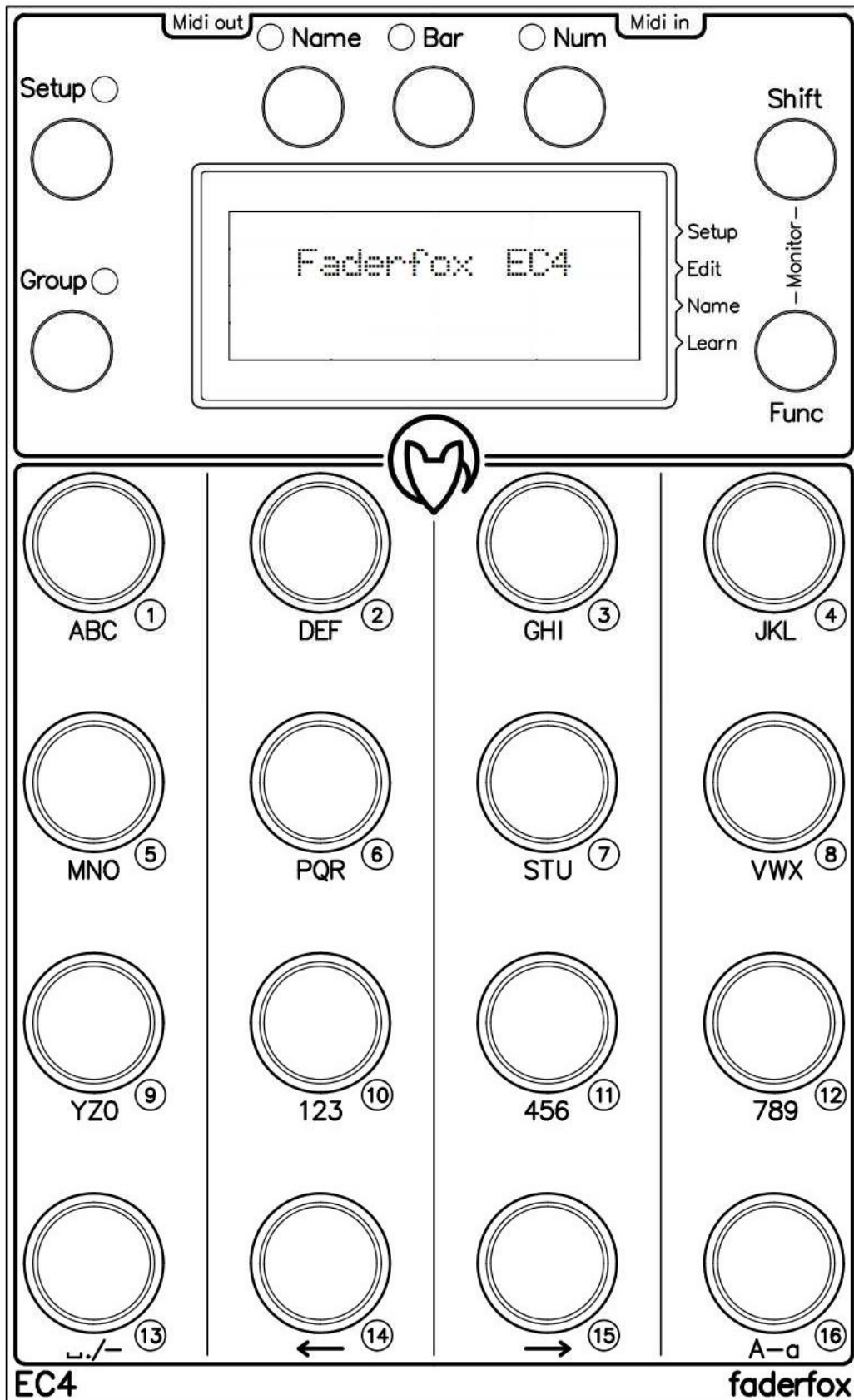


# micromodul EC4



## 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 Type B (with 3.5mm angled jack plug)
- Manual / Quick start guide

## Introduction

Thank you for choosing the Faderfox controller. Being one of the world's smallest controllers, it is designed expertly for studio and live use. All Faderfox controllers are professionally hand crafted in Germany, ensuring high quality for every unit.

### **EC4 is a universal controller for all kinds of MIDI controllable hard- and software.**

The all-rounder has 16 gridless push-encoders, 7 function buttons and a large OLED-display. Encoders are switchable to 16 groups that allow controlling a total amount of 512 control parameters per setup. The display shows the current values of all controls or editable encoder/group/setup names.

Various kinds of MIDI commands are possible, like program change, pitch bend, aftertouch, NRPN, and control change in relative and absolute mode with different acceleration amounts. All these properties are easily and efficiently programmable on the device, allowing personalized customisation for each separate control.

The encoders can work as high resolution 14bit controllers too (NRPN, control change or pitch bend). This makes them suitable for sensitive parameters like resonating filter cutoffs, etc.

Encoder push buttons are fully programmable as well.

Use the internal 16 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.**

Thus, 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, devices, send amounts, and track panning. A special control surface script for Ableton Live, including all necessary mappings, is enclosed in the package.

**Working with this amazing power box will prove to you that it is a trustworthy, reliable, and invaluable asset to your productions...**

## Features

- **Universal controller** for all kinds of midi controllable hard- and software
- **iPad compatible**
- **Control surface script** for Ableton Live with extended display control
- **USB interface** - class compliant / bus powered / no driver necessary (consumption < 500mW)
- **MIDI in/out ports minijack sockets type B** with routing and merge functionality (no power capability !)
- **16 gridless push encoders** - resolution = 72 pulses per revolution
- **4 x 20 character OLED-display** to show control values (numeric/bar), names and programming data
- Names for encoders, groups and setups are editable (4 characters per name)
- **14 bit high resolution encoder mode** for sensitive parameters
- **Programmable value ranges** with min/max values
- **Data feedback** avoid value jumps
- **Encoders/push buttons fully programmable in the device** by channel, type, number, mode etc.
- **Different command types** like CC, pitch bend, NRPN, program change and notes (no Sysex !)
- **Advanced programming functions** like copy, paste and fill
- **16 independent groups per setup** with each 16 encoders/push buttons (512 commands per setup)
- **Learn function** for fast assignment to incoming MIDI commands
- **15 Preset memories** for initializing of all controls
- **Snapshot function** to send all control commands within a group with only one click
- **Link function** to link up to 16 encoders for multiple commands
- **16 setups with backup/restore function** contain all controller settings incl. names
- **Very compact design** in a black casing (180x105x70 mm, 350 g)

## System requirements

- **PC, Mac or iPad with a free USB port** (1.0 or higher) or any USB hub (connection by inclosed USB cable)
- **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 external midi gear

## Controller mode

Controller mode is the most basic mode of the EC4. This is where the encoders are used to control parameters in your software/hardware through standard MIDI commands like CC, NRPN or notes.

First, choose the encoder setup and/or group by pressing one of the grey SETUP or GROUP keys. The display will show 16 setup or group names in a 4x4 matrix, with the currently selected setup/group name blinking. Selecting is finished by pressing one of the associated encoders. After selection, the display comes back to show the 16 encoder names or values. Leave setup/group selection without a new select by pressing one of the green keys. The last group selection will be stored for each setup separately.

The device offers 16 setups x 16 groups x 16 encoders/push buttons which is a total of 8192 independent encoder programmings.

The encoders can send different commands which you can program in edit mode.

After turning an encoder, you can see the value in bar or numerical format on the display for a short while. Select the preferred value display (bar or numerical) by pressing SHIFT + BAR or NUM key. Choose SHIFT + NAME to suppress the automatic value display.

A programmable acceleration and various step-modes gives a better feeling with the encoders so you can go from min to max value easily. Turn slowly or hold the red shift key while you turn the encoders to have a precise control without acceleration.

To see all values instead the names press the green BAR or NUM key. The green NAME key switch back to the encoder names display. Various different display modes for the value displays are individually programmable in the edit mode for each encoder.

The status of the push buttons can be shown by a star (\*) right to the names / values.

Any incoming MIDI feedback data will reflect to the encoders and displays. So the encoders can work without value jumps if your software/hardware is able to send back remote data.

## Monitor mode

Monitor mode is a tool to show incoming and outgoing MIDI data separately for each of the four ports.

You can check right programmings and external connections with this mode very easily.

Hold SHIFT and press the blue FUNC button to get it on the display. Switch off with same keys.

## Presets / snapshot

There is also a new preset functionality which allows to store and send values of all controls (encoders and push buttons). That's great for initialization. You can store a total of 15 presets in the device.

Store a preset by holding down NAME button + push the desired encoder 1...15.

Set the preset values to the controls by holding down NUM button + push the desired encoder 1...15.

Send a snapshot (values of all encoder and push buttons in toggle mode) by NUM button + encoder 16.

Presets include only the control values and not the commands itself. That means you can use different presets for each setup/group or one preset for different setups/groups.

## Ableton Live Setups

Setup 15 is preconfigured for using with Ableton Live 11.. and the available control surface script 'Faderfox Universal 2' to control the first 16 tracks.

Setup 16 is preconfigured for using with older Ableton Live versions and the available control surface script 'Faderfox Universal' to control the first 16 tracks.

There are used 12 different groups. The display shows special group and encoder names.  
For Universal 2 script encoder names and all additional displays will be provided by the script.  
 There you will see device parameters in longer form by turning or holding down the encoders.  
 You can use this script with setups 13...16. Set encoder names to '----' else the script can't write the names.

Encoder groups:



controls VOLUME parameter for 16 tracks (set 0dB by push buttons)  
 controls PAN parameter for 16 tracks (set center by push buttons)  
 controls 16 parameters of selected device (setup 15) (set default by push buttons shortly)  
 8 MACROs of first rack + VOLUME track 1...16 (setup 16) (set 0 by push buttons)

Press push buttons in device groups shortly to set the parameters to default value.  
 Press push buttons in device groups about 1/2sec to see the parameters in long form.  
 16 global push button functions in device groups (setup 15) while holding shift key:

first track	previous track	next track	master track
first device	previous device	next device	last device
Best of param.bank	previous param.bank	next param.bank	last param.bank
device active	device lock	show device	track/clip view

(current selected track/device/bank are displayed while holding down shift key)



controls parameter SEND A for 16 tracks (set value 0 by push buttons)  
 controls parameter SEND B for 16 tracks (set value 0 by push buttons)  
 controls parameter SEND C for 16 tracks (set value 0 by push buttons)  
 controls parameter SEND D for 16 tracks (set value 0 by push buttons)



controls parameter SEND A, SEND B, PAN, and VOLUME for tracks 1..4  
 push buttons control MONITOR, MUTE, SOLO and ARM for tracks 1..4



controls parameter SEND A, SEND B, PAN, and VOLUME for tracks 5..8  
 push buttons control MONITOR, MUTE, SOLO and ARM for tracks 5..8



controls parameter SEND A, SEND B, PAN, and VOLUME for tracks 9..12  
 push buttons control MONITOR, MUTE, SOLO and ARM for tracks 9..12



controls parameter SEND A, SEND B, PAN, and VOLUME for tracks 13..16  
 push buttons control MONITOR, MUTE, SOLO and ARM for tracks 13..16

Groups 13 to 16 are not used in the factory settings and are therefore available for free use.

**Special fixed commands (Sysex)**

There are some specials available for script programmings which are based on sysex commands:

- Setup and group selects send the choosen number
- Shift button sends status press / release
- 4 user keys send status press / release (hold down blue FUNC key and press encoder 1,5,9,13)  
 used with Ableton script (press shortly > on, press about 1sec > off, see Ableton status bar):
  - User 1: temporary parameter display for devices (by turning encoders in device groups)
  - User 2: permanent parameter display for devices (by holding down encoders in device groups)
  - User 3: defaults for device parameters (by pressing encoders in device groups shortly)
  - User 4: global control in device groups (by holding down shift key in device groups)
- Various commands for remote control of setup/group select and display  
 (you will find description files for this on the product site)
- Shift + pushbuttons send 32 different commands for status press / release

## Setup mode

Setup mode allows adjustment of general settings. These include different MIDI routings, display brightness, screensaver and view option for note commands. Additionally, you can copy setups and groups, reset setups (factory reset), and send/receive setup data as SysEx (backup/restore).

Start or exit setup mode by holding the blue FUNC key and pressing encoder 4 quickly.

A small arrow on the first line of the right side of the screen lights up to show active setup mode.

Setup data will be stored automatically.

Routing and brightness take effect immediately.

To open copy, paste, reset, send or receive menus, simply press the corresponding encoder buttons quickly.

## Routing (turn Encoder 2)

Merging of received MIDI data to controller data.

Rout: no	no MIDI routing
Rout: UM	USB In to MIDI Out
Rout: MM	MIDI In to MIDI Out
Rout: MU	MIDI In to USB Out
Rout: MUUM	MIDI In to USB Out + USB In to MIDI Out
Rout: MMU	MIDI In to MIDI Out + MIDI In to USB Out

## Display brightness (turn Encoder 6)

Disp: 00%...99% display brightness

## Send setup data (press Encoder 10 quickly)

Options menu:



Send current setup (hold encoder 4 while running bar lines shown)

Send all 16 setups (hold encoder 8 while running bar lines shown)

Cancel options menu (press encoder 16 quickly)

The percentage counter in the display shows the progress.

Abort the process is possible by pressing encoder 16 shortly.

Data will be send as SysEx dump to both USB and MIDI ports

## Receive setup data (press Encoder 14 quickly)



Shows the progress when receiving data

Wrong SysEx file or other receive problems

Abort is possible by pressing encoder 16 shortly.

After activation of receive mode send setup data from any SysEx dumper software to the device.

(e.g. Snoize librarian or MidiOX)

It's strictly recommended to avoid sending SysEx data to USB and MIDI in ports simultaneously!

The percentage counter in the display shows incoming MIDI data.

Of course you can load data from older software versions too.



### Reset setup (press Encoder 4 quickly)

Factory reset of one or all setups. Resets all names too. Resetting all setups takes a few seconds !

Options menu:



```
Reset current setup
Reset all setup
Cancel
```

Reset current setup (hold encoder 4 while running bar lines shown)

Reset all 16 setups (hold encoder 8 while running bar lines shown)

Cancel options menu (press encoder 16 quickly)

### Copy group/setup (press Encoder 8 quickly)

Options menu:



```
Copy current group
Copy current setup
Cancel
```

Copy current group (hold encoder 4 while running bar lines shown)

Copy current setup (hold encoder 8 while running bar lines shown)

Cancel options menu (press encoder 16 quickly)

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

### Paste group/setup (press Encoder 12 quickly)

Options menu:



```
Paste group
Paste setup
Cancel
```

Paste to current group (hold encoder 4 while running bar lines shown)

paste to current setup (hold encoder 8 while running bar lines shown)

Cancel options menu (press encoder 16 quickly)

### Miscellaneous functions: Screensaver (turn Encoder 15) / Note view (turn Encoder 16)



```
Misc:501..599
Misc:500
```

Screensaver activation time in minutes

Screensaver off

Next to the screensaver time:

- Shown note symbol
- No note symbol

Notes are shown as names in edit and monitor mode

Notes are shown as numbers in edit and monitor mode

## Edit mode

The edit mode allows the programming of the encoders/push buttons through various properties. Start or exit edit mode by holding blue FUNC key and quickly pressing encoder 8 (second row). The activated edit mode is indicated by a small arrow in the second row on the right display border. Setup data will be stored automatically after exiting edit mode.

To program an encoder, first choose the group (see controller mode), select the desired control by encoder 2, and then set different properties by the other encoders (see below). Selection of a Control works also with SHIFT + turning (for encoders) or SHIFT + pressing (for push buttons) the desired encoder.

There are also option menus for copy, fill, and set functions to modify individual properties for all controls in the same group. These functions can make editing much faster.



9 lines on the display mean that the property isn't available

### Control number (turn Encoder 2)

```
Ctrl: EC01... EC16
Ctrl: PB01... PB16
```

select encoder 1 to 16 for editing

select push button 1 to 16 for editing

### Link function (press Encoder 2)

```
Ctrl: .....>
```

link to the next control is active (arrow next to the control number)  
(available for encoder and push buttons 1...15)

The link function makes it possible to send out multiple commands by turning/pressing only one control.

### Display scale for encoders (turn Encoder 6)

```
Disp: Off
Disp: 127
Disp: 100
Disp: 1000
Disp: ±63
Disp: ±50
Disp: ±500
Disp: ONOF
Disp: 9999
```

blank display

standard display (0 to 127) MIDI 7 bit range

decimal display (0 to 100) percent

decimal display (0 to 1000) promille (recommended for 14 bit types)

bipolar display (-63...0...+63) MIDI 7 bit range

bipolar decimal display (-50...0...+50) percent

bipolar decimal display (-500...0...+500) promille (recommended for 14 bit types)

binary display (OFF = 0...63, ON = 64...127)

decimal display (0 to 9999) direct value up to 9999 (recommended for 14 bit types)

Set to 127, 100, +-63, +-50 or ONOF to send only 7bit (MSB)  
(works only with pitchbend and NRPN commands)

Options menu by pressing encoder 6 quickly:

- Copy display scale to all encoders in same group (hold encoder 4 while running bar lines shown)
- 
- 
- Cancel options menu (press encoder 16 quickly)

## Display scale for push buttons (turn Encoder 6)

```
Disp: Off
Disp: On
```

status of push button will be not shown

status of push button will be shown as star (\*) next to the name/value/bar (right side)

Options menu by pressing encoder 6 quickly:

- Copy display scale to all encoders in same group (hold encoder 4 while running bar lines shown)
- 
- 
- Cancel options menu (press encoder 16 quickly)

## Command type for encoders (turn Encoder 10)

```
Type: CCr1
Type: CCr2
Type: CCAb
Type: PrgC
Type: CCAh
Type: PBnd
Type: AftT
Type: Note
Type: NRPN
```

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

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

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

program change command (values 0 to 127)

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

pitch bend command (values 0 to 16383) 14 bit

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

note command (note on / note off)

four control change commands (address/data) 14 bit highres mode (values 0 to 16383)

Options menu by pressing encoder 10 quickly:

- Copy command type to all encoders in the same group (hold encoder 4 while running bar lines shown)
- 
- 
- Cancel options menu (press encoder 16 quickly)

## Command type for push buttons (turn Encoder 10)

```
Type: Off
Type: Note
Type: CC
Type: PrgC
Type: PBnd
Type: AftT
Type: Grp
Type: Set
Type: Acc3
Type: LSP6
Type: Min
Type: Max
```

push button doesn't work

note command (note on / note off)

control change command in 7 bit absolute mode mostly used as standard

program change command (values 0 to 127)

pitch bend command (values 0 to 16383) 14 bit

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

select a group (value 1...16)

select a setup (value 1...16)

switch encoder to accelerat. mode 3 temporarily while holding down (press and turn)

switch encoder to large step mode 6 temporarily while holding down (press and turn)

sets the associated encoder value to min value (lower)

sets the associated encoder value to max value (upper)

Options menu by pressing encoder 10 quickly:

- Copy command type to all encoders in the same group (hold encoder 4 while running bar lines shown)
- 
- 
- Cancel options menu (press encoder 16 quickly)

## Command mode for encoders (turn Encoder 14)

Mode:Div8	divide encoder resolution by 8 (very low resolution)
Mode:Div4	divide encoder resolution by 4
Mode:Div2	divide encoder resolution by 2
Mode:Acc0	no acceleration by faster turning
Mode:Acc1	low acceleration by faster turning
Mode:Acc2	middle acceleration by faster turning
Mode:Acc3	max acceleration by faster turning
Mode:LS=2	large step mode 2 (sends values in steps of 2)
Mode:LS=4	large step mode 4 (sends values in steps of 4)
Mode:LS=6	large step mode 6 (sends values in steps of 6) (very large steps)

Divider modes are useful for parameters with very small value ranges.

Large step modes works fine for switch parameters over large value ranges.

Options menu by pressing encoder 14 quickly:

- Copy command mode to all encoders in the same group (hold encoder 4 while running bar lines shown)
- 
- 
- Cancel options menu (press encoder 16 quickly)

## Command mode for push buttons (turn Encoder 14)

Mode: Key	send momentary command (upper value = press, lower value = release)
Mode: ToG1	send toggle command (upper value = on, lower value = off)

Options menu by pressing encoder 14 quickly:

- Copy command mode to all encoders in the same group (hold encoder 4 while running bar lines shown)
- 
- 
- Cancel options menu (press encoder 16 quickly)

## Command channel/group/setup (turn Encoder 4)

Chan : 01.... 16	choose MIDI channel 1...16
Group: 01.... 16	only for push button type 'Grp' choose group# 1...16
Setup: 01.... 16	only for push button type 'Set' choose setup# 1...16

Options menu by pressing encoder 4 quickly:

- Copy channel number to all encoders in the same group (hold encoder 4 while running bar lines shown)
- Fill channel# in the same group with ascending numbers (hold encoder while running bar lines shown)  
(hold encoder 5 to fill from upper left to lower right;  
hold encoder 6 to fill from lower left to upper right)
- 
- Cancel options menu (press encoder 16 quickly)

## Command number (turn Encoder 7 / 8)

- Numb: 000...127** choose controller 0 to 127 for CC commands  
**Note: 000...127** choose note number 0 to 127 (or note names) for note commands  
**Numb: 000...031** 0 to 31 (MSB) for high CC resolution mode (32 to 63 for LSB follows automatically)
- N: 000...127/000...127** 0 to 127 (MSB) / 0 to 127 (LSB) for NRPN commands (only for encoders)  
(use encoder 7 for MSB and encoder 8 for LSB values)

Options menu by pressing encoder 8 quickly:

- Copy command number to all encoders in the same group (hold encoder 4 while running bar lines shown)
- Fill command# in same group with ascending numbers (hold encoder while running bar lines shown)  
(hold encoder 5 to fill from upper left to lower right;  
hold encoder 6 to fill from lower left to upper right)
- 
- Cancel options menu (press encoder 16 quickly)

## Lower / upper value (turn Encoder 11-12 / 15-16)

- Lower: 000...127** choose a lower value (0 to 127) for all command types except relative modes  
**Upper: 000...127** choose an upper value (0 to 127) for all command types except relative modes

- Low: 00000...04094,16383** choose a lower value (0 to 16383) for all 14bit command types  
**Uff: 00000...04094,16383** choose an upper value (0 to 16383) for all 14bit command types  
(values between 4095 and 16382 are not selectable !)  
(use encoder 11/15 for larger value steps about 100)

- Set a higher amount in lower value as the upper value to have an inverted control for encoders
- Suppress note off commands for push buttons by setting lower value to 0
- Invert push button display for note commands by setting upper value to 0

Options menu by pressing encoder 12 / 16 quickly:

- Copy lower / upper values to all encoders in the same group (hold encoder 4 while running bar lines)
- Set lower / upper values in the same group by the current value of the selected encoder (hold down encoder 8 while running bar lines shown)
- 
- Cancel options menu (press encoder 16 quickly)

## Name mode

All names for setups, groups and encoders are editable on the device.

You have to activate the name mode to write characters and numbers to these name fields.

To do so, hold the blue FUNC key and press encoder 12 quickly.

A small arrow in the third line on the right side of the screen lights up to show active name mode.

To select an encoder name field, hold the red SHIFT key and press the desired encoder quickly so the cursor is set to the first character of that name.

Each name field has 4 character space.

In Name mode all 16 encoder push buttons work as character keyboard, similar to a T9 phone keypad.

Characters/functions are printed below encoders.

To write all possible characters of an encoder, simply press several times at short intervals.

The flashing cursor automatically moves on after a new character has been written.

To write setup or group names, first press the gray SETUP or GROUP key.

Press the green NAME key to write encoder names.

Write four points '....' To the encoder name to have always the num or bar display for this encoder.

If you want to change setup or group while you are in name mode, hold down the SETUP or GROUP key and press an encoder quickly.

All names will be saved automatically after leaving name mode.

You can leave the name mode by holding blue FUNC key and press encoder 12 quickly.

Encoder characters / functions in name mode:

Encoder 1 : ABC	Encoder 2 : DEF	Encoder 3 : GHI	Encoder 4 : JKL
Encoder 5 : MNO	Encoder 6 : PQR	Encoder 7 : STU	Encoder 8 : VWX
Encoder 9 : YZ0	Encoder 10 : 123	Encoder 11 : 456	Encoder 12 : 789
Encoder 13 : _./- (special characters)	Encoder 14 : «« (shift cursor left)	Encoder 15 : »» (shift cursor right)	Encoder 16 : A-a (switch character size)

Switch between large and small characters by encoder 16.

The cursor size corresponds to the character size of the next written characters.

Use encoder push buttons 14 and 15 to move the cursor.

Press encoder 13 to write a space or special characters.

Each newly written character overwrites an existing character at the current cursor position.

## Learn mode

Learn mode is a fast way to assign the encoder properties number, channel, and type to the encoders. This is done through the input of incoming MIDI commands.

Control change, program change, NRPN, aftertouch, pitch bend, and note are valid commands for this procedure.

The following steps must be carried out in order:

1. Activate learn mode by hold down blue FUNC key and press encoder 16 quickly  
> small arrow in the lowest row on right display border shows active learn mode
2. Hold red SHIFT key and turn/press the desired encoder/push button quickly to prepare it for the next incoming command  
> the small arrow flashes to indicate that the device is ready to receive
3. Send a valid command to the device or cancel learn mode by step 5  
> the small arrow in display lights up again or is off
4. Repeat step 2 and 3 for each desired encoder
5. Deactivate learn mode by holding down blue FUNC key and pressing encoder 16 quickly  
> small arrow in the lowest row on right display border is off

All learn commands will be saved automatically.

You can also use learn mode in conjunction with edit mode in order to immediately control the incoming commands.

## Factory settings

### Commands for setups 1 to 14

#### **Encoder 1-16:**

disp = 127, channel = setup number, mode = Acc3, type = CCAb (absolute 7 bit)

Group:	1/9	2/10	3/11	4/12	5/13	6/14	7/15	8/16	
CC#:	000-015	016-031	032-047	048-063	064-079	080-095	096-111	112-127	

#### **Push button 1-16:**

disp = On, channel = setup number, mode = Key, type = Note

Group:	1/9	2/10	3/11	4/12	5/13	6/14	7/15	8/16	
Note#:	000-015	016-031	032-047	048-063	064-079	080-095	096-111	112-127	

### Commands for setup 15/16 (Ableton live)

Special assignments for Ableton Live scripts...

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

Routing mode: MMMU (MIDI to MIDI, MIDI to USB)

Display brightness: 50%

Screensaver: 00 (off)

Note names: off



**User manual EC4 version 3**  
as of firmware version 2

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