



## **BCR 2000 to Ableton LIVE**



## **Mackie Control Emulation**

**Version 4.1 – revised manual 6.15.08**

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## Introduction

This bcr2000 preset (sysex file) was created by me, using [Bcmanager](#) and [Bcreditor](#).

It is based on extensive work from [Namihei](#) and others at the [Ableton Live forum](#). Many thanks to all their hard work.

## What is it for?

This preset will turn you cheap BCR2000 into really nice, *almost*, full Mackie Control Emulation. Does it do everything, no. It *will* increase you productivity significantly and get your hands off the mouse/keyboard.

**Try it**, you have nothing to loose, except 1 preset slot on the BCR2000. Functions and usage are explained below.

## New features

This preset will **overwrite preset #2** – Back up your presets *before* playing with this. You have been **warned!**

- Scaled back to 1 preset. (see [image](#) for new layout)
- Added functions by using knobs as buttons via sysex.
  - Think of them as rotary switches.
  - That do 1 thing when turned clockwise and a different thing when turned counter clockwise.
    - Bank <+>.
    - Cursor < + >, and up down.
    - View clip-fx/bottom, browser/arrange-session.
    - previous marker, next marker.
    - New in 4.1
      - Punch in and out.
      - Undo/redo.
      - Home/end.
- Moved faders to top row,
  - Bar leds indicate levels.
  - Resolution changed,
    - if you turn knob slow = slow increments,
    - fast = large value changes. In fact, can go whole range with quick twist.
- Vpots moved to 3<sup>rd</sup> row from bottom.
  - Similar resolution adjustments.
    - Quick twist = whole range,
    - slow = small changes in value.

## Installation

Send the sysex file to the BCR2000.

- BCR2000 – Mode U1, is what I use, check your bcr manual for help on that.
- This file will **overwrite** preset #2 on the BCR2000. Make sure you back up all your bcr2000 presets before sending this file. You have been warned twice!
- Send “BCR2000+Live\_ver4.1.syx” to the BCR2000 using your favorite sysex librarian. When you send the file, you will see the BCR's lights dance.

### PC –

- [Midiox](#), is an awesome free ware program with many other functions. You will need midiyoke, available at the same place, if you plan to use huskervu with it.
- You can also use, and I strongly recommend, Bcmanager, see link above.

## OSX –

I don't run a mac, good luck. Here are some sysex options, I have not tested any of them.

- [SysEx Librarian](#)
- <http://opuslocus.com/forums/viewtopi...fa614bfef0bbe8>
- [Debehinger 1.0](#)

## Ableton Live – Setup

Set up for Live is pretty straightforward.

- Preferences>midi sync – control surface 1 drop down to MackieControl
  - Input – whatever the midi port is called in your system (BCR2000 on mine) or however midi data is getting from the bcr to Live.
  - Output, what ever midi port is back to the BCR2000.
    - The output port is important for visual feedback on the BCR2000.
    - If you are using Huskervu (why wouldn't you) follow the instructions on that website. (See screen shot below)
    - If on a mac, the [LC Xview](#) looks good, you will still need some way to route midi back into the BCR2000.



- Scroll down the midi ports and open up TRACK and REMOTE for both input and output on BCR2000. (I'm not sure if you need track?)

## No Value scaling

Value Scaling should *not* be used, if you route control surface midi output back to the BCR2000. If you do, you will get fader jumps.

## Example routing – Closed Loop

BCR2000>AbletonLive>(virtual port)Huservu or LCXview>BCR2000. You should have a Closed loop.

## Start up order *is* important

**Always** boot the BCR2000 1<sup>st</sup>, then any lcd emulation, then Live. Otherwise, it won't have the BCR2000 ports listed. Set up ports as you need. Image below shows that I send the output to the midiyoke3 (I set that as the input on Huskervu).

## Usage

**View** my [movie](#) for a demonstration of what this preset does. The layout of controls in version 4.1 is not the same as in the movie. Sorry, and no, I am not going to film it again. The following will describe controls.

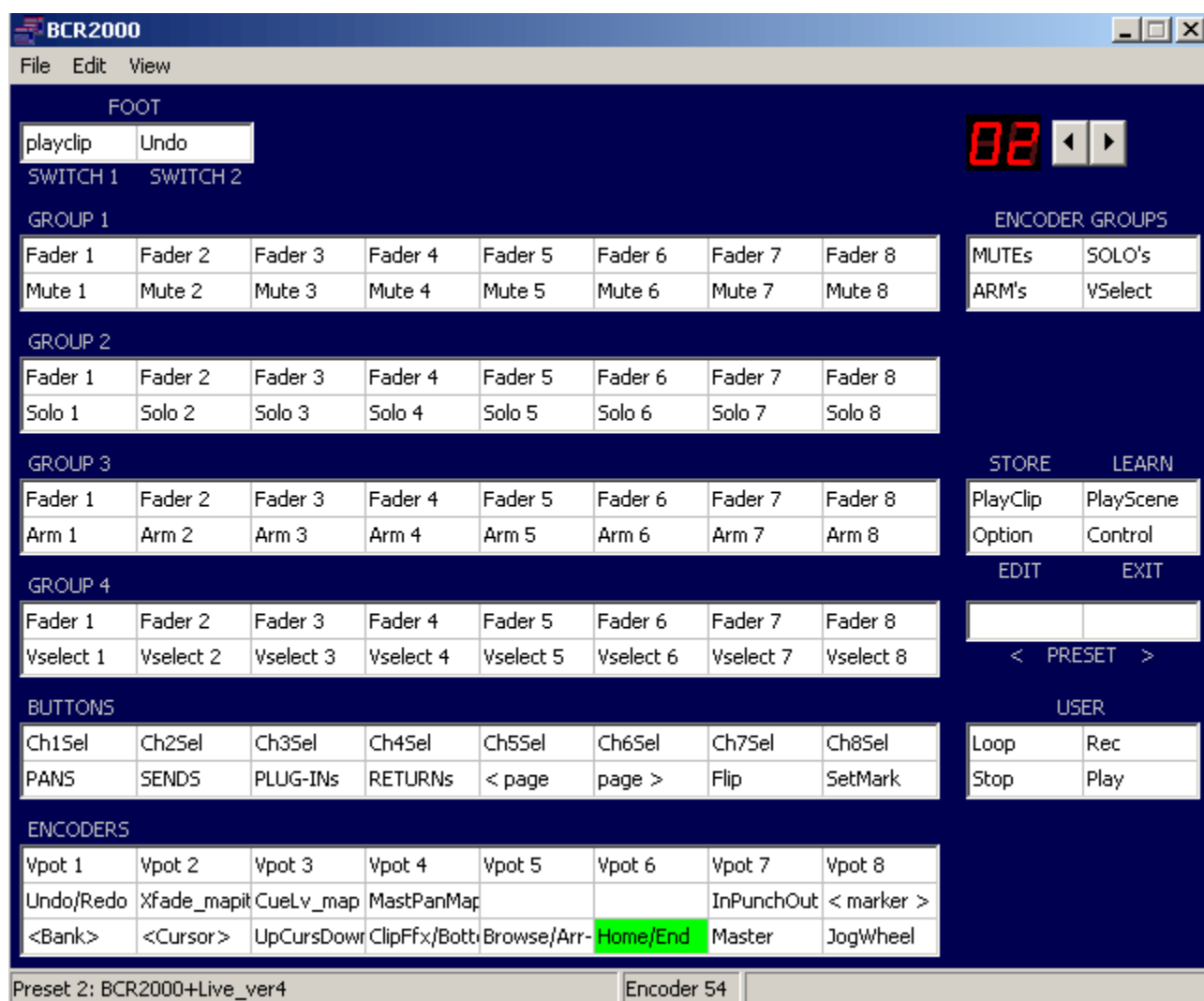
*Try this – With live open and setup.*

- Go to *preset 2* on your BCR,
- twist the third row up from bottom ([see image below](#)) **vpot1** (leftmost knob, third row up) you should see the *lights next to the KEY button in Live at the top right*, light up showing data exchange. If not, check your midi routing and the Live setup for mackie control .You should also see the pan knob for track 1 in Live follow **vpot1**.
- **Vpot2** will control track 2 pan etc... \* Note - *the vpot led's don't work correctly*.
- Try, **fader1** and you should see the fader on track 1 in Live, follow. You might also note the the fader leds on the BCR2000 follow the position in Live (and they remember when you bank down to 9-16 and back!).

## New rotary switches

These are new – they use the rotary knobs as dual direction switches. Their behavior is a little strange at first.

- Look at the **InPunchOut** control on the 2<sup>nd</sup> row up 2<sup>nd</sup> knob from the right.
- Watch in Live as you turn the knob clockwise. The *punch in* symbol in Live will light up, keep turning clock wise and it will turn off.
- Turn the knob counterclockwise and the *punch out* symbol in Live will light up, keep turning and it will go off.
- Notice how the counterclockwise turn did *not* affect punch in.
- *This* behavior takes a little getting used to but, becomes second nature when you understand what the knobs are doing.



Screen Shot of Bcmanager(see link above): BCR2000+Live\_ver4.1 layout.

## Control descriptions

### ***Mute/solo/arm/vselect***

(encoder group buttons top right) Look at the screen shot again of the layout of this preset to make sense of this.

- **Each of the 8 Faders has can be pushed, as a button function.**
- If **encoder group #1** button (MUTEs) is active then these buttons become **mutes** for each track 1-8 (unless you have more tracks and use the bank buttons from above they will follow).
- **Solo hit the solo button** = faders pushes are now solos. **Arm** and **v-select** work the same way.
- If you want to **arm** multiple tracks or **solo** multiple tracks you need to press and hold **CONTROL** while pressing the faders you want armed or soloed.

## Vpots

Using this preset all about the **VPOTS** and how they control different things depending on track selected and (pan, send, plugin and return buttons). Experiment, you won't be disappointed!

Vpots are located on the third row of knobs from the bottom. These are the **main** controls for the emulation. Their functions *change*, based on other *buttons*. (Pans, Sends, Plug-ins, Returns and Flip)

- **Pans** – each vpot controls pan by track. Vpot1 = pan on track 1.
  - If more than 8 tracks – **Bank <+> (rotary switch)**.
    - **Banks** – are in sets of 8, 1-8, 9-16, etc..
    - No limit.
  - Clockwise turn of the bank knob will go out, 9-16 then 17-24... etc.
  - Counterclockwise turn of the bank rotary switch (knob) will come back, 17-24 then 9-16, then 1-8. Visual feedback from LCD emulation is necessary to know where you are.
- **Sends** - each vpot controls send by track, as with pan.
  - The number of sends is directly related to the number of return tracks in the project. \*Note – if you have no return tracks there are no sends.
  - **Push Ch1SEL** button (see chart above, top row of buttons) = Live will highlight track1,
    - Next hit the **SEND** button, now –
      - **Vpot 1** becomes send 1 level,
      - **Vpot 2** becomes send 2 level (depending on how many return tracks you have, if you have 5 then there will be 5 send knobs each corresponding to a Vpot.
    - Now hit **Ch2SEL** button = Live will highlight track2.
      - **Vpot 1** becomes send 1 for track 2 and
      - **Vpot 2** becomes send 2 for track 2... etc. This really works.
- **Plug-in's** = Set the vpots to control plugin settings! Some sort of LCD emulation is a must, for this to be effective. \*Note – *controlling plugins takes some time to master*.
  - *Try this*, open a project of yours with some native Live effects or a vst on a track.1.
    - Press **ChSel1** (bcr button press) track 1, or use cursors (described below) or computer cursors to highlight track 1.
    - Press **PLUG-IN's** (LCD emulation will show plugins for track 1)
    - Then press the **v-select button** (encoder group button #4, located top right, 1 down)
      - Push down on the top row (**fader1/push**) = chooses the first plugin,
      - if you had more than one you could use (**fader2 push**) to select the second plugin... etc



- **Vpot** knobs 1-8 will, now, control that selected plugins first 8 parameters.
  - Again without some sort of LCD – you are flying blind. Huskervu works great with this.
  - You will get titles and values of parameters.



Screen shot of Live with native plugin visible on Huskervu.

- If the selected plugin has more than 8 parameters –
  - **Page > button led will light up. (that is cool!)**
  - Use the **Page <,>** buttons to navigate thru the pages of parameters, the vpot will control the parameters visible on the LCD emu.
  - If there are only 8 parameters – the **Page >** button led will NOT



Screen shot Huskervu with Live + a vst plugin showing prameters.



light.

- That, friends, is really nice!
- You can change back to sends or pans just by hitting those buttons.
- **Returns** - control the return tracks and are a special case for the entire emulation.
  - Hit **Returns** -
    - Now **faders** control the volume of each **return** track (**Fader 1** will control **return** track **A**)
    - **Vpots** control **pan** or **send** or **plugins** on return tracks!
    - Mutes/solo/will also work on return tracks.
  - LCD emulation is important here too!
  - Hit **Returns** again to get out of those controls.

### Using LCD emulation

**Huskervu** – or some other LCD emulation is necessary for successful use of this preset. How many times shall I say it? The visual feedback of what you are controlling with text and value displayed makes it easy to work with. See the screen shot above. \*Note - Some vsts have labels that show up in Huskevuvu, some do not. Crystal (great free synth) only shows “param#1, param#2 etc... I think racks show something like that too, bummer.

### Faders

Top row of knobs = control the level of the tracks – 1-8, 9-16, 17-24 ... etc (depending on bank button status).

- **Flip** – When flip has been pushed the **vpots** and **faders** switch places
- Be aware of that if **faders** are not doing what you expect.
- **Master** – the master fader is located on the bottom row of knobs next to Jog. Master only controls the master level, never, anything else.

### Navigation and control

This section is about using the **PlayClip**, **PlayScene**, **Cursors**, **Marker + Markers** and **Jog**.

- **PlayClip** , **PlayScene**, **+OPTION** -
  - **PlayClip**=play what ever clip is highlighted, hold **OPTION** + **PlayClip**=stop what ever clip is highlighted.
  - **PlayScene**= play highlighted scene, **OPTION+PlayScene**=stop the scene.
- **Cursor (<,> down, up)** commands have been added as rotary switches. Bottom row 2<sup>nd</sup> from left (see image below) Now I can't remember which does what...
  - **Cursor <,>** Turn knob left (counterclockwise) = cursor moves left and will continue moving left. Turn same knob right (cw) = cursor moves right.\* **NOTE** - This behavior (one control one direction turn, a different control for the other direction) is common for all the new rotary switches (bottom row up to jog and includes marker<>).
  - Same with up down. Now, if I knew which was what...

- **SetMark** – this button sets marker points.
  - **Marker** <> - rotary switch, bottom row far right -
    - **Marker** < - will go to the previous marker.
    - **Marker** > - will go to the next marker.
- **JOG wheel** in *session view*.
  - **JOG wheel** = up and down clip list like the cursors above.
  - **JOG** in *arrange view* is really a **JOG** and it is awesome
- Transports at the bottom right set of buttons is pretty self-explanatory.\***Note** – *no rewind or ff, sorry, they need momentary buttons and won't work well with the rotary switches... ran out of room.*

## **View – rotary switches**

Allows control of the different ways to view what you see on screen with Live.

- Clipfx/Bottom view –
  - ccw = toggles clip/fx view.
  - cw = toggles bottom section in live
- Browse/Arrange-session-
  - ccw = toggles browser view
  - cw = toggles arrange/session view.
- Home/End
  - Home = moves cursor to the 0:00 or start position
  - End = takes you to the end.

## **Other controls**

Some controls have not been mentioned up to this point

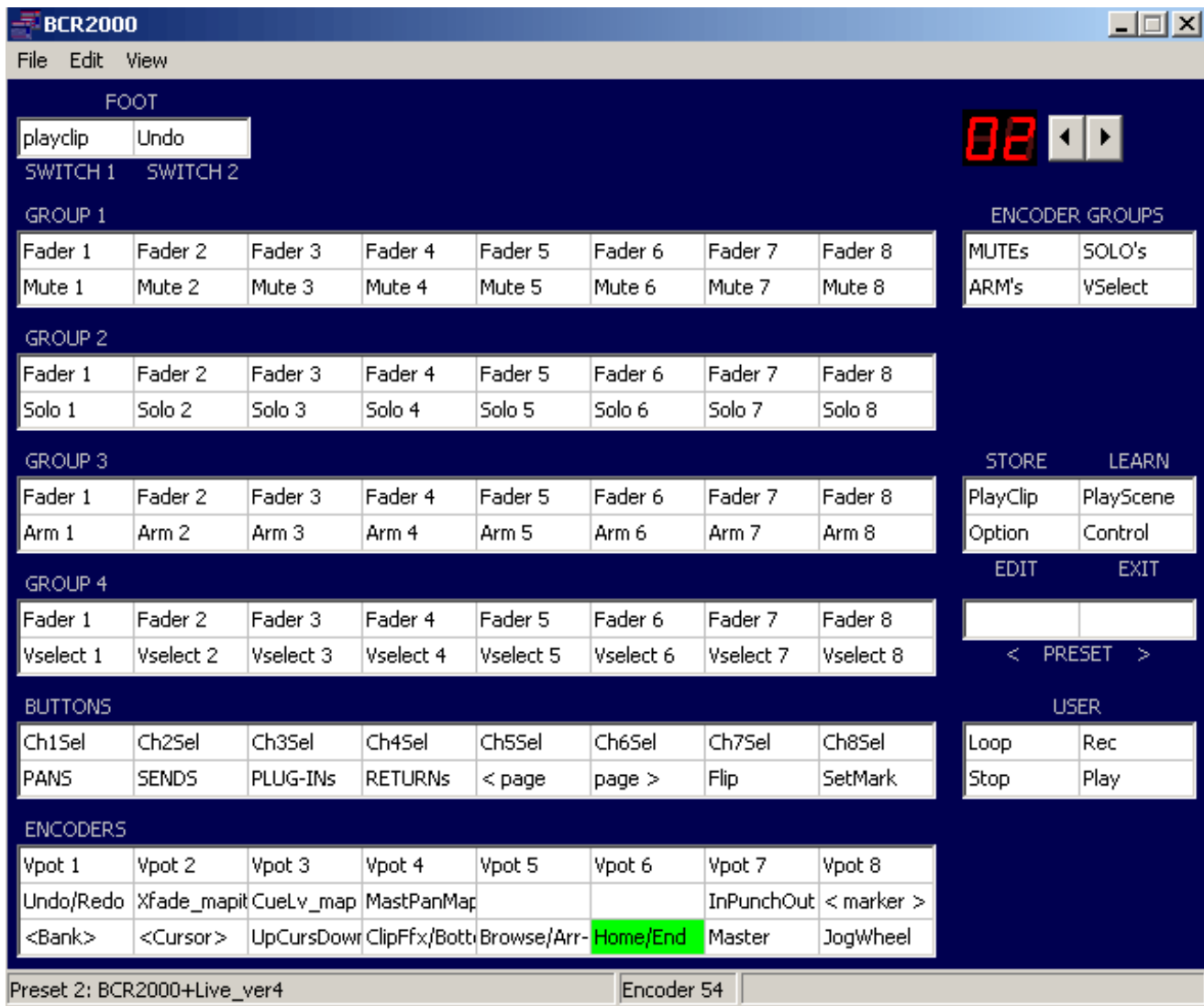
- Undo/Redo – that is what it is.
- Option button – some functions already mentioned above. Other functions not known at this time...
- Control button – Press and hold control to multiple arm or multiple solo tracks. Other functions not known at this time.

## **Don't forget the 2 foot switches**

- **#1 play active clip** – if the track is armed this will begin recording so hands free trigger. This is nice for guitar or bass.
- **#2 undo**. You can use Jog or cursors to go to next clip or **Track buttons** to go to other tracks. Almost like have the fcb1010, but not quite, only two foot switches.. alas. Also, foot switch info does *not* show up on Huskervu.

## **\*Preset arrow keys**

*These controls are not altered so, you can switch quickly, between presets. You can't do that with a UC33e!*



## Tips for this preset

You don't have to use it, however, I think you will like it.

- Play with it.
  - Open some project you are not worried about, to get used to using this preset.
  - Maybe, print out the above image to look at
    - Make labels so you can just look and go. (I use artists low tack tap and write names on that tape)
    - Bcmanager, will print labels!
    - I have not done so, so I can't tell you how well it works.
- Make sure you understand about the <BANK> controls.
  - Again, some sort of LCD emulation will help you know where you are, visually.
  - Bank will affect faders, vspots, mutes/solos/arms/vselects.
- Remember, if you move or delete a Live track all controls will remap appropriately. (You can't do that with the 1 template in Live 6.01. I think 7 changed that... not sure.)

- If you don't like it you can always go back to just having faders, the stock “all controls” for BCR2000 and LIVE, and plug in controls by switching presets. One button press and you are back to the old way.
- You can still change presets on the fly like if you are working with a softsynth or some vst you have mapped. Don't forget that the **plugins** command does work with vsts.
- If you want to change the layout, just use bcmanager to work the file the way you want, then save and send it back to the bcr2000 and you have customized it yourself. It is pretty easy with bcmanager.

## Tips for Bcmanager

- Use it, you will love it.
- You can move controls where you like with bcmanager (see link at the top of the page). I strongly encourage you to download that program to make this controller do what you want. You can copy and paste, set ranges, do all kinds of fun things. I guess you know, I like bcmanager.
  - Beware tho, when you first use it you may accidentally overwrite all your presets. I did this. Back up before you begin.
- The file included here is 1 preset.
  - Get used to bcmanager for a little bit before sending this file.
  - You can dump your bcr to bcmanager and save it. Bcmanager will request the dump, no need to touch the bcr besides turning it on and routing midi.
  - You could then open the .syx file included here with bcmanager, highlight just that preset and click send from the preset window, **not send all to bcr**, just that one preset.
  - Remember it will overwrite preset #2.

## Final thoughts

If you are opening this, then you have a BCR2000.

I cannot stress how flexible this controller is and how easy it is to edit presets using bcmanager.

If you have a pc then you must go to the [bc2000](#) yahoo group. Mark and Royce have created some excellent editors for the pc. No more, buggy java editor from the company. The wealth of information on the controller and its flexibility is well documented by Mark and Royce. Go join and learn.

Best of luck.

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