

Faderfox

Solid control

PC44



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
- Manual
- Sticker 98 pcs (16 x 9 mm white)

Introduction

Thank you for choosing a Faderfox controller. The PC44 is the third 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.

PC44 as big brother of the PC4 is a universal controller for all kinds of midi controllable hard- and software.

The device has 68 standard pots with rubber knobs designed in a 8 x 8 matrix + 4 big knobs, 8 keys and one push-encoder. Various kinds of midi commands like control change, pitchbend, aftertouch and program change are possible. All properties are fully programmable on the devices very fast and easy for each control separately.

Of course you can assign the pots and keys to any of these commands by learning incoming midi commands like software it does. The pots work with standard resolution of 7 bit to have full compatibility to any software and hardware instruments, effects and DAW's. Use the internal 64 setups to save your individual settings. Backup and restore of all settings by sysex dumps is 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.

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
- **USB interface with bus powering** - class compliant / no driver necessary (consumption < 100mA)
- **MIDI in and out ports** with routing and merge functionality
- **68 pots** with rubber knobs and standard midi resolution of 7bit
- **Fast control assign** by incoming midi commands like control change (CC), pitch bend, program change
- **Switchable Snap function** for all pots to avoid value jumps
- **Switchable Lock function** for all pots to show a controls value permanently
- **1 push encoders** with detents (resolution about 30 pulses)
- **8 buttons with LED** for switchable parameters
- **4-digit-display** to show values and programming data
- **14 bit high resolution encoder mode** for sensitive parameters
- **Programmable value ranges** with min/max values
- **Data feedback** for all controls 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, duplicate and channel sets
- **About 78 commands** per setup
- **64 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/out port (connection by enclosed MIDI adaptor cable)
- **USB power adapter** (5V min 100mA) if you want to control midi gear only

Controller mode

Controller mode is the basic mode of the PC44. Here the pots, encoder and buttons are used to control any parameters in your soft- or/and hardware by standard midi commands like CC and notes.

The pots 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. The last value and two arrows in the display show the necessary pot movements to catch the values.

Jump mode works like a standard controller so the data will be sent immediately.

Switch between the two modes (snap and jump) by the blue button.

Hold down shift while you turn a pot to suppress data sending temporarily. This is also useful to catch the last value exactly.

Turning and pushing of the encoder can send different commands. You can see the numerical value in the display too. A programmed acceleration gives a better feeling for the encoder so you can go from min to max value easily. Hold down the red shift key while you turn the encoder to have a precise control without acceleration.

Press the lock button (black button) to have the value display locked to the last moved pot/encoder.

The gray and green buttons can be programmed to various modes like the pots and encoder 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.

Press both black and blue keys to send a snapshot of all pots. A flashing red light indicates successful sending.

Edit mode

The edit mode allows the programming of the controls (pots, encoder and 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 you have to choose the control number first. There are two ways to do so:

1. press button 1 (the left green button) and then select the control by the encoder or
2. holding down the black edit button while you move the wanted control

Then you can set different properties by selecting them with button 2 to 8 (see below) and changing with the encoder.

To copy properties separately to all controls of same type (pots or buttons), hold down the button 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.

To assign number, channel and type by incoming midi commands (learn mode) please press the encoder. A small point on the right display shows active learn-mode. On this way you can learn any valid command (control change, program change, aftertouch, pitch bend or note) to the currently selected control (see with button 1). Press the encoder again to leave the learn mode.

Hold down the red shift key and press any of the lower 8 buttons or turn/push the encoder to send Midi commands in edit mode. However pots always send Midi commands in edit mode.

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

Control number (Button 1)

Pt0 1...68 select pot 1 to 68 for editing

Enc select encoder for editing

Pbt select encoder push button for editing

btn 1...8 select green/gray button 1 to 8 for editing

You can see the control numbers on the faceplate in small circles next to the controls.

Display scale (Button 2)

Pot / encoder scales:

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
(for high resolution mode running bar lines per step on right display)

Button scales:

OFF no LED control

Std standard LED control by the device and by external command

EHL LED control only by external commands

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

Command type (Button 3)

Pot types:

| | |
|-------------------|--|
| <code>notE</code> | note command (note on for right side, note off for left side) |
| <code>CC</code> | control change command in 7 bit absolute mode (values 0 to 127) <u>most used standard-mode</u> |
| <code>PrCC</code> | program change command (values 0 to 127) |
| <code>Pbnd</code> | pitch bend command 14 bit (values 0 to 16383) Resolution 7 bit ! |
| <code>AFtt</code> | aftertouch (channel pressure) command 7 bit (values 0 to 127) |

Encoder types:

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

Button types:

| | |
|-------------------|---------------------------------------|
| <code>notE</code> | note command |
| <code>CC</code> | control change command |
| <code>PrCC</code> | program change command |
| <code>AFtt</code> | aftertouch (channel pressure) command |

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

Command mode (Button 4)

Pot modes:

| | |
|-------------------|---|
| <code>JUMP</code> | jump mode, command will be sent immediately by moving the control |
| <code>SNAP</code> | snap mode, sends command not before catching the last value by moving the control |

Encoder modes:

| | |
|-------------------|---------------------------------------|
| <code>Acc0</code> | no acceleration by faster turning |
| <code>Acc1</code> | low acceleration by faster turning |
| <code>Acc2</code> | middle acceleration by faster turning |
| <code>Acc3</code> | max acceleration by faster turning |

Button modes:

| | |
|-------------------|---|
| <code>btN</code> | send momentary command (upper value = press, lower value = release) |
| <code>toGL</code> | send toggle command (upper value = on, lower value = off) |

Command channel (Button 5)

Ch0 1... 16 choose midi channel 1 to 16

Command number (Button 6)

n000... 127 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 (Button 7 / 8)

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

U000... 127 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.

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 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 button 3 to 8 while running bar lines shown in the display.

Setup and routing selection (buttons 1 and 2) take effect at once.

Hold down the red shift key and press any of the lower 8 buttons or turn/push the encoder to send Midi commands in setup mode. However pots always send Midi commands in setup mode.

Setup (Button 1)

SE0 1...64 select setup 1 to 64

Routing (Button 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.

Special (Button 3)

dUc8 duplicate all pots/buttons of column 1 (left column) to columns 2 to 8 (8 track mode)
dUc4 duplicate all pots/buttons of columns 1/2 to columns 3/4, 5/6 and 7/8 (4 track mode)
dUc2 duplicate all pots/buttons of columns 1/2/3/4 to columns 5/6/7/8 (2 track mode)
dUr8 duplicate all pots of row 1 to rows 2 to 8 (8 track mode)
dUr4 duplicate all pots of rows 1/2 to rows 3/4, 5/6 and 7/8 (4 track mode)
dUr2 duplicate all pots of rows 1/2/3/4 to rows 5/6/7/8 (2 track mode)

[hc8 set channel numbers of all pots/buttons in ascending order to columns (8 track mode)
(column 1= channel#, column 2= channel# + 1, column 3= channel# + 2,...)

[hc4 set channel numbers of all pots/buttons in ascending order to columns (4 track mode)
(columns 1/2 = channel#, columns 3/4 = channel# + 1, columns 5/6 = channel# + 2,...)

[hc2 set channel numbers of all pots/buttons in ascending order to columns (2 track mode)
(columns 1/2/3/4 = channel#, columns 5/6/7/8 = channel# + 1)

[chr8] set channel numbers of all pots in ascending order to rows (8 track mode)
(row 1= channel#, row 2= channel# + 1, row 3= channel# + 2,...)

[chr4] set channel numbers of all pots in ascending order to rows (4 track mode)
(rows 1/2 = channel#, rows 3/4 = channel# + 1, rows 5/6 = channel# + 2,...)

[chr2] set channel numbers of all pots in ascending order to rows (2 track mode)
(rows 1/2/3/4 = channel#, rows 5/6/7/8 = channel# + 1)

Copy (Button 4)

[COPY] Copies the current selected setup
The last copied setup will be available in the copy-memory permanently.

Paste (Button 5)

[PASTE] paste to the current selected setup

Reset setup (Button 6)

rESC Reset current selected setup to factory settings

rESA Reset all 64 setups to factory settings

Send setup data (Button 7)

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

SndA 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 (Button 8)

rEc
rc00 receive mode is active and device is ready to receive sysex data

rc01...99 counting shows the progress while receiving valid sysex data

Err shows a receive error. Try again by pressing shift and reactivating receive mode.

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

When the display shows 'rc00', 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!



User manual PC44 version 1

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

info@faderfox.de
www.faderfox.de