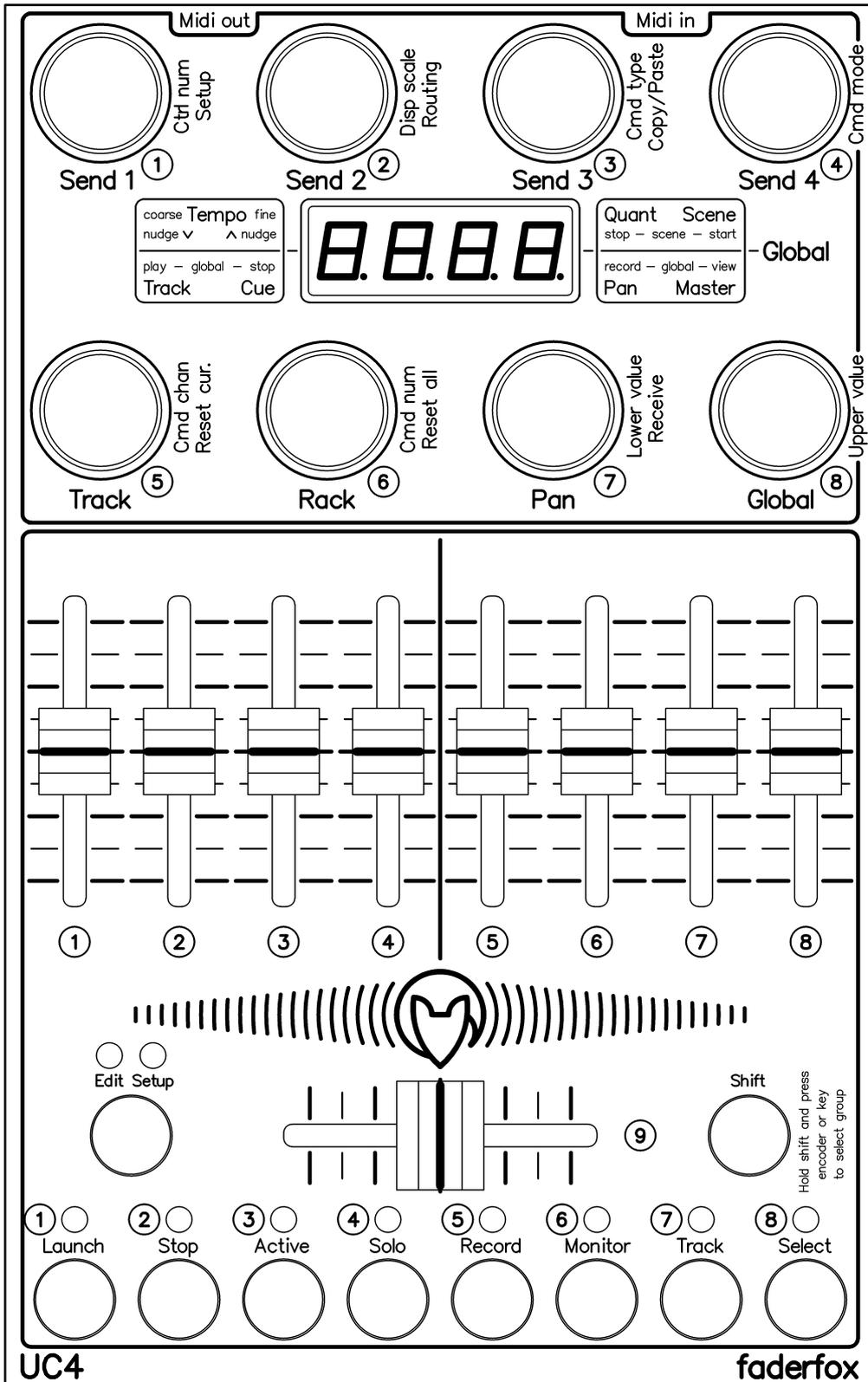


# micromodul UC4



## User manual

## 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 touchpads.

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

- Instrument's intended use is based on the functions and procedures contained in this manual
- Read all instructions for use as well as all enclosed 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
- Connect only to USB ports of computers or hubs
- 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 USB-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.

## **Package contents**

- Device
- USB cable (with angle plug)
- Midi adapter cable (with angled 3.5mm jack plug)
- Manual / Quick start guide
- CD with settings and manuals

## Introduction

Thank you for choosing a Faderfox controller. These probably world's smallest controllers are designed for live use on stage. All Faderfox controllers are professionally hand crafted in Germany ensuring high quality. The 4th generation brings a lot of new features like additional MIDI connections, black faceplates and updatable firmware.

### **UC4 as successor of the UC3 is a universal controller for all kinds of midi controllable hard- and software.**

The all-rounder has 8 push-encoders without detents, 9 faders and 8 buttons, all switchable to 8 controller groups that allow to control a total amount of 264 control parameters. A 4-digit-display and 8 LEDs show the current values of all controls.

Various kinds of midi commands like program change, pitchbend, aftertouch and control change in relative and absolute mode with different acceleration amounts are possible. All these properties are fully programmable on the devices very fast and easy for each control separately.

The encoders can work as high resolution 14bit controllers too (control change or pitchbend) which makes them suitable for sensitive parameters like resonating filter cutoffs or similar things.

Use the internal 18 setups to save your individual settings. Backup and restore of all settings by sysex dumps are possible too.

**The factory settings are perfect to control music and video software products out of the box if they are freely assignable.** So any additional device programming isn't necessary for many applications.

**The little box is also a great extension for your Ableton Live setup.** There you can control all the continuous parameters like track volumes, rack macros, send amounts, track panning and switchable parameters like clip launch/stop, mute, solo, rec arm, monitor and track select. A special control surface script for Ableton Live 8/9 with all necessary mappings is enclosed in the package. With that script you can also use two UC4 devices to control up to 16 tracks simultaneously.

**Check out this amazing power box and you will get a reliable mate...**

### **Extensions to UC3:**

- Midi in/out ports
- 8 additional Buttons
- editable group names
- min/max-values
- programmable encoder push buttons
- fader snap mode
- more precise encoders
- various software improvements

## Features

- **Universal controller** for all kinds of midi controllable hard- and software
- **iPad compatible** with camera connection kit
- **Control surface script** for Live 8/9 is shipped with the controller
- **USB interface with bus powering** - class compliant / no driver necessary (consumption < 500mW)
- **MIDI in and out ports** with routing and merge functionality
- **8 push encoders** without detents (resolution about 36 pulses)
- **Encoder push buttons can send commands** (fully programmable)
- **8 buttons with LED** for switchable parameters
- **4-digit-display** to show control values and programming data
- **14 bit high resolution encoder mode** for sensitive parameters
- **Programmable value ranges** with min/max values
- **Data feedback** for encoders and faders avoid value jumps
- **All controls (incl. push buttons) fully programmable in the device** by channel, type, number and mode
- **Different command types** like control change (CC), pitch bend, aftertouch, program change and notes
- **Advanced programming functions** like copy, paste and group sets
- **8 independent groups** for encoders and faders/buttons (controlled by shift key)
- **About 264 commands** per setup (33 controls x 8 groups)
- **18 setups with backup/restore function** contain all controller settings
- **Very compact design** in a black casing (180x105x70 mm, 350 g)

## System requirements

- **PC or Mac with a free USB port** (1.0 or higher) or any USB hub (connection by inclosed USB cable)
- **iPad** with iOS5 or higher (connection by apples camera connection kit)
- **MIDI device** with standard midi in port (5pin DIN socket connection by enclosed adapter cable)
- **USB power adapter** (5V min 100mA) if you want to control only midi gear

## Controller mode

Controller mode is the basic mode of the UC4. Here the encoders, faders and buttons are used to control any parameters in your soft- or/and hardware by standard midi commands like CC and notes.

First choose the encoder group by holding shift key and press one of the 8 encoders. The display shows the group name: GrP1....GrP8 Pay attention that you can edit the group names in edit mode for each setup separately.

Turning and pushing of the encoders can send different commands which you can program in edit mode. After turning or pushing any encoder you can see the numerical value in the display too. A programmed acceleration gives a better feeling for the encoders so you can go from min to max value easily. Hold any shift key while you turn the encoders to have a precise control without acceleration.

You can also select a independent group for the faders and buttons by holding shift key and press the green buttons. The green LEDs show the selected group 1 to 8.

The faders can work in snap or jump mode. In snap mode you have to catch the last value which avoids any possible value jumps after feedback data or changing the fader group. Jump mode works like a standard controller so the data will be send immediatly. Hold shift while you move a fader to swap these modes temporarily.

The green buttons can be programmed to various modes too. So they can work as momentary switch or in toggled mode, sending notes, CC, program change or aftertouch commands.

The right point in lower right corner of the display shows incoming midi data. It flashes bright when the device receives controller data. Low flashing indicates midi clock or other midi data.

## Ableton Live mode

The setups 17 and 18 are preconfigured for using with Live 8/9. The display shows special group names for the encoder groups (see below).

setup 17 controls tracks 1 to 8,

setup 18 controls tracks 9 to 16

### Encoder groups:

- Snd1 (group 1) controls parameter send 1(A) for 8 tracks
- Snd2 (group 2) controls parameter send 2(B) for 8 tracks
- Snd3 (group 3) controls parameter send 3(C) for 8 tracks
- Snd4 (group 4) controls parameter send 4(D) for 8 tracks
- trAC (group 5) controls various parameters of the selected track  
(tracks below track 16 are available too in this group)
  - encoder 1: track send 1(A)
  - encoder 2: track send 2(B)
  - encoder 3: track send 3(C), push button 3: stop clip
  - encoder 4: scene select, push button 4: launch clip
  - encoder 5: track select
  - encoder 6: crossfader assign
  - encoder 7: track pan
  - encoder 8: track volume
- RAC (group 6) Rack control of macros 1 to 8
  - encoder 1: macro 1
  - encoder 2: macro 2
  - encoder 3: macro 3

Pan  
GLob

- encoder 4: macro 4
- encoder 5: macro 5
- encoder 6: macro 6
- encoder 7: macro 7
- encoder 8: macro 8
- (group 7) controls panorama for 8 tracks
- (group 8) Global controls
- encoder 1: tempo coarse, push button 1: nudge down
- encoder 2: tempo fine, push button 2: nudge up
- encoder 3: quantization, push button 3: stop scene
- encoder 4: scene select, push button 4: start scene
- encoder 5: track select, push button 5: global play
- encoder 6: cue volume, push button 6: global stop
- encoder 7: master pan, push button 7: global record
- encoder 8: master volume, push button 8: view arrangement/session

Fader/button groups:

Faders control 8 track volumes in all 8 groups (same function in each group).

Buttons:

- group 1 - launch clips (blinking LED = running clip, LED lit = clip available, LED off = no clip)
- group 2 - stop clips (LED lit = stopped clip)
- group 3 - tracks active (LED lit = active track)
- group 4 - tracks solo (LED lit = track in solo)
- group 5 - tracks arm (LED lit = record arm active)
- group 6 - tracks monitor (LED lit = monitor in or auto)
- group 7 - track control (the 8 buttons control following functions of the selected track:  
1=launch, 2=stop, 3=active, 4=solo, 5=arm, 6=monitor, 7=device view, 8=clip view)
- group 8 - tracks select (LED lit = track is selected)

## Edit mode

The edit mode allows the programming of the controls (encoders, push buttons, faders, green buttons). Start edit mode by holding shift key and press edit key. The activated edit mode is indicated by the red edit-LED. To leave edit mode please press the edit button again without shift. Press any encoder shortly to see the function behind. Setup data will be stored automatically by leaving the edit mode.

To edit any control choose the group (see controller mode), select the control by encoder 1 and then set different properties by the encoders 2 to 8 (see below).

To copy properties separately to all controls in same group, hold down the encoder push button of encoder 2,3,4,5,7 or 8 while running bar lines shown. This makes editing much faster if you want to have same functions on all controls in same group.

To assign number, channel and type by incoming midi commands (learn mode) please hold down the encoder 6 until the left display point flashes and then send any valid command (control change, program change, aftertouch, pitch bend or note). The display point will be off after receiving a valid command or pushing the encoder 6 again.

Group names can be modified in edit mode by holding shift and turning encoder 1 to 4.

---- 4 lines in the display means that the property isn't available

### Control number (Encoder 1)

Enc1....Enc8	select encoder 1 to 8 for editing
Pbt1....Pbt8	select encoder push button 1 to 8 for editing
btn1....btn8	select green button 1 to 8 for editing
FAd1....FAd9	select Fader 1 to 9 for editing

### Display scale (Encoder 2)

Encoder / fader:

OFF	no display control
Std	standard display-control (0 to 127) by the device and by external command
bPOL	bipolar display-control (-63 to 63) by the device and by external command

Green button:

OFF	no LED control
Std	standard LED control by the device and by external command
EXT	LED control only by external commands

(external control by feedback data with same commands as corresponding buttons).

## Command type (Encoder 3)

Encoder types:

CCr1	control change command in relative mode 1 (values 1/127)
CCr2	control change command in relative mode 2 (values 63/65)
CCAb	control change command in 7 bit absolute mode (values 0 to 127) <u>mostly used as standard</u>
PrGC	program change command (values 0 to 127)
CCAh	two control change commands (MSB/LSB) in 14 bit highres mode (values 0 to 16383)
Pbnd	pitch bend command 14 bit (values 0 to 16383)
AFtt	aftertouch (channel pressure) command 7 bit (values 0 to 127)

Push button / green button types:

OFF	button sends no command
note	note command
CC	control change command
PrGC	program change command
AFtt	aftertouch (channel pressure) command

(for all types: upper value = press/on, lower value = release/off)

Fader types:

CCAb	control change command in 7 bit absolute mode (values 0 to 127) <u>mostly used as standard</u>
PrGC	program change command (values 0 to 127)
Pbnd	pitch bend command 14 bit (values 0 to 16383)
AFtt	aftertouch (channel pressure) command 7 bit (values 0 to 127)

## Command mode (Encoder 4)

Encoder modes:

Acc0	no acceleration by faster turning
Acc1	low acceleration by faster turning
Acc2	middle acceleration by faster turning
Acc3	max acceleration by faster turning

Fader modes:

SnAP	sends command not before catching the last value by moving the control
JMP	jump mode, command will be send immediatly by moving the control

Push button modes:

btn	send momentary command (upper value = press, lower value = release)
toGL	send toggle command (upper value = on, lower value = off)

## Command channel (Encoder 5)

Ch01....Ch16 choose midi channel 1 to 16

## Command number (Encoder 6)

n000....n127 choose controller or note number 0 to 127 for note and CC commands  
0 to 31 (MSB) for high resolution mode (32 to 63 for LSB follows automatically)

## Lower / upper value (Encoder 7 / 8)

L000....L127 choose lower value (0 to 127) for all command types except relative modes

U000....U127 choose upper value (0 to 127) for all command types except relative modes

Set same lower and upper value for buttons with program change type to choose only one program change number by the button. Set a higher amount in lower value as upper value to have an inverted control.

## Setup mode

The setup mode allows selection of setups and routings. Further you can copy setups and group parts, reset setups (factory reset) and send/receive setup data as sysex (backup/restore). Start setup mode by holding shift key and press edit key twice. The activated setup mode is indicated by the red setup-LED. To leave setup mode please press the edit button again without shift. Press any encoder shortly to see the function behind.

To start any copy, paste, reset, send or receive function please hold down the encoder button (encoder 3 to 8) while running bar lines shown in the display.

Setup and routing selection (encoder 1 and 2) works immediately.

### Setup (Encoder 1)

SE01....SE18 select setup 1 to 18

Setup 17 and 18 are preconfigured for use with Ableton live 8/9.

### Routing (Encoder 2)

Rou0	no Midi routing
Rou1	USB in to Midi out
Rou2	Midi in to Midi out
Rou4	Midi in to USB out
Rou5	Midi in to USB out + USB in to Midi out
Rou6	Midi in to Midi out + Midi in to USB out

Routing will be stored automatically by leaving setup mode.

### Copy/Paste (Encoder 3)

CPYS	copy current setup completely
CPYn	copy group name of current encoder group
CPYE	copy encoder properties of current encoder group (not push buttons)
CPYP	copy encoder push button properties of current encoder group
CPYF	copy fader properties of current fader/button group
CPYb	copy button properties of current fader/button group

The last copies will be available in the copy memory permanently.

PStS	paste to current setup
PStn	paste group name to current encoder group
PStE	paste encoder properties to current encoder group (not push buttons)
PSTP	paste encoder push button properties to current encoder group
PSTF	paste fader properties to current fader/button group
PSTb	paste button properties to current fader/button group

### Send current setup data (Encoder 4)

**Sndc** Send selected setup as sysex data via both USB and Midi ports

### Reset current setup (Encoder 5)

**rESc** Reset selected setup to factory data

### Reset all setups (Encoder 6)

**rESA** Reset all setups to factory data

### Receive setup data (Encoder 7)

**rEc** receives setup data for one or all setups  
**rc00....rc99** shows the receive progress when receiving data for all setups.  
Abort is possible by pressing shift key.

**SE. .** shows the current setup after successfully receiving and storing of the setup data.  
**Err** shows a receive error. Try again by pressing shift and activating receive mode.

Activating receive mode by holding down encoders 7 while running bar lines shown in the display.  
Then send setup data from any sysex dumper software (e.g. Snoize librarian or MidiOX) to the device.  
It's strictly recommend to avoid sending sysex data to USB and Midi in ports simultaneously!  
The right point in lower right corner of the display shows incoming midi data.

### Send all setup data (Encoder 8)

**SndA** Send all setup data  
**Sn00....Sn99** shows the send progress in percent 0 to 99. Abort is possible by pressing shift key.  
**SE. .** shows the current setup after finished sending of the setup data.  
Data will be send as sysex dump to both USB and Midi ports

## Factory settings

Commands for setups 1 to 16, 17/18 (Ableton live track 1-8/9-16)

### Encoder 1-8:

disp mode = standard, channel = setup number, mode = Acc3, type = absolute 7 bit

disp mode = standard, mode = Acc3, type = absolute 7 bit

Group:	1	2	3	4	5	6	7	8
CC:	008-015	016-023	024-031	032-039	072-079	080-087	088-095	096-103
CC:	000-007	008-015	016-023	024-031	056-063	048-055	032-039	056-063
Chan:	13/14	13/14	13/14	13/14	14/14	13/14	13/14	13/13

### Push button 1-8:

channel = setup number, mode = button (momentary), type = note

mode = button (momentary), type = note

Group:	1	2	3	4	5	6	7	8
Note:	000-007	008-015	016-023	024-031	032-039	040-047	048-055	056-063
Note:	----	----	----	----	122-123	----	----	120-127
Chan:	----	----	----	----	14/14	----	----	13/13

### Green button 1-8:

disp mode = standard, channel = setup number, mode = button (momentary), type = note

disp mode = extern, mode = button (momentary), type = note

Group:	1	2	3	4	5	6	7	8
Note:	064-071	072-079	080-087	088-095	096-103	104-111	112-119	120-127
Note:	064-071	072-079	104-111	096-103	080-087	088-095	120-127	056-063
Chan:	13/14	13/14	13/14	13/14	13/14	13/14	14/14	13/14

### Fader 1-8:

disp mode = standard, channel = setup number, mode = jump, type = absolute 7 bit

disp mode = standard, mode = snap, type = absolute 7 bit

Group:	1	2	3	4	5	6	7	8
CC:	032-039	040-047	048-055	056-063	104-111	104-111	104-111	104-111
CC:	040-047	040-047	040-047	040-047	040-047	040-047	040-047	040-047
Chan:	13/14	13/14	13/14	13/14	13/14	13/14	13/14	13/14

**Fader 9:** disp mode = standard, channel number = setup number, mode = jump, type = absolute 7 bit

All groups: CC112

CC048, Chan=14/14

### Encoder group names:

Group:	1	2	3	4	5	6	7	8
Name:	GrP1	GrP2	GrP3	GrP4	GrP5	GrP6	GrP7	GrP8
Name:	Snd1	Snd2	Snd3	Snd4	traC	RAC	PAn	GLOb

**General setting** (effected only by factory reset all):

Setup: 01

Routing mode: 6 (midi to midi, midi to usb)







## **User manual UC4 version 2**

Mathias Fuchß Software-Entwicklung  
Op'n Idenkamp 13a  
22397 Hamburg  
Germany

[info@faderfox.de](mailto:info@faderfox.de)  
[www.faderfox.de](http://www.faderfox.de)