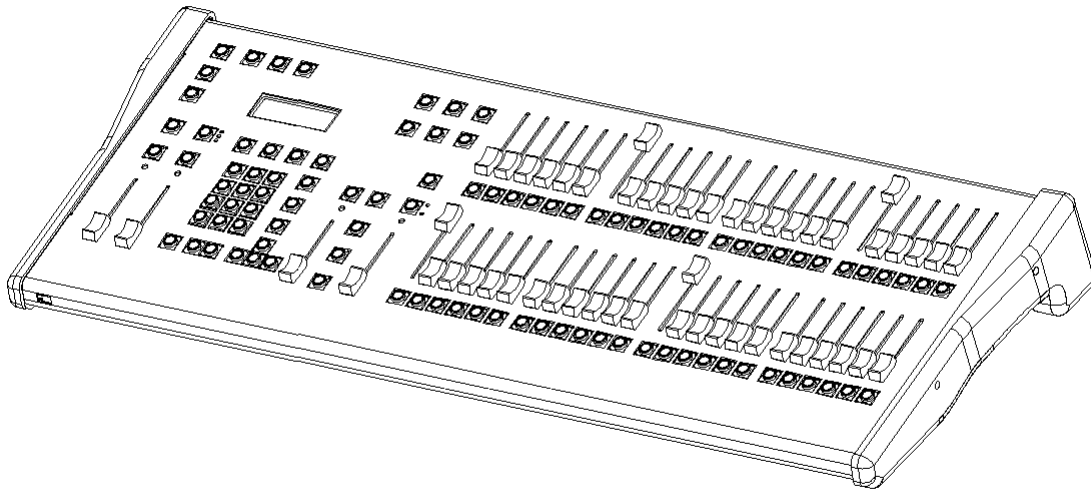




LPC Quick Start Guide

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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 manages up to 204 control channels.

1.2. DMX dimmers

512 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 standard USB mouse and keyboard.

Standard VGA monitor and USB mouse needed for operation. Monitor resolution 1024 x 768.

ELO touchscreen monitors are supported by LPC, allowing easy touch control instead of using a mouse.

1.5. Show Storage

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

2. Startup

2.1. Connections

1. Connect monitor to VGA port. LPC has fixed 1024 x 768 resolution.
2. Connect USB keyboard and mouse.
3. If an ELO touch screen is being used, connect USB from touch screen monitor.
4. Connect AC power cord.
5. Turn on power.

2.2. Boot sequence

1. A Linux boot screen will appear, and some text displayed showing the boot progress. This is normal operation.

2.3. Power -off

To turn off the LPC:

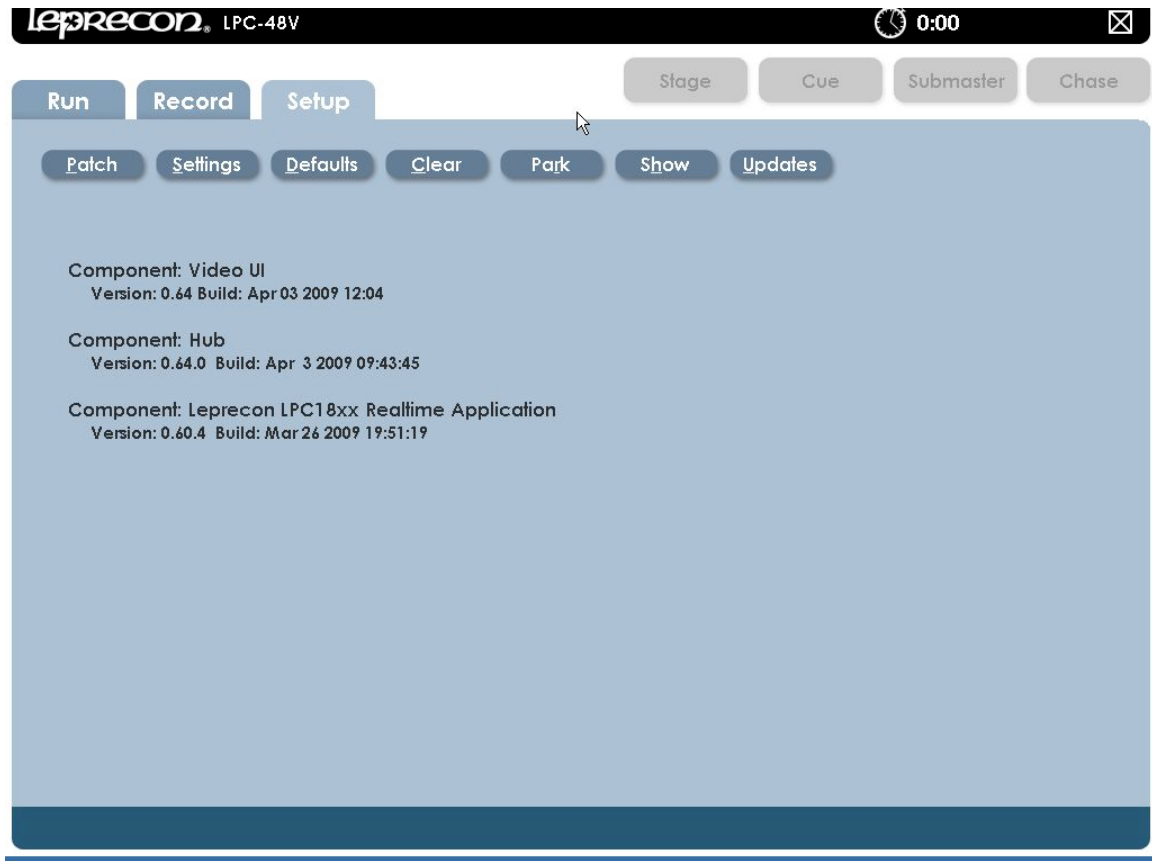
1. Click on the X in the upper right corner of the screen. A dialog box will appear asking 'are you sure?'
2. Confirm the shutdown dialog box by clicking or touching 'yes'.
3. After about 30 seconds, turn off the power switch.

3. Setup

The main setup screen shows the current software versions, and contains submenus for all setup functions.

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.

The LPC title bar at the top of each screen also shows an elapsed time stopwatch. Clicking on the clock face will start, pause or reset the elapsed time display.



3.1. Patch

Dimmer to board channel assignment is set in the patch screen. System default patch cannot be modified, but can be copied to a new patch.

Patches can be viewed by channel or by dimmer. Proportional patch allows maximum level to be set for any dimmer circuit.

Applying a patch makes it active, and the dimmer to channel assignment changes at the time it is applied.

3.2. Settings

The Settings screen sets the following conditions:

Manual mode -

This selects either 2 scene preset or wide mode for the manual faders. This change can disrupt stage output, so is set as a configuration item.

Work Lamp intensity

This control sets the light level of the gooseneck work lamps.

3.3. Defaults

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

This includes fade times and chase rate, and is applied to newly created items.

3.4. Clear

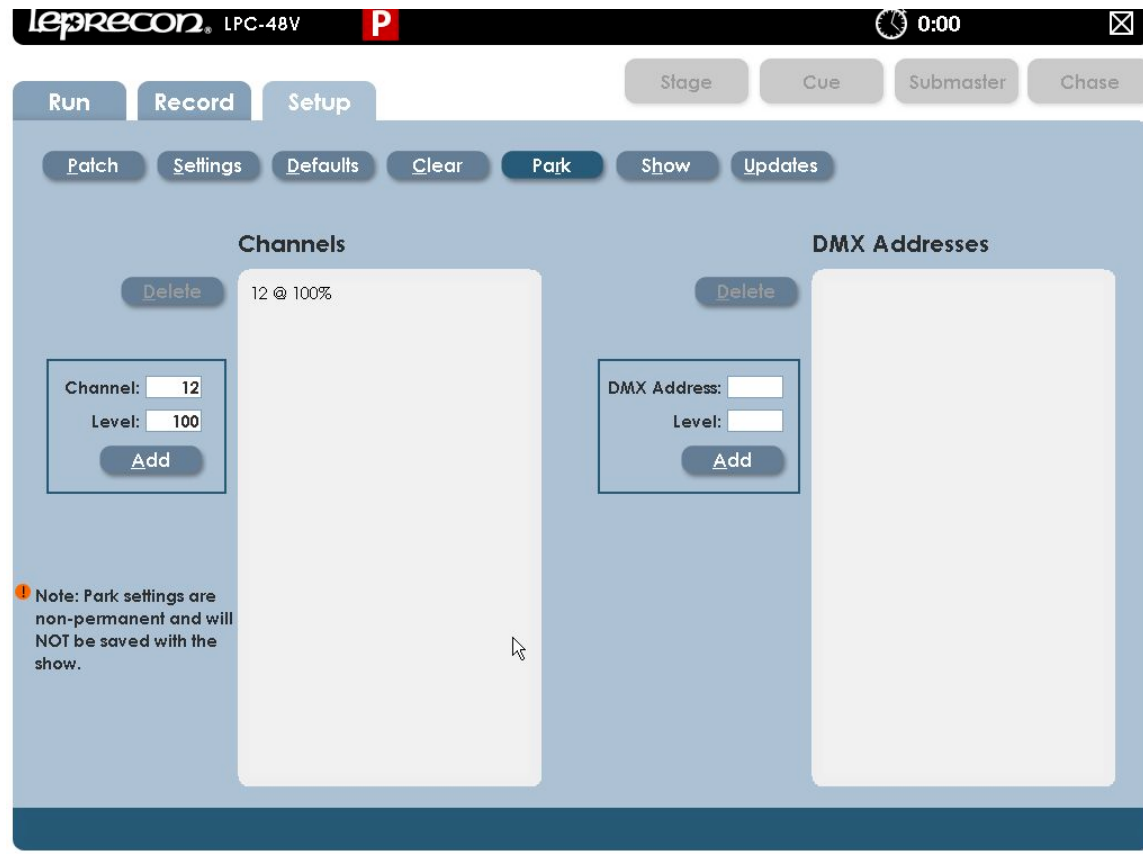
Clear functions are used to erase selected areas or the entire board memory.

3.5. 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 below:



Channels and dimmers that are parked are shown in a list. Selecting an item from the list and deleting it will 'unpark' the channel or dimmer.

NOTE:

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.

3.5. Show

Backing up and restoring show data to an external device is done from the Show screen.

3.6. Updates

Software upgrades are installed in LPC in the Updates screen. Files are loaded from flash memory to LPC program storage.

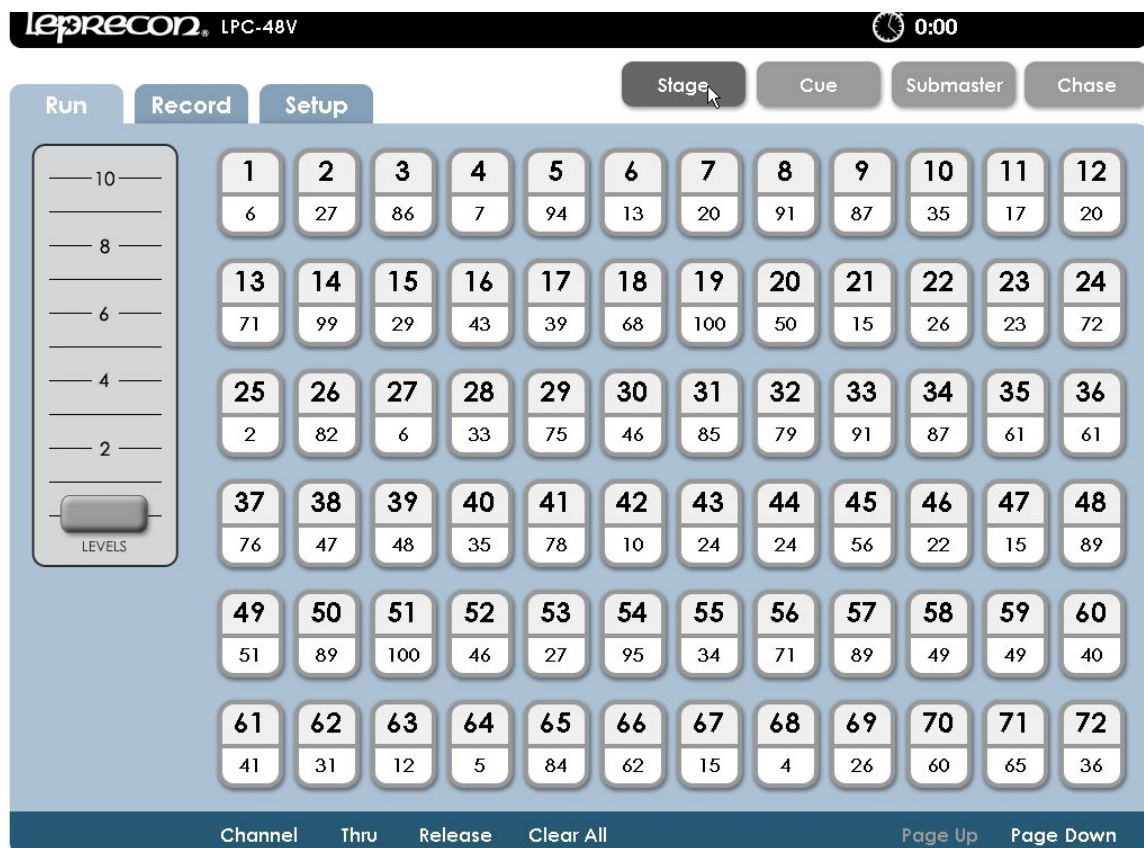
4. Stage view - manual channels

LPC allows manual channel control using front panel faders. Channels beyond the fader range (48) are set using the video interface or keypad.

The manual fader on the left side of the board controls manual channels. Getting output from the manual scene requires the Grand Master and the Manual fader to be up.

Select the Stage View to use simple manual channel control. LPC must be in Run Mode to see Stage view.

Manual channel control is also available in Submaster Run and Cue Run screens; controls and features are similar.



4.1. Using manual faders

With the Grand Master and manual master fully up, push up faders to bring up channels. The operation of the manual faders (wide mode or two scene) is set in the Setup area.

Two banks of faders are used to set manual levels. The two banks can be used in three ways:

Single scene 'wide' mode - allows control of up to 48 channels.

Two scene mode - used to control 24 channels with two banks of faders.

Manual plus subs - bottom bank of faders is used as submasters.

The choice of 'wide' or 'two scene' operation is in the setup menu. Switching between manual and submaster mode for the bottom bank of faders is done with a front panel switch.

4.2. 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 to set the channel levels. If there is not a touch screen installed, clicking with the mouse has the same effect.

Touching or clicking channels will select and de-select them. A group of channels can be set using the 'thru' control, using either the screen control or the front panel switch.

The 'release' control deselects channels, and the green highlight disappears. New channels can now be selected. The 'release' key on the front panel works the same way.

Pressing 'Clear' plus 'Enter' will set all channels to zero, including manual faders.

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.

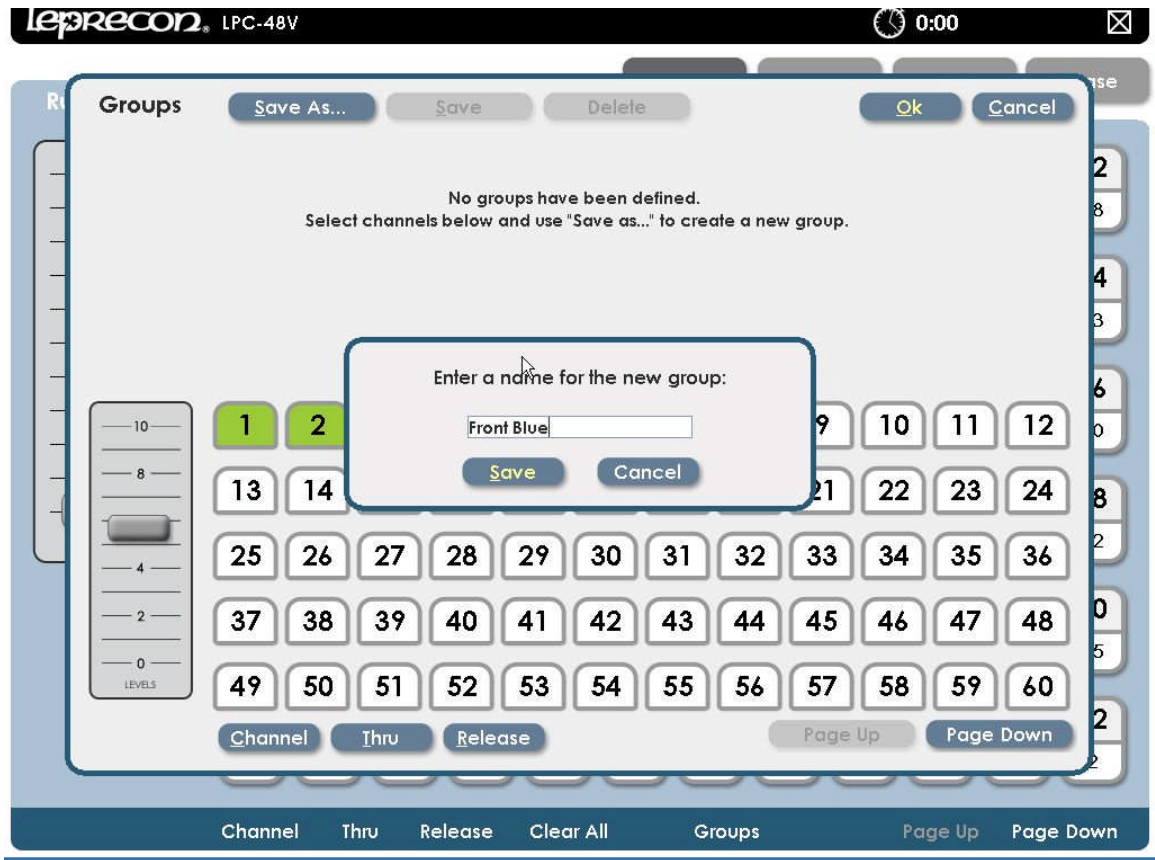
Channel xx thru xx at Level xx Enter
With channels selected, use the level slider to tweak levels.

Repeating the channel selection process allows a new group of channels to be selected.

4.5. 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.

In any Run or Record screen, press the Group key on the front panel, or click on the word 'group' at the bottom of the screen.



If there are channels selected when the 'group' button is pressed, that selection will be carried into the 'group' creation screen. Channels can be selected and de-selected from the group screen as well.

Once channels are selected, click or touch 'save as' to create the new group. Give the group a convenient name, and it can be re-used for future recording.

4.6. Bump buttons

LPC bump buttons are used to flash a channel or submaster to full level. There are four modes of bump operation, controlled by the front panel 'bump' key.

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.

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

Note: When a submaster is turned on with toggle mode, it will fade up and down using Submaster fade times.

5. Submasters

5.1. Recording Submasters

Selecting Record and Submaster tabs brings up the Submaster Record screen. The screen shows submaster properties at the top of the screen, and channel levels at the bottom.

Channel levels shown are the actual LPC output, so previously recorded submasters can be used to build new looks.

Leprecon LPC-48V 0:00

Run Record Setup Stage Cue Submaster Chase

Page: 1 Up Fade: 0:10 Linked Chase: 1

Submaster: 1 Down Fade: 0:10 Chase Rate: 60

Title: scene1

That submaster is already in use.

Save

10 8 6 4 2 LEVELS

1	2	3	4	5	6	7	8	9	10	11	12
6	27	86	7	94	13	20	91	87	35	17	20
13	14	15	16	17	18	19	20	21	22	23	24
71	99	29	43	39	68	100	50	15	26	23	72
25	26	27	28	29	30	31	32	33	34	35	36
2	82	6	33	75	46	85	79	91	87	61	61
37	38	39	40	41	42	43	44	45	46	47	48
76	47	48	35	78	10	24	24	56	22	15	89

Channel Thru Release Clear All Page Up Page Down

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.

5.1.2. 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.

5.1.3. Saving Submasters

Set channel levels for subs using manual faders, video interface, or channel selection keys.

Predefined groups can be used also to select channels for recording. Press the 'group' key on the front panel to show previously created groups. Click or touch on the group name to select, then click or touch 'OK' to return to the record screen.

The stage output will show levels set for submaster recording.

Pressing the 'enter' key or clicking on 'save' will store the submaster data. A message will be displayed confirming that 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.

5.1.4. Quick Looks

Six special scenes, called Quick Looks, give fast access to specific scenes. Quick Looks are special submasters, with no page location. Quick Looks are always available, and are ideal for giving lighting control for specific scenes to untrained operators.

To record Quick Looks, click the page drop down. Above page 1 is Quick Looks. Selecting Quick Looks gives access to the six memories.

Channel data and fade times are set for Quick Looks as with any other Submaster.

NOTE: Since Quick Looks are convenient ways to set work lights or other non-cued levels, 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.

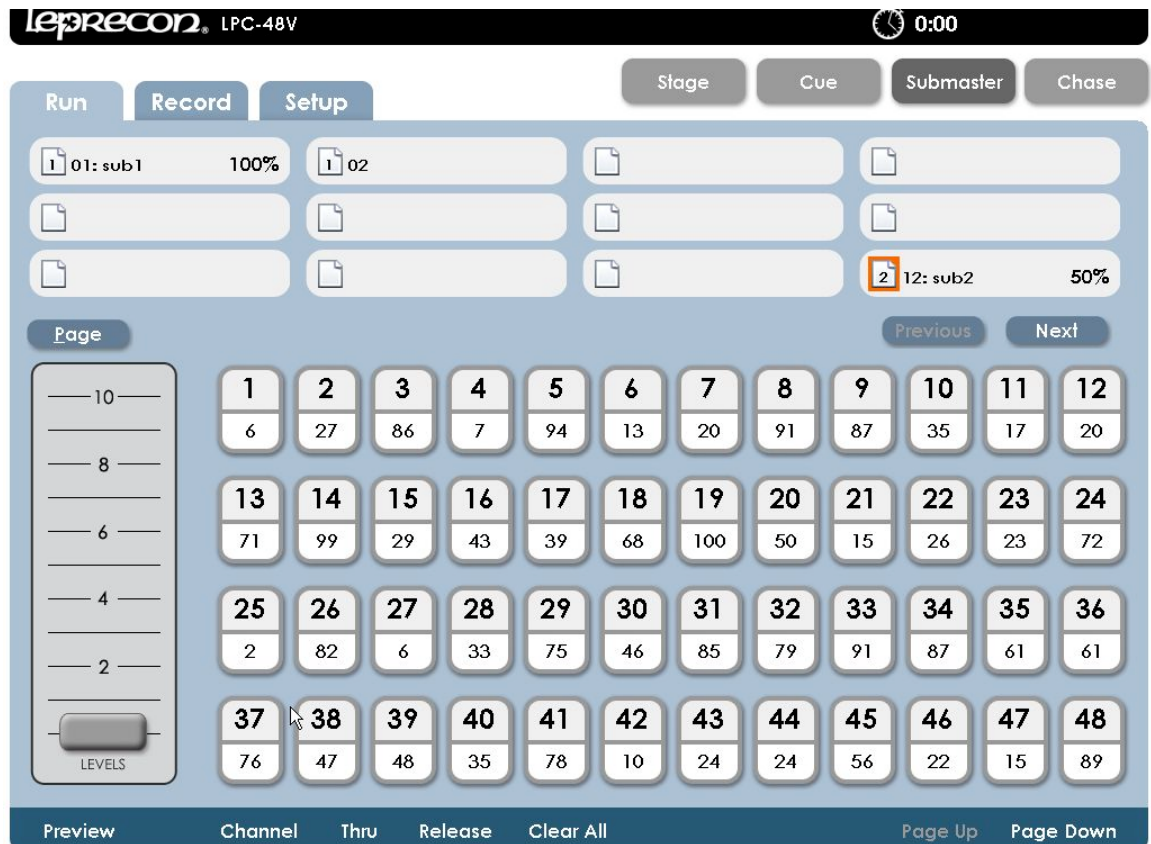
5.2. Submaster Playback

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.



5.3. 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.

Clicking 'save' will update the submaster channel values.

Another submaster can be previewed, or click 'exit' to return to Submaster Run screen.

6. Cues

6.1. Recording cues

LPC can save and play back up to 500 cues. Each cue has independent up and down fade time, and can have delay and follow times associated, if desired.

The entire Cue Stack can be turned off if LPC is used only for manual and submaster control.

Open the Cue Record screen to set new Cues.

Leprecon LPC-48V 0:00

Run Record Setup Stage Cue Submaster Chase

Cue List

Cue: 2.5 Follow Time: Inf Linked Chase: [dropdown] Link: [input]
Wait Time: 0:00 Chase Rate: [input] Title: [input]
Up Fade: 0:00
Down Fade: 0:00 Save

LEVELS

1 6	2 27	3 86	4 7	5 94	6 13	7 20	8 91	9 87	10 35	11 17	12 20
13 71	14 99	15 29	16 43	17 39	18 68	19 100	20 50	21 15	22 26	23 23	24 72
25 2	26 82	27 6	28 33	29 75	30 46	31 85	32 79	33 91	34 87	35 61	36 61
37 76	38 47	39 48	40 35	41 78	42 10	43 24	44 24	45 56	46 22	47 15	48 89

Channel Thru Release Clear All Page Up Page Down

6.1.1. 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.

6.1.2. Saving Cues

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. Any previously recorded submasters can be used to set channel levels as well.

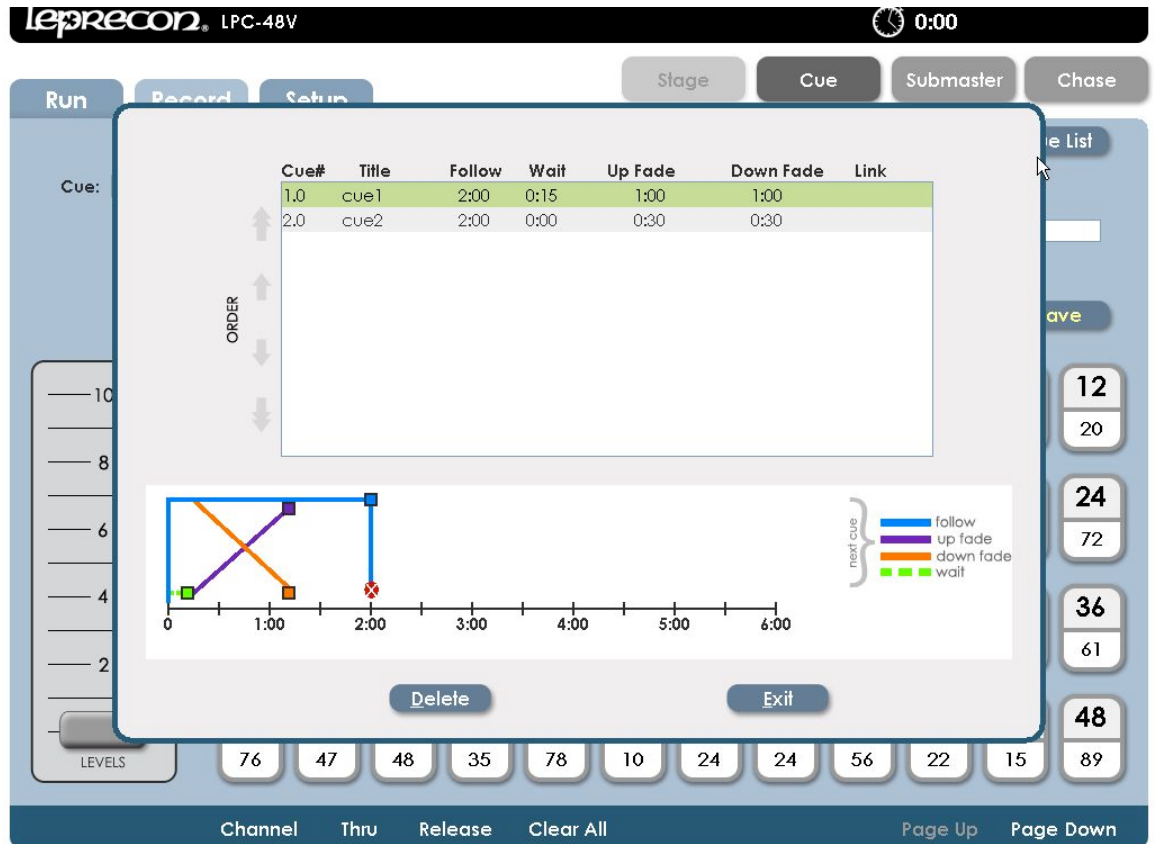
Pressing the 'enter' key or clicking on 'save' will store the Cue. A message will be displayed confirming that the Cue was saved.

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

6.1.3. 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.

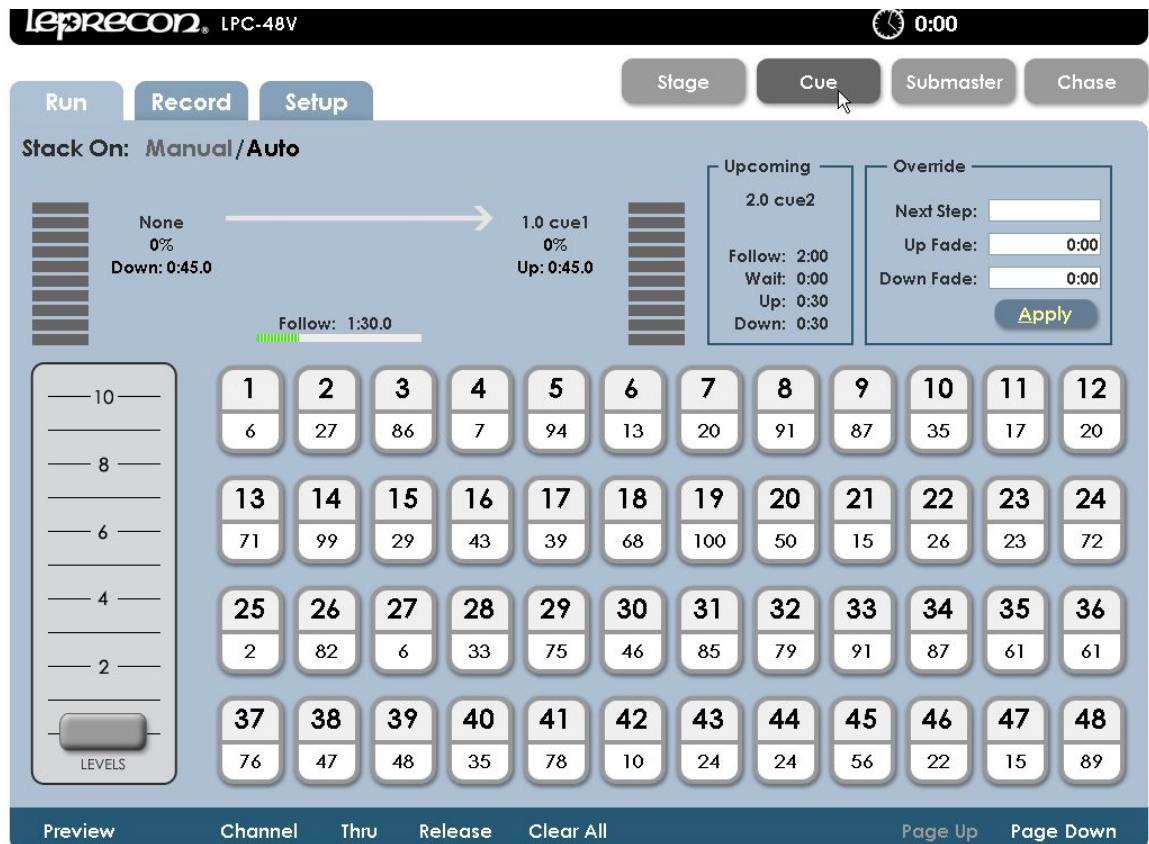


The graphic at the bottom of the screen represents scene timing values. Future releases will enable timing to be changed by dragging the timelines.

Cue order can be changed by selecting a cue, and using the up and down arrows on the left side of the screen to move a cue up or down the list.

6.2. 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. If there are wait times or hold times that are elapsing, that is 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 shown, as well as the fade times.

To jump out of sequence to a different cue, use the Override controls. Press the front panel 'Cue' button, this will move the cursor to the 'Next Step' field. Enter a new cue number, and set timing if it is to be different than the saved time. Pressing Apply or Enter loads this new cue as the next cue to be played back when the Go button is pressed.

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.

6.2.1 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 the original position will crossfade between the next two cues.

6.2.2 Timed Fades

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.

To use the manual fader again after timed fades have been started with the Go button, press the 'Hold' key. The word 'Hold' and an exclamation point will appear in the Cue screen. Move the crossfader to the end of its travel, and the word 'Hold' will disappear. Now moving the fader will control the crossfade from cue to cue.

6.2.3 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.

- Press Hold. An indicator will appear on screen that cue playback is on Hold.
- 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.
- Move the 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:

- Move the manual crossfader to the bottom position.
- Move the 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.
- Once the level is matched, the manual fader will have control. Move the manual crossfader to the top position to complete the fade.

6.3. 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 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 Cue Run, click or touch the 'preview' control at the bottom of the screen.

All properties of the selected cue will be shown. Channel levels can be adjusted using

the same techniques that are used to create the Cues; faders, channel controls, or touching channel numbers.

Clicking or touching 'Save' will update the cue. 'Previous' and 'Next' can be used to preview other cues in the show.

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. 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.

The screenshot shows the Leprecon LPC-48V software interface. At the top, there's a header bar with the Leprecon logo and 'LPC-48V' on the left, and a clock icon with '0:00' on the right. Below the header, there are four tabs: 'Run', 'Record', 'Setup', and 'Chase'. The 'Chase' tab is selected. To the right of the tabs are three buttons: 'Stage', 'Cue', and 'Submaster'. Below these, there's a 'Delete...' button. The main area contains fields for 'Pattern: 1 [System]', 'Step: 1', 'Rate: 4 BPM', 'Title: Chase 1', and 'Max Loop Count:'. A 'Blend' slider is set to 100. A message states 'Steps of a system chase are readonly.' Below this is a 4x12 grid of buttons, each with a number (1-48) and a value. The values are: Row 1: 6, 27, 86, 7, 94, 13, 20, 91, 87, 35, 17, 20; Row 2: 71, 99, 29, 43, 39, 68, 100, 50, 15, 26, 23, 72; Row 3: 2, 82, 6, 33, 75, 46, 85, 79, 91, 87, 61, 61; Row 4: 76, 47, 48, 35, 78, 10, 24, 24, 56, 22, 15, 89. At the bottom right, there are 'Page Up' and 'Page Down' buttons.

1	2	3	4	5	6	7	8	9	10	11	12
6	27	86	7	94	13	20	91	87	35	17	20
13	14	15	16	17	18	19	20	21	22	23	24
71	99	29	43	39	68	100	50	15	26	23	72
25	26	27	28	29	30	31	32	33	34	35	36
2	82	6	33	75	46	85	79	91	87	61	61
37	38	39	40	41	42	43	44	45	46	47	48
76	47	48	35	78	10	24	24	56	22	15	89

7.2. Chase properties

Each LPC chase has the following properties:

Pattern - specified which chase is being recorded.

Step - shows the last step saved

Title - A name that can be given to each chase pattern

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.

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

7.3. Saving Chase patterns

In the Chase Record screen, set the channel values for the selected step. Clicking or touching 'save' will store the chase step.

When all steps are recorded, exit the chase screen.

7.4. 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. Tapping a tempo will update the chase rate.

7.5. Chase Preview

Preview a chase pattern to check and change steps that have already been recorded. The background color changes to show that the channel display no longer shows Stage view.

From the Chase 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 selected pattern and step.

In Preview mode, all the channel selection methods (faders, touch screen, channel dialog) can be used to change step channel levels.

Clicking 'save' will update the pattern step values.

Previous and Next controls will allow more steps to be previewed. Click or touch 'exit' to leave the preview mode and return to Chase Run.

8. Support and Contact Info

Up to date product information will be available from our website:

[www. Leprecon.com](http://www.Leprecon.com)

We can also be reached at our physical address:

Leprecon, LLC
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Hamburg, MI 48139
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