micromodul DJ1

Filter

Amount

Cutoff

Seek/Scrtch Reso/Width List/Load Phones/Vol

System

LowBat

Gain

Cue A

Phones Mix

Cue B

Gain

High

1

High

2

Mid

3

Mid

Shift

Low

Low

A

B

Cue
II

Select Deck

Pitch

▶II

Cue ▶

Sync

—△

▽+

+

micromodul DJ1

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User manual

Content

Provision of guarantee and product liability

The seller warrants for faultless material and proper manufacture for a period of 24 months from the date of sale to the end user.

Excluded from the stated guarantee are defects on parts as the result of normal wear-and-tear. These parts are mostly faders (sliding guides), potentiometers, encoders, buttons, switches, and joysticks.

Also excluded from the guarantee are damages that are the result of :
incorrect or inappropriate handling,
excessive force,
mechanical or chemical influences,
incorrectly connecting the instrument with other instruments,
incorrect or inappropriate use.
The warranty is void if the instrument is opened or changed. In addition, there is no warranty for individual parts and components (in particular, semiconductors) and disposables/consumables. The seller is not liable for consequential damages which are not the result of criminal intent or negligence on his part.
The following conditions must be met in order to claim the warranty services:
Instrument is either in its original packaging or similar packaging.
Copy of the invoice with the serial number clearly visible.
Meaningful error report or description of the error is attached.

The buyer assumes all costs and dangers of return shipments to the manufacturer. Since the user's manual which is included with each instrument also affects the warranty conditions (especially regarding safety issues), it is absolutely essential that you read through and follow all instructions.

Safety precautions and servicing

- The instrument's intended use is based on the functions and procedures contained in this manual
- Read all instructions for use as well as all accompanying literature before using the instrument
- Use only in closed rooms (not for outdoor use)
- Never use in a moist or humid environment (laundry rooms, swimming pools, etc, …)
- Not for use in the vicinity of heat sources (radiators, ovens, etc, …)
- Operational temperature is in the range of 0° - + 40° C
- Not for use in the vicinity of flammable material
- The instrument should not be in direct or prolonged contact with sunlight
- Dusty environmental conditions should be avoided
- Only for use with mains adapters which comply with the specifications in the chapter, "Power Supply"
- Only for use batteries which comply with the specifications in the chapter, "Power Supply".
- Pay attention that batteries do not leak while in the instrument (especially during extended storage)
- When connecting to other instruments, pay attention to the instructions in the chapter, "Connecting to the computer"
- No foreign objects are permitted inside the instrument casing
- No liquids should get inside the instrument casing
- Never let the instrument fall to the ground (casing and/or control elements may be damaged)

If the instrument must be opened (for example, to remove foreign objects from the casing or for other repairs), this may only be done by qualified personnel. The batteries must be removed and the mains cable must be disconnected before opening the instrument. Guarantee is void for defects that occur if the instrument was opened by an unauthorised or unqualified person.
Use a soft towel or brush to clean the instrument. Please do not use any cleaning liquids or water, so you avoid any damages to the instrument.

Introduction

It is 2004. Music is being made with electronic instruments that were originally intended to replace the typewriter. PC's and Mac's are replacing more and more synthesisers, pianos, CD players and LP turntables in the inventory of today's musician.
What do you really need to make your own music?

Taking a DJ as an example, you would need:
A computer (a notebook would be best), DJ-software (**Traktor DJ-Studio** from **Native Instruments** would be best), a pool of your favourite MP3 files, and a hardware controller (the **micromodul DJ1** would be best). Since this kind of music is actually "hand-made," it is absolutely essential to have a controller with sliding guides, knobs and buttons. Almost noone wants to use a computer keyboard to drive a car or use a HiFi system. Every type of activity that is based on human interaction needs to have a special, ergonomic interface.

The computer DJ also needs these special operational elements (cross-faders, line-faders, EQ pots, and a cue/monitor section) in a classic format in order to offer optimal performance. This exactly what the **micromodul DJ1** offers.

micromodul DJ1 is a small DJ controller that contains everything you need for computer-based mixing. This controller differs from all other controllers on the market in that it does not contain more or less control elements than are needed for classic DJ mixing – and all that, in the usual layout of a DJ-mixer. Of course, a controller can do a lot more than a normal mixer, so we made a whole row of control buttons.

The **DJ1** is not a universal controller. It is a specialist for Djing. The **DJ1** is very compact and easy to transport, and you do not even need a mains adapter since it works with standard and rechargeable batteries.

As of **Traktor DJ-Studio** version 2.0, you can use the **DJ1** immediately by using the settings file which is shipped with the controller - without the lengthy process of programming each separate control element.

Modern Djing – made fun!

The **DJ1** can also be used with other programs. We even made a special configuration file for **Ableton Live** as of version 2.0 which is just as fun. The file can be found on our CD.

Read this user's manual thoroughly. Even if the design is largely intuitive and the instrument is self-explanatory, this manual should be able to answer a question or two. If you should have any sort of other problem with your **micromodul**, just contact us via email using the email address on our homepage:

www.faderfox.de

Product description

Special controller for DJ software (optimised for **Native Instruments Traktor DJ Studio**)

Setup files for **Traktor DJ Studio** as of version 2.0 and **Ableton Live** as of version 2.0 are shipped with the controller

Independent of operating system and computer type (PC or Mac) due to the midi interface

DJ-mixer layout – crossfader, 2 line faders, 6 EQ pots, 2 gain pots and cue/monitor control

Filter section with 2 pots and a button

Multifunctional encoder to select and load tracks, seek/scratch function and much more

8 deck control buttons + 3 special buttons

14 freely assignable, double-function buttons (12 buttons are split for each deck = 26 double functions)

Fadermute for all controls by holding down the instrument's SHIFT button.

Standard or rechargeable batteries (4 x micro cell (AAA) batteries are shipped with the DJ1)

LED battery control

Socket for an external mains adapter (9-12V DC – min. 50 mA)

Midi-merge function

Very compact design in a black, plastic casing (desktop format 180x105x70 mm, 410 g)

Black aluminium front plate with an anodised coating (abrasion resistant) and inscriptions

9 LED's to display various information

High-quality faders, pots, and encoder from ALPS

Expandable system by other **micromodul** controllers

System requirements

- PC or Mac with a Midi-Interface (Midi-Input)

- **Native Instruments Traktor DJ Studio, Ableton Live** or software which allows self-assignments of midi-controls for continuous parameters or key commands for switching parameters. (Optimal with **Native Instruments Traktor DJ Studio** as of version 2.0 with the enclosed setup file)

Power supply

The **DJ1** does not contain an internal mains unit. It was primarily designed for use with standard or rechargeable batteries (4 x micro cell AAA 1.2-1.5 V alkaline, NiCd, NiMH) which are inserted into a compartment on the bottom of the instrument. Please pay attention to the battery poles when changing batteries. This compartment has a safety screw which must be removed before batteries can be exchanged. Batteries usually last between 50 and 100 hours based on quality and brand. In order to increase the battery life-span, the instrument switches into its energy-saving-mode 10 minutes after the last movement was made on any controller. An LED running light displays the energy-save-mode. The instrument is still fully functional, only the LED's are switched off to save power. The instrument leaves the energy-saving-mode as soon as a control is moved (primarily **shift**). The battery control LED (**LowBat**) blinks when the batteries need to be replaced. Don't panic when this LED starts to blink. There is certainly enough reserve energy to finish your gig.

The **DJ1** can also be used with an external mains adapter. The adapter (regulated or not) must have a DC voltage of 9-12 V and at least 50 mA. The adapter must also have a CE symbol.
The adapter plug (hollow plug: 2.1 mm inner / 5.5 mm outer) must be polarised according to the information on the connection plate: outer ring = minus, inner pin = plus.

Power supplied by an external mains adapter always has priority over batteries as long as the mains adapter delivers at least 9 V. This guarantees that the batteries are not unnecessarily used when the mains adapter is supplying the current. If an unexpected power shortage occurs (adapter plug is pulled out), the controller can then continue without any interruption. If the polarity for the mains adapter or batteries are switched, the instrument will not work. This would, however, cause no damage since the system uses protective diodes.

The **DJ1** is turned on via the power switch at the rear of the instrument (LED's illuminate).
When the instrument is being powered by batteries, always try to remember to turn it off when it is not being used, as this will increase the life expectancy of the batteries.

Connecting to a computer

A midi cable is used to connect the **DJ1** to a computer – and the software. This cable is the connected to the midi-out slot on the controller and the midi-in slot on the computer (sound card or midi interface). The midi-in slot on the **DJ1** is used to connect additional controllers and keyboards to the same midi-port on the computer. The data is then merged in the **DJ1** (merge function).

Of course, many users will now wonder why this controller does not have a USB interface. The **micromodul** system is a system of multiple controllers that is able to be cascaded via midi. If USB was used, special software would be required. In addition, many computers with sound cards and USB audio interfaces have a midi interface. This means you would not have to use one of your USB ports to use the whole **micromodul** system.

If your computer does not have a midi interface, or your sound card does not have one either, there is a small and inexpensive solution in the form of a USB midi interface that has both midi-in and midi-out.

Which software can be controlled

The **DJ1** was designed primarily for use with **Traktor DJ Studio** from **Native Instruments** as of version 2.0. We believe this controller supports one of the leading DJ programs on the market. A file with the matching controller settings can be found on the CD. **Traktor DJ Studio** versions before 2.0 can not be completely controlled (only pots,faders, no keys).

The **DJ1** can also be used with other programs. We even made a special configuration file for **Ableton Live** as of version 2.0 which is just as fun. The file can be found on our CD.

If you would like to use this controller for other programs, you should first make sure it is possible to communicate with pots and faders via fixed midi control numbers. For keyboard functions, you need to be able to assign fixed midi note numbers. **DJ1** sends fixed control change events for all controls and fixed note-on (when being pressed) and note-off (on release) for all buttons.

You can not program the **DJ1** or assign controller numbers or key numbers, but that is a function that is rarely needed with current programs.

The corresponding assignments are noted in the last chapter, "**Control numbers**".
You will find out how many parameters you can control and how you can switch modes in the following chapters.

Settings in the system mode

You can activate the controller's system mode if you press both the buttons in the encoder section. The encoder LED blinks to signal this mode.
No midi signals are sent as long as the controller is in this mode. Only the incoming commands (via midi-in) are sent directly to midi-out.

You can also turn the so-called Autoplay on in this mode, which then automatically starts the deck (after the **Load** function). Use the **Select-Deck** button to activate and deactivate Autoplay:
LED **A** on = Autoplay is deactivated
LED **B** on = Autoplay activated

As of software version **MMDJ1S02** you can switch between midi channel 16 and 1 when you press the encoder. All controls sends on the selected channel.
lower LED blinks = midi channel 16
upper LED blinks = midi channel 1
So you can use two **DJ1** and have the possibility to control other parameters with the second device.
Pay attention, that our setups works on channel 16.

In order to exit the system mode, just press these two buttons again. The controller will restart in the normal operational mode after about two seconds (during these two seconds, all LED's turn off, and the system is restarted).
During this restart procedure, all changes made in the system mode are stored. If you turn the instrument off while it is in the system mode, all changes will be lost.

Preparations in Traktor DJ-Studio

First of all, copy the TKS file from the CD directory: micromodul\DJ1 to the Traktor program directory on your computer (standard Windows directory: \Programs\Native Instruments\Traktor DJ Studio; standard Mac directory: \Programs\TraktorDJStudio).
micromodul DJ1 V03 Traktor20.tks for Traktor Version 2.0
micromodul DJ1 V03 Traktor25.tks for Traktor Version 2.5
After the midi connection between the **DJ1** and the computer has been established, start **Traktor DJ-Studio** and select the appropriate midi port as **Interface** in the **Input** area of the **Setup** window. After this is done, press the **Load** button. This loads the TKS file (which was previously copied to the program directory) which contains the controller settings for the **micromodul DJ1**. These settings are automatically available, even after restarting the program.
After these few steps, all supported functions in **Traktor** should be controllable by the **DJ1**. Simply play around a bit with the controls and buttons on the controller and confirm the corresponding reaction on your monitor.

You can always customise the settings if you need additional functions or need to make changes to the standard settings. Just use the **Learn** function in **Traktor**'s **Setup** window. You can assign 14 additional functions to the buttons which are then accessible on the **DJ1** by holding down the **shift** button and pressing the appropriate control button.

These buttons are shaded grey in the diagram to the right.

It is important to note that 12 of these buttons (except **Cue A** and **Cue B**) are focus-dependent (refer to the next chapter). This means each of these 12 buttons has a double function depending on which deck is active.
This means a total of 26 double-functions can be customised and assigned.

Traktor's Learn function is activated with the **Learn** button in the **Setup** window in the **Input** area. For **Channel**, select the 16 and remove the check at **Lock OMNI**.
When you are finished, locate the desired parameter in the listbox and simply move the control or button (or button and **shift**) you wish to assign. Please note, that the controller number or note number in the listbox must appear behind the parameter title. Also note, that each number can only be assigned to one parameter. If you assign a number to a second parameter, then the old assignment is cleared. When assigning the encoder, make sure to check the items **Incremental** and **Invert**, as well as set **Incremental Acceleration** to 0 (left limit). Buttons like **Play/Pause** need the Toggle setting so they can use the locking function.
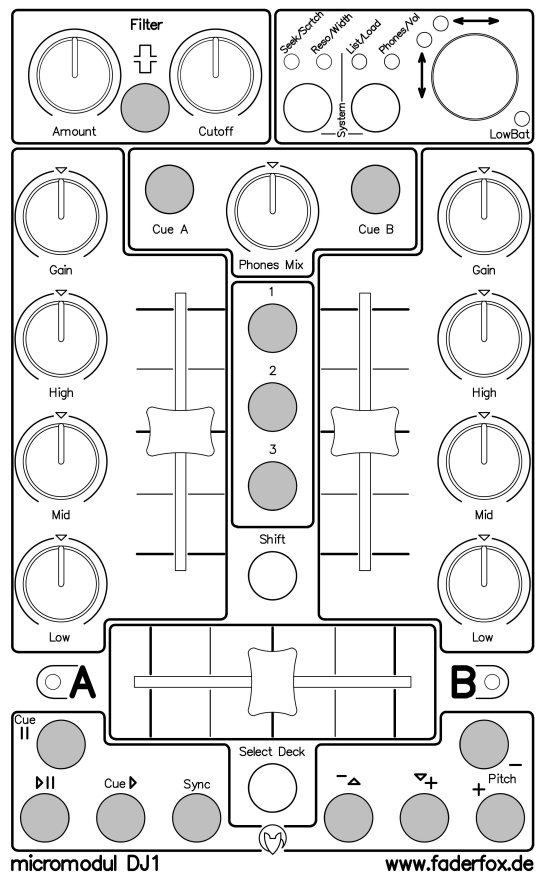
Do not forget to save those time-consuming changes in a new file by pressing the **Save** button.

Working with Traktor DJ-Studio

There are two types of control elements on the DJ1. The first type are focus-dependent. The functions for these elements are switched to the selected deck by pressing the green button **Select Deck**. This group contains the 8 deck control buttons on the bottom edge, the 3 EQ kill buttons (**1,2,3**) in the middle, the entire **filter** section on the upper left, and 2 double parameter controls (**Seek/Scrtch** & **Reso/Width**) in the encoder section on the upper right.

The LED's **A** & **B** show which deck is selected. The group of focus-dependent control elements is shown on this diagram (shown in grey).

The second type of control elements concerns the focus-independent controls and buttons which are not influenced by switching decks.

Always refer to the LED's for deck **A** & **B** and not just rely on the focus displayed on the monitor. This can deviate from the selection made by using the mouse.

The most important controls are, of course, the line-faders, the cross-faders, as well at the EQ and gain pots. The functions of these controls do not really need to be explained to any DJ. The EQ controls have a central locking position. This position can differ marginally from the zero-values in the software.

The 3 buttons with the names **1,2,3** (in the middle) are assigned to the EQ-Kill-Switches for the selected deck. (non-locking functions)

The 8 control buttons on the lower edge correspond to the control functions on the selected deck. Of course, the Pitch-Plus and Pitch-Minus buttons are primarily used to control the tempo, but for this use this term is more common.

The following double functions are assigned to the deck control buttons:

**Shift + Pitch-Plus** = Tempo is set to the original value (middle position)
Shift + Play/Pause = Reverse mode for as long as the button is pressed
Shift + Cue/Play = Set a cue point
Shift + Sync = Tap function to enter the correct tempo

The cue/monitor section above the line-faders is used to control the phones-mix and to separately switch the decks to the phones channel.

You have two of the most important parameters to filter directly accessible, **Amount** and **Cutoff**. These are located in the deck-dependent filter section. The button in between switches the filter type. Two other filter parameters are accessible through the encoder section which is located to the upper right.
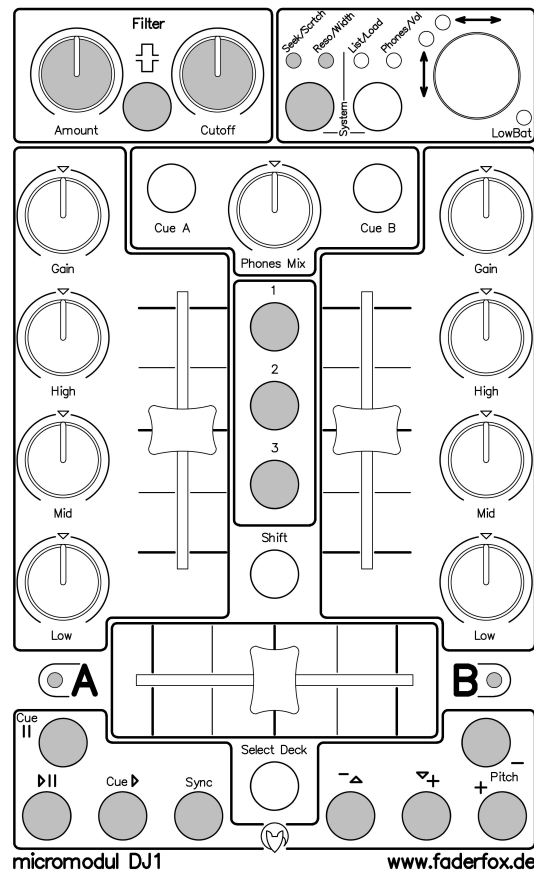
The section with the most flexibility is located to the upper right. In this encoder section, 2 x 2 deck-dependent parameters can be selected with the left button. The right button is used to access global functions and parameters.

If you press the encoder while turning, the upper parameter is changed. If the encoder is just turned (without pressing it), then the lower parameter is changed.

The individual parameters:

Seek/Scrtch = Seek or scratch in the selected deck

Reso/Width = Set the filter parameters with the same name in the selected deck

List/Load = Function to scroll in the **Traktor** browser. The selected track will be loaded to the selected deck when pressed.

An additional function when holding down the shift button, is the fact that all controls (pots and faders) can be moved without a reaction in the Traktor program.

Working with Live

You can also use the **micromodul DJ1** to control the sequencer **Live** from **Ableton** as of version 2.0. All you would need to do is copy the file, **'micromodul DJ1 V01 Live20.als'** to your computer, and open the file in **Live**. You will see a DJ-set with 2 tracks, 2 sends, and a whole row of effects already setup for you. We have already completed all the necessary assignments to the pots, faders, and buttons, so you can start using Live immediately. Please remember to deactivate the Autoplay mode on the controller (refer to the previous chapter). You also have to remember to select the proper midi port in **Live** (the port that the **DJ1** is connected to). You can do this by accessing the menu Options\Presets and going to the menu item Midi/Sync after Midi-Port 1 or 2.
Here are a few explanations about some control assignments.

The green button, Select-Deck, switches the focus between tracks A and B.
Line-faders and cross-faders, as well as the EQ and Gain pots are assigned to their corresponding functions focus-dependent.
The buttons **Cue A** and **Cue B** switch the tracks to the cue/monitor channel.

The focus-dependent control buttons on the lower edge of the controller have the following functions:
Cue/Pause = switches **REDUX** effect on and off
Play/Pause = switches **CHORUS** effect on and off
Cue/Play = switches **AUTOFILTER** effect on and off
Sync = switches **GATE** effect on and off
Minus = controls the length of delay for **DELAY** effect (left channel)
Plus = controls the length of delay for **DELAY** effect (right channel)
Pitch-Plus = displays the Send effect (**DELAY**) for the active track
Pitch-Minus = switches muting for **DELAY** effect on and off

The **Phones-Mix** pot has been assigned to be the only master-effect.
You control the **CRACKLE** effect level (vinyl crackling).

Both focus-dependent pots in the **Filter** section have been assigned to the **Amount** of **CHORUS** and the **Cutoff** of the **AUTOFILTER**. The button in the middle controls the type of filter.

The encoder section has the following assignments:
Seek = CHORUS-Time (focus-dependent)
Scrtch = CHORUS-Rate (focus-dependent)
Reso = AUTOFILTER-Q (focus-dependent)
Width = AUTOFILTER –LFO-Amount (focus-dependent)
List = Browse through the clip list (focus-dependent)
Load = Press to start the selected clip (focus-dependent)
**Phones =** Adjust the monitor volume
Vol = Adjust the master level

Of course, you can make new assignments to the controller in **Live**. Do not forget about the focus-dependent functionality of the buttons when combined with the **shift** button. None of the double functions are assigned, so you could assign these buttons to start a row of clips directly. One thing to note when assigning the encoder function, make sure that 2's Comp. is selected in the assign-mode on the bottom of the monitor border (this always works automatically if you turn the encoder to the left, counter-clockwise, when assigning the encoder). The assign-mode must be set to **Absolute** when assigning pots and faders.

Working with additional micromodul controllers

Multiple controllers are an especially attractive solution for the **Ableton Live** sequencer. You can create your own custom DJ-set by combining 1 or 2 **LV1**'s in order to mix multiple tracks into 2 send-paths. These 2 premixes are then processed by the **DJ1** which does the final mix and applies the effects. The **micromodul LX1** controller can also be a big help with this process as its 64 buttons help to control the individual tracks in the premix or start the clips in these tracks.

All controllers are simply connected with one another by using the midi interface (midi-out to midi-in on the next controller). Of course, there is a file for this configuration with all the necessary presets. You can find more information about this in both the **micromodul LV1** and **LX1** manual. The following are two possible combinations:
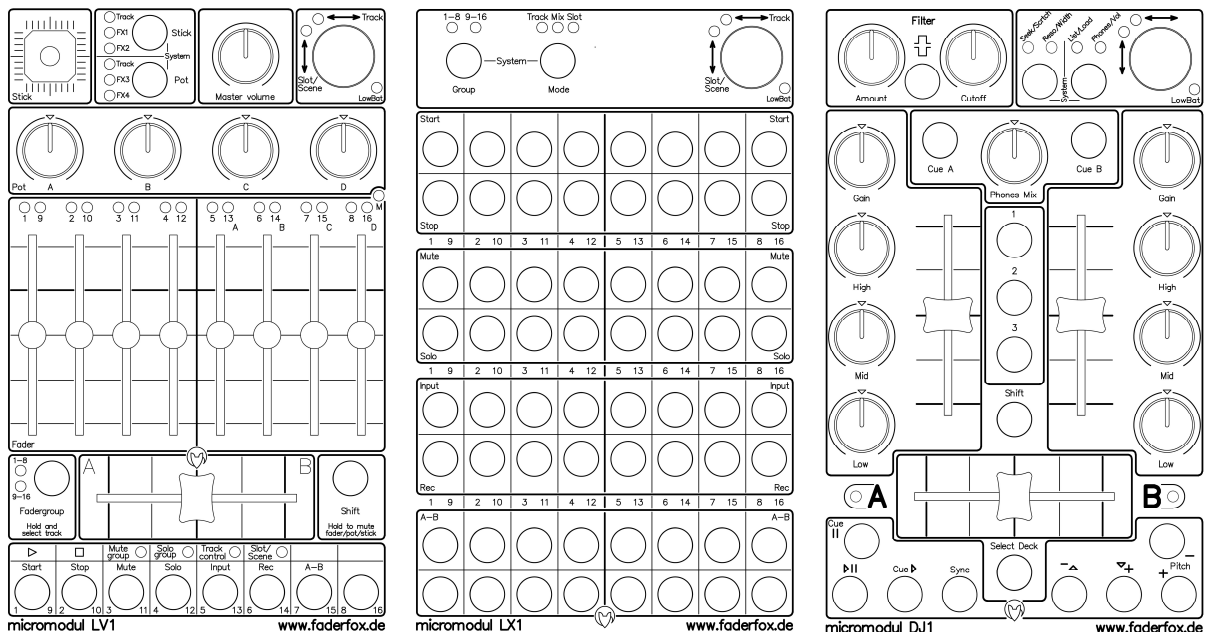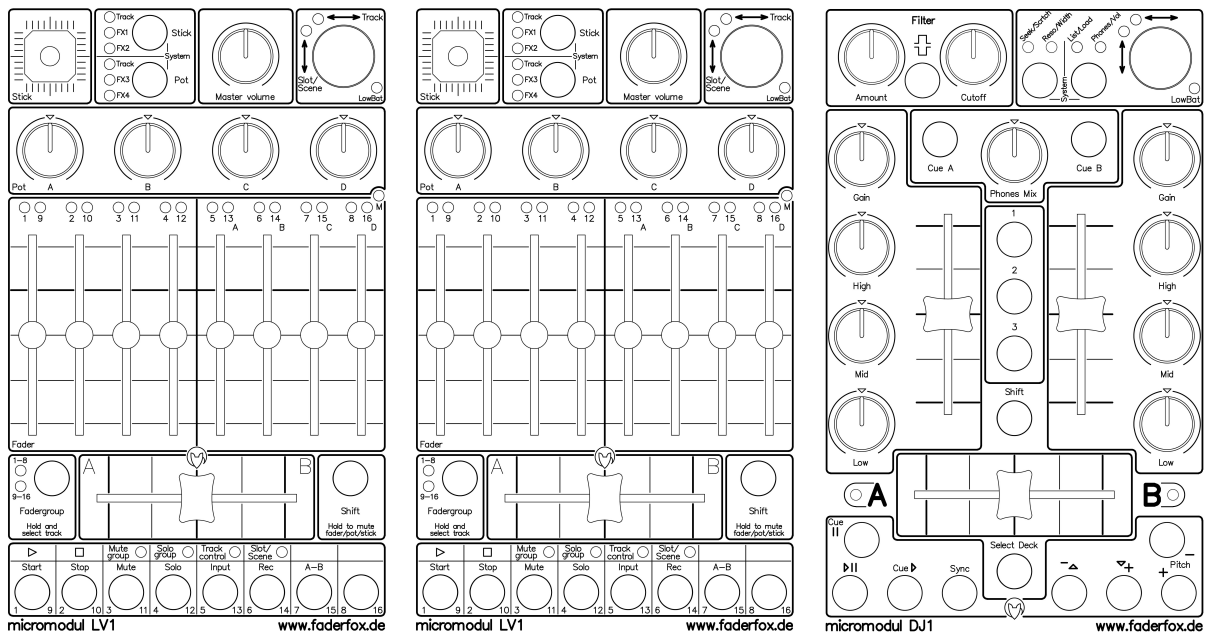
Controller numbers

Pot / Fader / Encoder / Key	CC-No Deck A	CC-No Deck B	Note-No Deck A	Note-No Deck B	Note-No Deck A Shift	Note-No Deck B Shift
F - Crossfader	3	3				
F - Linefader A	0	0				
F - Linefader B	13	13				
P - Phones Mix	12	12				
P - Gain A	7	7				
P - Gain B	10	10				
P - High A	5	5				
P - High B	9	9				
P - Mid A	2	2				
P - Mid B	8	8				
P - Low A	1	1				
P - Low B	11	11				
P - Amount	6	22				
P - Cutoff	4	20				
E - Seek	14	15				
E - Scrtch	16	17				
E - Reso	23	24				
E - Width	25	26				
E - List up			12 (C)			
E - List down			11 (B)			
E - Load			15 (Eb)			
E - Phones	18	18				
E - Vol	19	19				
K - Select Deck			13 (C#0)	14 (D0)	13 (C#0)	14 (D0)
K - Cue/Pause			24 (C1)	54 (F#3)	39 (Eb2)	69 (A4)
K - Play/Pause			26 (D1)	56 (G#3)	41 (F2)	71 (B4)
K - Cue/Play			25 (C1)	55 (G4)	40 (E2)	70 (Bb4)
K - Sync			33 (A1)	63 (Eb4)	48 (C3)	78 (F#5)
K - Pitch Bend down			28 (E1)	58 (Bb3)	43 (G2)	73 (C#5)
K - Pitch Bend up			29 (F1)	59 (B3)	44 (G#2)	74 (D5)
K - Tempo up (Pitch +)			30 (F#1)	60 (C4)	45 (A2)	75 (Eb5)
K - Tempo down (Pitch -)			31 (G1)	61 (C#4)	46 (Bb2)	76 (E5)
K - 1			21 (A0)	51 (Eb3)	36 (C2)	66 (F#4)
K - 2			20 (G#0)	50 (D3)	35 (B1)	65 (F4)
K - 3			23 (B0)	53 (F3)	38 (D2)	68 (G#4)
K - Cue A			17 (F0)	17 (F0)	32 (G#1)	32 (G#1)
K - Cue B			19 (G0)	19 (G0)	34 (Bb1)	34 (Bb1)
K - Filtertype			22 (Bb0)	52 (E3)	37 (C#2)	67 (G4)

CC-No means Control-Change-Number. All midi events are sent to channel 16 or 1.

All polyphonic-aftertouch-events on channel 16 are reserved for internal system communications. This channel should not be used with midi-in, since this could cause with the **micromodul** system. These "events" are only used by a few very expensive keyboards.

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Version 03

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