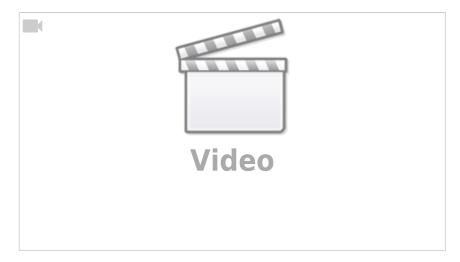
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## **MSQ-CC-LRE**

MotionSeQuencer for ControlChanges for 2xLRE8x2 Boards Synth-Patch-Editor & Motion-Sequencer 4 ControlChange (= CC-Automation)





## Introduction

Controls and automate a Nord Drum2 (Drum-Synth )NORD DRUM 2

#### It acts as:

- **Midi Merger** NTE,CLK,PC merge with CC... **Patch Manager** it replaces the Synths internal Patch Storage, each PC Number from your Sequencer is added by the BANK CC (CC 32), where each Nr is ADD 128 PC Numbers more...
- Motion Sequencer Record your Controller Movements in a Sequence in 32th Resultion @ maximal

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256 Steps length

#### **Features**

- Remote your Synths by: 8x Midichannels with up to 32x Control Change (CC)
- Save the Patches and dump it to Synth
- Load hundrets of Patches via received Program Change + the Bank-CC (CC32)
- **Save Patches** vie CC24 + CC value 0-127... when sending before a BankCC32 you can expand that to  $128 \times 128$  patches
- Record CC-Motion-Sequences PLAY Motions-Sequences up to 256 steps @ 32th rate VELOCITY MORPH Add Velocity-Ammount to CCs
- MERGE incoming Midi-Notes/Clock/Pitchbend with Automated CCs
- Set Sequencer Beatstructure how to interprete Clock-ticks (4/4, 5/4, 6/4, 7/4...) CC23
- **Global Page**: for example you use 8 simular Drum-Voices, with the Global you have 8 channel strips with dedicated Controlls, for example:

8xVolume, 8xTone/Noise-Mix, 8xDistortion, 8xClick

if you have one Synth over 2xMSQ\_CC\_LRE Tracks(booth set to MidiChannel 0, to get 64CCs instead of 32), then the Global Page: have the abillity to show/edit a parameter from Track1Voice on Track1Global, and from Track2Voice on Track2Global... it depends how you set the Midichannel in the Systemsettings (which are hardcodet but via Mapping Array changeable)

- for one multipart-synth, MSQ\_CC\_LRE do all the Preset Store, and Automations, so it is one Unit > to use the Unit in a other way would make all the Patches (128×128 patches) useless, so once done, its bound to it, load all with Programchange! minimal is better here, there will be other **MSQs** outthere see MSQ-CC-BCR

# **Hardware Requirements**

#### **External Requirement:**(for example)

- Melody/Clock Source with ProgramChange-Output: midibox seg v4l oops that dont do PC...
- Melody/Clock Destination: NordDrum 2

#### Midibox:

- core32
- 1xMidi IO connect 1 midicontroller and 1 Note/Clock-Source/Destination
- SD-Card, formated with FAT32, and the file "bcr1.syx" on it
- Soldering Iron, Wires, PCB....
- USB Power Supply... I tried to use the Midi-BUS-Power from BCR2000 but it is too weak!
- 2x LRE 8×2 mb-lre8x2cs pcb
- 3 extra Encoders and Ledrings (to controll the unit) + Pushfunction inclusive Button LED
- 8 Momentary Buttons without LED
- 1 Momentary Button with LED
- 1x DINX4
- 1x DOUTX4

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### Setting

#### Cabeling

MidilO PortB Out »> Synth Midi IN MidilO PortB In »> Clock+Notes

### **Frontpanels**

#### **Stickers**

#### **LCD**

it would be possible to add 16 OLEDs but... but i dont have the money for that right now....

#### **MBHP**

## **Software**

## **Firmware**

V1. from 9.05.2018msq cc lre v0.norddrum2.zip

hardcodet for a NordDrum2 - but change-able in Mapping via a Array in Sourceode: this is the maping which says wich of the 32 internal CCs are one of the outhernal CCs (0-127):

This Mapping says which one of the 32 internal CCs are positioniered in the Mixer/Overview/Channelstrip-Mode

```
const of C. (Map[18][31] a C. //C. Mps] (Action String Set) [CC to remay to Pulpa]

// Set No. Mps] // Jost No. Mps] // Jost
```

there are 8 deep edit pages, and 8 overview pages.

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## **CC Routing to Synths**

MSQ\_CC\_LRE internal i have 8×32 CCs, they are always identical. but with a simple input output matrix i can decide which CC it gets in real world. each of the 8 Part can have midichannle 0-15...

So we talking about Mapping... in the moment it is made in the source code with a simple array.

### To Do

alot, but since it is base on MSQ-CC-BCR! most is done, and its running solid

maybe scale min max values for CC: for example different synths have only 0-3value instead of 0-127, by different functions like WAVEFORM...) - this will be interesting when using other synths then nord drum...

### Resources

# Community users working on it

• **Phatline** = Programming, Documentation...

Just let a Private message on the forum to user already involved, the sourcecode is includet in the firmware .zip!!!

From:

http://www.midibox.org/dokuwiki/ - MIDIbox

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