

Faderfox

Solid control

UC44



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 adaptor cable short (you need a midi cable for connection to other midi gear)
- CD with settings and manuals
- Quick installation guide and manual
- Sticker 98 pcs (16 x 9 mm white)

Introduction

Thank you for choosing a Faderfox controller. The UC44 is the second member of a new line called SOLID CONTROL. These devices are designed for live use on stage packed in a covered alu case with a massive alu faceplate and high quality controls. All Faderfox controllers are professionally manufactured in small series in Germany, ensuring high quality.

UC44 as big brother of the UC4 is a universal controller for all kinds of midi controllable hard- and software.

The all-rounder has 8 push-encoders each with a 2-digit-display, 16 faders (60mm) and 35 buttons. The encoders (with detents) are switchable to 32 groups which allows to control a total amount of 512 control parameters.

Various kinds of midi commands like program change, pitchbend, aftertouch and control change in relative and absolute mode with different acceleration amounts and min/max values 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 8 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 flat 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 and switchable parameters like clip launch, mute and track select. A special control surface script for Ableton Live 8/9 with all necessary mappings to control 16 tracks simultaneously is enclosed in the package.

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

Features

- **Universal controller** for all kinds of midi controllable hard- and software
- **Control surface script** for Live 8/9 is shipped with the controller
- **USB interface with bus powering** - class compliant / no driver necessary (consumption < 300mA)
- **MIDI in and out ports** with routing and merge functionality
- **8 push encoders** with detents (resolution about 30 pulses)
- **Encoder push buttons can send commands** (fully programmable)
- **32 buttons with LED** for switchable parameters
- **8 x 2-digit-display** to show encoder 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
- **32 independent groups** for encoders
- **2 independent groups** for faders/buttons
- **About 608 commands** per setup
- **8 setups with backup/restore function** contain all controller settings
- **Upgradable firmware** by simple Sysex-dump
- **Very compact and solid design** in a silver metal casing (size 290x220x55 mm, weight 1.6 kg)

System requirements

- **PC or Mac with a free USB port** (1.0 or higher) or any USB hub (connection by enclosed USB cable)
- **MIDI device** with standard midi in port (5pin DIN socket connection by enclosed adapter cable)
- **USB power adapter** (5V min 300mA) if you want to control midi gear only

Controller mode

Controller mode is the basic mode of the UC44. 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 pushing one of the gray keys and/or the black key for second functions. So there is a total of 32 encoder groups. The displays show the parameter names while holding down one of these keys. Pay attention that you can edit the parameter names in edit mode for each group separately. Hold down the red shift keys while you push a gray key to select an encoder group without sending midi data.

Turning and pushing of the encoders can send different commands which you can program in edit mode. 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 down the red shift key while you turn the encoders to have a precise control without acceleration.

You can also select a second function/group for the faders and buttons by pushing the blue key. 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 sent immediately.

Hold down shift key while you move a fader for faderpos-indication by the green LEDs without sending data. That is a good way to catch the fader values of feedback data.

Send out a snapshot of all faders by holding shift and press green button 16 to sync the faders in the controller and your application.

The gray and 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 red LED between the midi sockets shows incoming and outgoing midi data. It flashes bright when the device transmits or receives controller data. Low flashing indicates midi clock or other midi data.

Ableton Live mode

The setup 8 is preconfigured for using with Live 8/9. The displays show special parameter names for the encoders (see below). Pay attention that a track select in Live doesn't reflect to the controller.

Encoder assignments:

First function (parameters of the currently selected track):

Encoder 1		Rack control of macros 1 (encoder) and 5 (push button)
Encoder 2		Rack control of macros 2 (encoder) and 6 (push button)
Encoder 3		Rack control of macros 3 (encoder) and 7 (push button)
Encoder 4		Rack control of macros 4 (encoder) and 8 (push button)
Encoder 5		Track send 1 (A), push to set the send amount to full or zero
Encoder 6		Track send 2 (B) , push to set the send amount to full or zero
Encoder 7		Track send 3 (C) , push to set the send amount to full or zero
Encoder 8		Scene select, push to launch selected scene

Second function (global parameters):

Encoder 1	⏪	Tempo coarse, push button for nudge down
Encoder 2	⏩	Tempo fine, push button for nudge up
Encoder 3	⏸	Quantization
Encoder 4		not used
Encoder 5	⏪	Cue volume, push button for global play
Encoder 6	⏸	Master panorama, push button for global stop
Encoder 7	⏸	Master volume, push button for global record
Encoder 8	⏪	Scene select, push to launch selected scene

Fader/Button assignments:

First function:

Fader 1 to 16	Track volume of track 1 to 16
Gray button 1 to 16	Track select of track 1 to 16
Green button 1 to 16	Clip launch of track 1 to 16 in currently selected scene

Second function:

Fader 1 to 16	Track volume of track 1 to 16
Gray button 1 to 16	Track select of track 1 to 16
Green button 1 to 16	Track activate of track 1 to 16

Edit mode

The edit mode allows the programming of the controls (encoders, push buttons, faders, buttons). Start and leave edit mode by holding down shift key and press the black edit key. The activated edit mode is indicated by blinking yellow Edit-LED. All data will be stored in the currently selected setup automatically by leaving the edit mode.

To edit any control choose the encoder/fader 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 to 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 encoders 5 and 6 until the green LED on encoder 5 blinks and then send any valid command (control change, program change, aftertouch, pitch bend or note) to the controller. Press shift key to leave the learn mode.

Parameter names can be modified in edit mode while holding down the gray group key:
push the encoder to select the digit (the decimal point in display shows which digit is selected)
turn the encoder to choose the character shown in the selected digit

Hold down the red shift key and turn or push encoders to send Midi commands in edit mode. However Faders and green/gray buttons always send Midi commands in edit mode.

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

Control number (Encoder 1)

Ec	/ 0 1... 08	select encoder 1 to 8 for editing
Gb	/ 0 1... 16	select green button 1 to 16 for editing
Sb	/ 0 1... 16	select gray (select) button 1 to 16 for editing
Pb	/ 0 1... 08	select encoder push button 1 to 8 for editing
Fd	/ 0 1... 16	select fader 1 to 16 for editing

Display scale (Encoder 2)

Encoder scales:

0F	no display control
5d	standard display-control (0 to 99) by the device and by external command
dr	directly display-control (0 to 127) by the device and by external command
bP	bipolar display-control (-63 to 64) by the device and by external command (green LED shows the sign so -63...-01 = LED on)
tP	tempo coarse display for Ableton Live (display follows pitchbend data on channel 13)
tF	tempo fine display for Ableton Live (display follows pitchbend data on channel 13)
9n	quantization display for Ableton Live (values 0...13)
0n	on / off (values greater than 0 = on)

(changing point position per step for high resolution mode)

Button scales:

Of no LED control (activates the encoder group changing on gray buttons)

Sc standard LED control by the device and by external command

Et LED control only by external commands

External control by feedback data with same commands as corresponding buttons.

For standard and external scales on gray keys hold down shift key and press gray key to select the encoder group.

Command type (Encoder 3)

Encoder types:

r1 control change command in relative mode 1 (values 1/127)

r2 control change command in relative mode 2 (values 63/65)

cc control change command in 7 bit absolute mode (values 0 to 127) mostly used as standard

pc program change command (values 0 to 127)

ch two control change commands (MSB/LSB) in 14 bit highres mode (values 0 to 16383)

Pb pitch bend command 14 bit (values 0 to 16383)

At aftertouch (channel pressure) command 7 bit (values 0 to 127)

nt note commands (turn clockwise = note on, turn anti-clockwise = note off)

Button types:

Of button sends no command

nt note command

cc control change command

pc program change command

At aftertouch (channel pressure) command
(for all types: upper value = press/on, lower value = release/off)

Fader types:

cc control change command in 7 bit absolute mode (values 0 to 127) most used standard-mode

pc program change command (values 0 to 127)

Pb pitch bend command 14 bit (values 0 to 16383) Resolution 7 bit !

At aftertouch (channel pressure) command 7 bit (values 0 to 127)

nt note command (upper fader half = note on, lower fader half = note off)

Command mode (Encoder 4)

Encoder modes:

A0	no acceleration by faster turning
A1	low acceleration by faster turning
A2	middle acceleration by faster turning
A3	max acceleration by faster turning

Fader modes:

Sn	snap mode, sends command not before catching the last value by moving the control
JP	jump mode, command will be sent immediately by moving the control

Button modes:

bt	send momentary command (upper value = press, lower value = release)
tG	send toggle command (upper value = on, lower value = off)

Command channel (Encoder 5)

01...16 choose midi channel 1 to 16

Command number (Encoder 6)

00...*27 choose controller or note number 0 to 127 for note and CC commands
(green LED indicates hundred digit)
0 to 31 (MSB) for high resolution mode (32 to 63 for LSB follows automatically)

Lower / upper value (Encoder 7 / 8)

00...*27 choose lower value (0 to 127) for all command types except relative modes
00...*27 choose upper value (0 to 127) for all command types except relative modes
(green LED indicates hundred digit, LED = on = value + 100)

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.

lower value = note press velocity
upper value = note release velocity

Setup mode

The setup mode allows selection of setups and routings. Further you can copy and fill setups and group parts, reset setups (factory reset) and send/receive setup data as sysex (backup/restore).

Start and leave setup mode by holding down red shift key and press blue setup key. The activated setup mode is indicated by blinking yellow setup-LED.

To start any special, 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) take effect at once.

Hold down the red shift key and turn or push encoders to send Midi commands in setup mode. Faders and green/gray buttons always send Midi commands in setup mode.

Setup (Encoder 1)

01...08 select setup 1 to 8

Setup 1 to 6 work with standard CC commands on 2 Midi channels each.

(setup 1 = channel 1/2.... setup 2 = channel 3/4....setup 6 = channel 11/12)

Setup 7 works with standard CC commands, the 16 Midi channels are corresponding to the

fader/button/group.(fader/button/group 1 = channel 1....fader/button/group 16 = channel 16)

Setup 8 is preconfigured for use with Ableton live 8/9.

Routing (Encoder 2)

r0	no Midi routing
r1	USB in to Midi out
r2	Midi in to Midi out
r4	Midi in to USB out
r5	Midi in to USB out + USB in to Midi out
r6	Midi in to Midi out + Midi in to USB out

Routing will be stored automatically by leaving setup mode.

Special (Encoder 3)

(works only on control types selected by encoder 4!)

16	set controls to channels 1 to 16 in ascending order (group/fader/button# = channel#)
8A	set controls to channels 1 to 8 in ascending order (group/fader/button 1,8 = channel 1; group/fader/button 2,9 = channel 2....)
8b	set controls to channels 1 to 8 in ascending order (group/fader/button 1,2 = channel 1; group/fader/button 3,4 = channel 2....)
4A	set controls to channels 1 to 4 in ascending order (group/fader/button 1,5,9,13 = channel 1; group/fader/button 2,6,10,14 = channel 2....)
4b	set controls to channels 1 to 4 in ascending order (group/fader/button 1,2,3,4 = channel 1; group/fader/button 5,6,7,8 = channel 2....)

Copy (Encoder 4)

SE	select current setup
nA	select parameter names of current encoder group
Ec	select encoder properties of current encoder group (not push buttons)
Pb	select encoder push button properties of current encoder group
Fd	select fader properties of current fader/button group
Gb	select green button properties of current fader/button group
Sb	select gray (select) button properties of current fader/button group

Copies always the whole setup which is currently selected.

The last copied setup and reference group numbers will be available in the copy-memory permanently.

Check setup and group numbers of the last copy by holding down the encoder shortly.

Paste (Encoder 5)

(works only on control types selected by encoder 4!)

CU	paste to the current selected setup or group
du	duplicate (paste one group to all groups in the current selected setup)
AL	all (paste all groups to the current selected setup)

Reset setup (Encoder 6)

CU	Reset current selected setup to factory settings
AL	Reset all 8 setups to factory settings (Counting in the display shows the progress)

Send setup data (Encoder 7)

CU	Send currently selected setup as sysex data via both USB and Midi ports
AL	Send all setups as sysex data via both USB and Midi ports (Counting in the display shows the progress; abort by pressing the red shift key)

Receive setup data (Encoder 8)

00	blinking display > receive mode is active and device is ready to receive sysex data
01...99	counting shows the progress while receiving valid sysex data
Er	shows a receive error. Try again by pressing shift and reactivating receive mode.

Activate receive mode by holding down encoders 8 while running bar lines shown in the display.

When the display shows a blinking '00', start sending setup data from any sysex dumper software:

Bome 'Send SX' for Windows (<http://www.bome.com/products/sendsx>) or

Snoize 'SysEx Librarian' for Mac (<http://www.snoize.com/SysExLibrarian/>)

Abort the process by pressing red shift key. The red data LED shows incoming Midi data.

It's strictly recommend to avoid sending sysex data to USB and Midi in ports simultaneously!

Factory settings

settings in setups 1 to 6:

- encoders (1st function):
 - group 1: CC000 to CC007
 - group 2: CC008 to CC015
 - group 3: CC016 to CC023
 - group 4: CC024 to CC031
 - group 5: CC032 to CC039
 - group 6: CC040 to CC047
 - group 7: CC048 to CC055
 - group 8: CC056 to CC063
 - group 9: CC064 to CC071
 - group 10: CC072 to CC079
 - group 11: CC080 to CC087
 - group 12: CC088 to CC095
 - group 13: CC096 to CC103
 - group 14: CC104 to CC111
 - group 15: CC112 to CC129
 - group 16: CC120 to CC127
- encoder push buttons (1st function):
 - group 1: CC000 to CC007
 - group 2: CC008 to CC015
 - group 3: CC016 to CC023
 - group 4: CC024 to CC031
 - group 5: CC032 to CC039
 - group 6: CC040 to CC047
 - group 7: CC048 to CC055
 - group 8: CC056 to CC063
 - group 9: CC064 to CC071
 - group 10: CC072 to CC079
 - group 11: CC080 to CC087
 - group 12: CC088 to CC095
 - group 13: CC096 to CC103
 - group 14: CC104 to CC111
 - group 15: CC112 to CC129
 - group 16: CC120 to CC127
- encoders (2nd function):
 - group 1 to 16: CC000 to CC007
- encoder push buttons (2nd function):
 - group 1 to 16: CC008 to CC015
- faders (1st function)
 - CC016 to CC031
- faders (2nd function)
 - CC064 to CC079
- green buttons (1st function)
 - CC032 to CC047
- green buttons (2nd function)
 - CC080 to CC095
- gray buttons (1st function)
 - CC048 to CC063
- gray buttons (2nd function)
 - CC048 to CC063

- channels in setups 1 to 6:
 - setup 1: encoder 1st function = 01, encoder 2nd function = 02, faders + buttons: 02
 - setup 2: encoder 1st function = 03, encoder 2nd function = 02, faders + buttons: 04
 - setup 3: encoder 1st function = 05, encoder 2nd function = 02, faders + buttons: 06
 - setup 4: encoder 1st function = 07, encoder 2nd function = 02, faders + buttons: 08
 - setup 5: encoder 1st function = 09, encoder 2nd function = 02, faders + buttons: 10
 - setup 6: encoder 1st function = 11, encoder 2nd function = 02, faders + buttons: 12

settings in setups 7:

- encoders (1st function):
 - group 1 to 16: CC070 to CC077
- encoders (2nd function):
 - group 1 to 16: CC078 to CC085
- encoder push buttons (1st function):
 - group 1 to 16: CC086 to CC093
- encoder push buttons (2nd function):
 - group 1 to 16: CC094 to CC101
- faders (1st function)
 - CC007
- faders (2nd function)
 - CC007
- green buttons (1st function)
 - CC016
- green buttons (2nd function)
 - CC017
- gray buttons (1st function)
 - CC018
- gray buttons (2nd function)
 - CC018

- channels in setups 7:
 - encoder/push button channel numbers corresponds to encoder group numbers
(all encoders/push buttons in group 1 = channel 1, all encoders/push buttons in group 2 = channel 2...)
 - fader/button channel numbers corresponds to fader number
(fader 1 = channel 1, fader 2 = channel 2...)

setting in setups 1 to 7:

- encoders in standard disp mode 'Sd', absolute mode 'CC', acceleration 3 'A3',
lower value = 0, upper value = 127
- faders in absolute mode 'CC', type = jump 'JP', lower value = 0, upper value = 127
- encoder push buttons in standard disp mode 'Sd', absolute mode 'CC', toggle mode 'tG',
lower value = 0, upper value = 127
- green buttons in standard disp mode 'Sd', absolute mode 'CC', toggle mode 'tG',
lower value = 0, upper value = 127
- gray buttons in disp mode off 'OF', absolute mode 'CC', button mode 'bt',
lower value = 0, upper value = 127

settings in setups 8 (live setup):

- encoders (1st function):
 - group 1 to 16: encoder 1 to 4 = CC048 to CC051 (channel 13)
 - encoder 5 to 7 = CC056 to CC059 (channel 14)
- encoders (2nd function):
 - group 1 to 16: encoder 1 to 3 = CC056 to CC058, encoder 4 = CC127,
 - encoder 5 to 7 = CC061 to CC063, encoder 8 = CC059 (encoder 1 to 8 = channel 13)
- encoder push buttons (1st function):
 - group 1 to 16: encoder 1 to 4 = CC052 to CC055 (channel 13),
 - encoder 5 to 7 = CC056 to CC058 (channel 14), encoder 8 = note123 (channel 13)
- encoder push buttons (2nd function):
 - group 1 to 16: encoder 1 to 2 = note120 to note121, encoder 3 to 4 = note000 to note001,
 - encoder 5 to 7 = note124 to note126, encoder 8 = note123 (encoder 1 to 8 = channel 13)
- faders (1st function)
 - fader 1 to 8 = CC040 to CC047, fader 9 to 16 = CC040 to CC047
 - (fader 1 to 8 = channel 13, fader 9 to 16 = channel 14)
- faders (2nd function)
 - fader 1 to 8 = CC040 to CC047, fader 9 to 16 = CC040 to CC047
 - (fader 1 to 8 = channel 13, fader 9 to 16 = channel 14)
- green buttons (1st function)
 - button 1 to 8 = note064 to note071, button 9 to 16 = note064 to note071
 - (button 1 to 8 = channel 13, button 9 to 16 = channel 14)
- green buttons (2nd function)
 - button 1 to 8 = note004 to note011, button 9 to 16 = note004 to note011
 - (button 1 to 8 = channel 13, button 9 to 16 = channel 14)
- gray buttons (1st function)
 - button 1 to 8 = note056 to note063, button 9 to 16 = note056 to note063
 - (button 1 to 8 = channel 13, button 9 to 16 = channel 14)
- gray buttons (2nd function)
 - button 1 to 8 = note056 to note063, button 9 to 16 = note056 to note063
 - (button 1 to 8 = channel 13, button 9 to 16 = channel 14)

- encoders 1 to 7 in standard disp mode 'Sd', absolute mode 'CC', acceleration 3 'A3',
lower value = 0, upper value = 127
- encoders 8 in direct disp mode 'dr', relative 1 mode 'r1', acceleration 0 'A0'
- faders in absolute mode 'CC', type = jump 'JP', lower value = 0, upper value = 127
- encoder push buttons 1 to 7 (1st function) in standard disp mode 'Sd', absolute mode 'CC',
toggle mode 'tG', lower value = 0, upper value = 127
- encoder push button 8 (1st function) in extern disp mode 'Et', note mode 'nt', button mode 'bt',
lower value = 0, upper value = 127
- encoder push buttons (2nd function) in extern disp mode 'Et', note mode 'nt', button mode 'bt',
lower value = 0, upper value = 127
- green buttons in extern disp mode 'Et', note mode 'nt', button mode 'bt', lower value = 0,
upper value = 127
- gray buttons in disp mode off 'OF', note mode 'nt', button mode 'bt', lower value = 0,
upper value = 127

General setting (effected only by factory reset all):

Setup: 01
Routing mode: r6 (Midi to Midi, Midi to USB)



User manual UC44 version 2

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