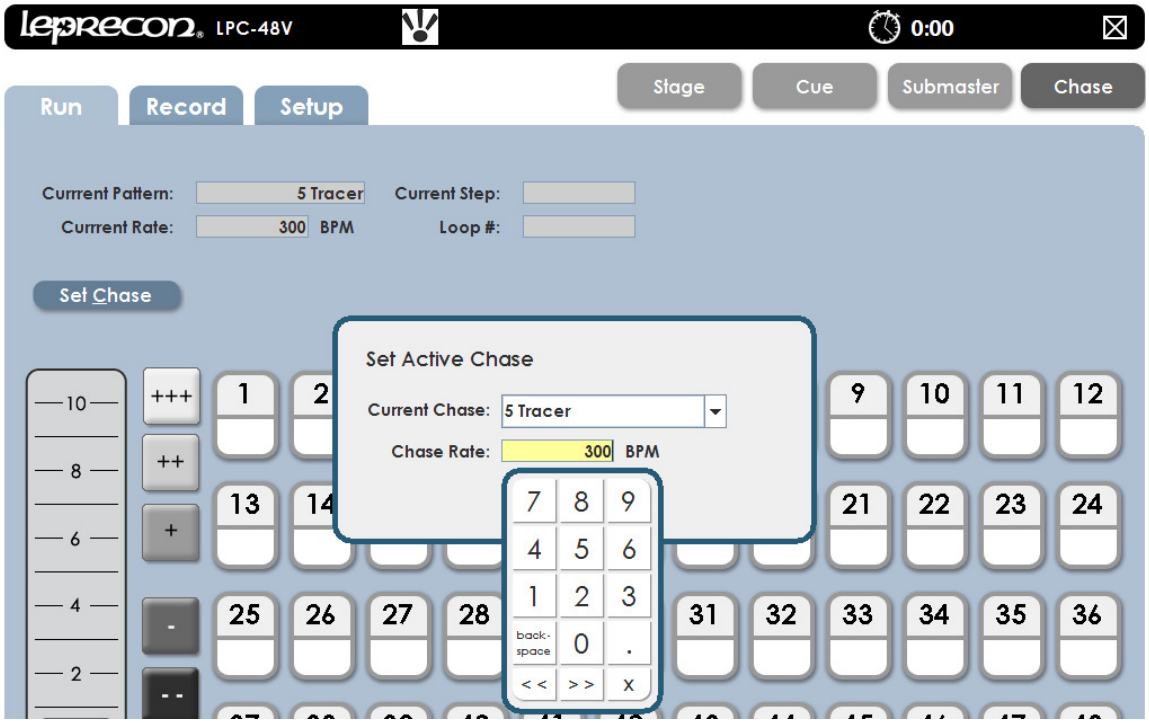


Figure 36: Chase Rate Override Screen

7.4. Chase Preview

In Preview a recorded chase pattern can be checked, and each step edited. The screen's background color changes to show that the channel display no longer shows Stage view, (See Figure 37.).

1. From the Chase Run screen, click or touch the **Preview** control in the lower corner of the screen.
2. In Preview mode, all the channel selection methods (faders, touch screen,

channel dialog) can be used to change step channel levels.

3. The **Blend** of a chase can be changed and will affect the current output.
4. Clicking **Save** will update the pattern step values.
6. **Previous** and **Next** controls will allow more steps to be previewed.

7. Click or touch **Exit** to leave the preview mode and return to Chase Run.

Figure 37: Chase Preview Screen

8. Wireless DMX option

8.1. Wireless DMX Properties

LPC models are available with optional wireless DMX capability, using W-DMX compatible format. The LPC supports 2 DMX universes, however, only Universe A will be transmitted via Wireless DMX.

The wireless transmitter has a simple interface with one LED and one momentary function switch, (See Figure 37).

The LED shows the current state of the wireless DMX link:

- ON – Normal DMX link operation
- Fast blink – Linking all available receivers
- Slow blink – Unlinking all receivers
-

To set up a Wireless DMX System:

1. Power on only the receiver units to be used with the LPC DMX universe - ensure that they are not linked with any other transmitter (Receiver LINK indicators should be OFF).

2. On the transmitter unit, press and release the FUNCTION switch. The transmitter will scan for all unlinked receivers for a period of ten seconds. The LINK indicator will flash rapidly.

If successful, each receiver's LINK indicator will go ON. If any fail, check that the receiver is in range and repeat procedure.

To unlink all receivers from a DMX universe

- On the LPC back panel, press and hold the **Function** button until the **Link** LED begins flashing, (See Figure 38).
- All receivers linked to that DMX universe will be unlinked.

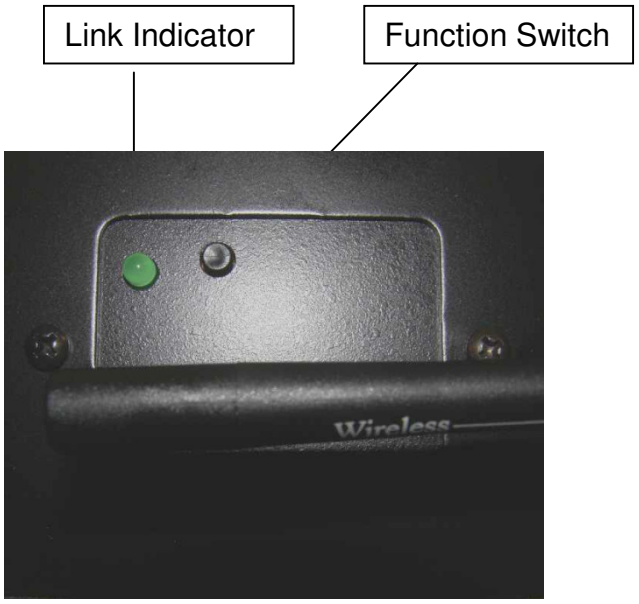


Figure 38: Wireless DMX

Support and Contact Information

The latest product information is available from our website:

www.Leprecon.com

We can also be reached at our physical address:

Leprecon, LLC

10087 Industrial Drive

PO Box 218

Hamburg, MI 48139

(810) 852-4300

Glossary of Console Related Terms

A.C.
In Alternating Current, it is the flow of electricity that reverses polarity a number of times per second.

Amp
The measurement used to describe the amount of electrical current flowing in a wire or circuit.

Blackout
A switch that, when pressed, will blackout the entire show. It is very useful when the operator wants to show external effects like pyrotechnics, video, or spotlights.

Board Channel
On a console a channel may only be represented by a number which is assigned by the system to control any number of physical dimmers, color scrollers, or other devices. Generally a control channel represents the smallest easily divisible set of controls a designer has over groups of lighting instruments. A soft patch or pin patch is used to assign dimmers or groups of dimmers to individual control channels.

Bump Button
A switch used to quickly bring a board channel to full intensity. Pressing a bump button is an alternative to using a fader. Bump buttons allow rapid manual control over lighting control channels. On some consoles bump buttons can be put into solo mode where all channels except those controlled by the bump button go out.

Chase
A lighting design term referring to a group of lights which are turned on and off in a sequence. A chase can be a complex multi-part cue affecting large groups of lighting instruments, and can be manipulated by rate, intensity, and fadetime.

Crossfade
A lighting term that refers to a cue which one set of lights increases in intensity while another set simultaneously decreases in intensity. A crossfade is one common way in which a change of scene can be indicated in a theatrical production.

Cue
Theatrical way of recording and playback looks. A Section of a lighting desk which allows a list of pre-plotted lighting states to be 'played back' on the push of a button. These lighting states normally have fade times allocated to them.

D.C.
Direct Current; does not change polarity, and is usually associated with batteries.

DMX
DMX 512 is a standard dimmer control protocol implemented by U.S.I.T.T. to provide a means for interfacing dimming and control equipment from different manufacturers. A single DMX control cable carries dimmer intensity information for 512 dimmers serially down 2 wires.

Dimmer
A device which causes connected lamps to decrease in intensity. Most dimmers for entertainment lighting use are some variation of an SCR. Individual dimmers are traditionally arranged in modules of two dimmers with modules combined into dimmer racks. Solid state electronic device used to vary the intensity of the lights. It provides the electrical muscle for the console.

Fader
A potentiometer used to set the level of a board channel.

Group
A group is a convenient way to combine multiple lights and select them at once.

Incandescent Light
Most standard household light bulbs as well as tungsten halogen lamps are incandescent. The color temperature of most incandescent lamps ranges from 1800 to about 3800.Kelvin.

Intensity
The brightness of a light usually and is controlled by a dimmer.

Load
The amount of power required for a lighting element.

Non Dim
A term used to describe a circuit that does not pass through a dimmer, or a load that is not intended to be connected to a dimmer.

Patch
Patching is a component of most computer memory consoles that allows dimmers to be patched electronically to control channels within the system. Generally multiple dimmers can be patched to single control channels, but a dimmer cannot be patched to more than one control channel. The term patching takes place at several key points in a lighting system: at a patch panel, at a pin patch, or in a soft patch.

Phase Control
A dimming method normally used to control the power to the light.

Preset or Submaster
A lighting term for a scene stored in the console's memory that contains levels for each board channel for later use during a performance.

Programming
The process of recording cue values into a console's memory.

Volt
It describes the amount of electrical potential available from the power source to a load.

Watt
The most commonly used term to describe electrical power. It is the product of Voltage multiplied by Current. Volts X Amps = Watts.

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