OWNER'S MANUAL

LACHNIT MK2 Studio 88 and **LACHNIT** MK2 Imperial 97

Thank you very much for choosing an **FLKeys** product.

180 years of Viennese piano building experience, as well as 30 years of research and knowledge in piano electronics are packed into each LACHNIT FLK MIDI keyboard.

Our customers are mainly professional musicians and artists but our products are also suitable for students, especially as they give you the freedom to practice anytime anywhere.

Many thoughts were spent to make operating the keyboard as easy as possible. If you are familiar with MIDI basics, you will be able to play your MK2 instantly without having to look into the manual for first steps instructions.

Nevertheless, we advise you to read your owner's manual thoroughly as it will give you valuable information to get the best results out of your LACHNIT MK2 -keyboard.

Friedrich Lachnit

CONTENTS

FIRST STEPS

Read enclosed safety instructions carefully. SPECIAL MESSAGE SECTION Page 21

Place the instrument in a stable position. The surface has to be as even as possible to ensure a stable position for all legs to touch the ground. We recommend using a high quality keyboard stand. Find a position where all legs or the bottom of the keyboard rest in a secure stable position. Incorrect positioning can result in damage of your keyboard as well as production of unwanted secondary noises. Tilted positions are possible but reduce the weightage of the keys and change the mechanical touch when playing.

Connect the **FLK** power supply

We highly recommend using only the original **FLK** power supply. Damages caused by using other forms of power supply are not included in your warranty.

Midi connection

If required plug in pedals.

The MK2 is preprogramed to work with the separately purchasable FLK double pedal, but works just fine with any conventional damper pedal. Pedal contact type (Open / Close) is automatically detected when your keyboard is turned on.

Push **ON** to turn your **MK2** keyboard on

Key 1 lights up and the display shows *P 1*
Your **MK2** receives data on all channels (Omni Mode ON).

Panic Reset flashes when keys are pressed or controllers are used (for further details go to page 12: MIDI activity)
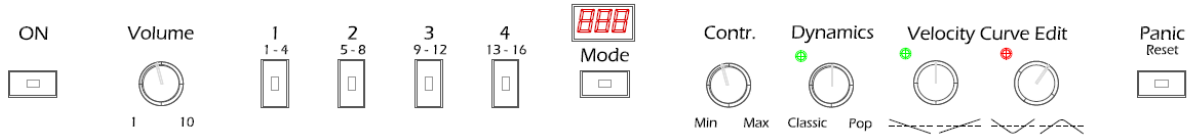
To turn off your keyboard hold the **ON** button down till the display changes from *P'.'r* to *bYE*. The delay in switching off prevents accidental turn off while in use.

AT A GLANCE

CONTROL PANEL

ON	Contr.
ON on/off key with turn off delay to prevent accidental switch off while in use	**Contr.** user defined controller min-max (0 – 127)
Volume volume control knob	**Dynamics** Knob with detent to regulate key dynamics
Keys 1 2 3 4 program selection for 16 programs organised in 4 banks 16 profiles for storing dynamics and velocity settings	**Velocity Curve Edit** 2 knobs with detent to adjust midi velocity
Display 888	**Panic Reset** MIDI reset / MIDI activity
Mode function key LED lights up if in use bank selection (1-4 5-8 9-12 13-16)	

PIANO KEY FUNCTIONS

For further details see secondary key functions page 10

SOCKETS AT THE BACK OF THE KEYBOARD
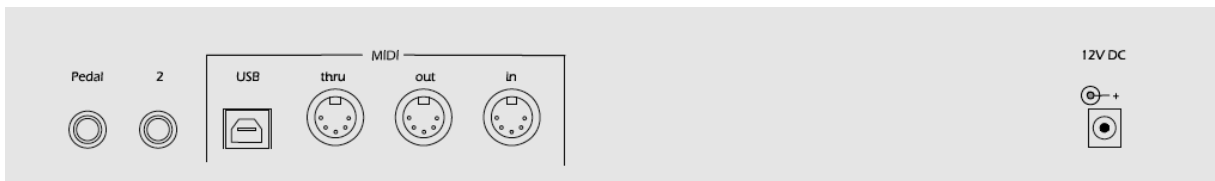
pedal	pedal 2 / expression	USB	MIDI thru	out	in	socket for 12 V power supply

More detailed technical information on page technical details 17.

OPERATION

DYNAMICS

Dynamics
Classic   Pop

The Dynamics controller changes the velocities of the MK2 keys to suit your keystroke. It customizes the output to meet the dynamic needs of the attached sound module.
Controller in neutral position: LED is green, display shows *0*
Turn left up to *-64* or right up to *63*: the LED changes to red.
Controller position is different to current settings: LED doesn't light up, display shows *---*.

Classic: heavy keystroke – less volume   *-64*   (MIDI 127 similar to grand piano).

Neutral   average keystroke   *0*

Pop   light keystroke – more volume   *63*   (MIDI 127 easy achievable).

Each controller position uses the full midi velocity resolution. Even the slightest nuances in your dynamic play will be allocated correspondent midi values from 1 to 127. (Read more on page 12: Piano Modus on/off)

For detailed technical information go to page 17

VELOCITY CURVE EDIT

Velocity Curve Edit
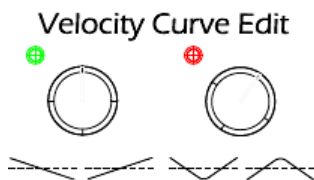
These two controllers adjust the volume on individual regions of the keyboard. They can be used whilst playing and enable you to optimise the output to the requirements of your sound module.
neutral: *0*   max left *-64*   max right *63*

| bass	treble	middle drop	middle peak
Volume increases on lower keys, it decreases on higher ones.	Volume increases on higher keys, it decreases on lower ones.	Volume decreases on middle keys (c1), it increases on higher and lower ones.	Volume increases on middle keys (c1), it decreases on higher and lower ones.

neutral: no change, display: *0*
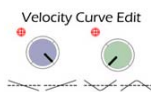LED is green

neutral: no change, display: *0*
LED is green

The controllers can be used together for generating more complex velocity curves.

Example: both controllers set to maximum:

MIDI key numbers

Controller setting:
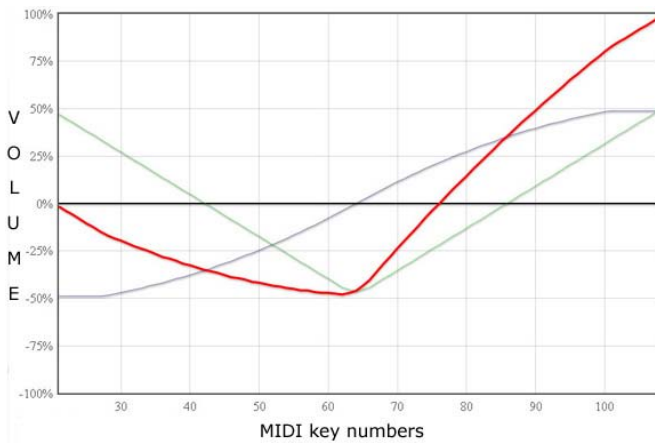
Velocity Curve Edit

Display: 63   -64

Resulting Velocity Curve: ———

Your personal dynamic settings can be assigned by using „Dyn Store" to the current program number. (For further details see secondary key functions page 10)

When recalling a previously stored dynamic setting all stored parameters (dynamic and both velocitiy curves) are automatically set. Therefore the current position of the knobs might not be the one used by the setting. In this case the LED of the controller in question doesn't light up.
If you twist a controller the recalled settings are changed and the LEDs as well as the display behave again as mentioned above. The stored settings stay in the memory till you use „Dyn Store" and the same program number again.

If you want to work with previously stored dynamic settings, push **Mode** *while turning the controller in question till the LEDs light up. Stored data is displayed and the controllers are in tune with your settings.*

Note:
If you want to use your dynamic settings without changing the current program on the sound module, it is possible to disable the program change. (See secondary key functions page 10 und 16) The display changes to d__ *with the profile number.*

KEYS **1 2 3 4** PROGRAM SELECTION

Push **Mode** to see the active bank number.

Hold **Mode** and push keys 1 – 4 to select a bank. After selecting a bank the first program of a bank is always selected.

Example:

Display: *P 2*   key 2: green LED on   program 2: is active

I want to change to program 10:

Hold **mode** ->
key 2: green LED off – key 1 red LED on (I'm still in bank 1 programs 1-4) ->
push key 3 (Now I'm in bank 3, programs 9-12) ->
release **Mode** ->
key 1: green LED on, program 9 is active, display: *P 9*
push key 2 green LED on, program 10 is active, display: *P 10*

KEY: **PANIC RESET**

The LED flashes green twice to confirm input, the display shows: *Pnc*

Sends to all connected MIDI devices:
All Notes off
Controller Reset
Resends all current settings

MIDI ACTIVITY:

Panic Reset key LED flashes red when data is received or sent using the MIDI interface.
Factory settings MIDI activity: transmit and receive on; adjustable with secondary piano key function mode

KNOB: **CONTR**.

Range: Min - Max
Factory settings: reverb
Display: *0* to *127*

Any user defined control number can be assigned by using the secondary key functions.

Number 0: Aftertouch sensibility can be changed

AFTERTOUCH SENSIBILITY ADJUSTABLE with **CONTR.**

The aftertouch sensitivity is automatically adjusted by the current position of the dynamics knob. If you want to adjust the aftertouch sensitivity manually whilst playing, assign the controller number 0 to **CONTR** using secondary function keys. In this state, the display will show *AFt* when turning the controller.

MK2 Imperial 97: Note Nr. 6 – 14 no aftertouch available.

Refer to page 16: Examples secondary key functions

SECONDARY PIANO KEY FUNCTIONS

Please read following instructions carefully before using the secondary key functions!

The keys don't generate sound if you switch to secondary piano key function mode. If you press a key you will change the settings. Therefore make sure you exit secondary piano key function mode before playing.

But don't worry, to change settings you always have to press more than one key at a time or hold down keys for several seconds. An acoustic signal as well as the display informs you of impending changes to the settings.
If you should accidentally get in this situation, don't panic. Read current settings on the display and double check them. If everything goes wrong you can always reset to factory settings or your personal setup. (User Store / User Recall)

ACTIVATE SECONDARY PIANO KEY FUNCTION MODE

To activate secondary piano key function mode press **Mode** and **ON** simultaneously. The LEDs on keys **1 2 3** and **4** turn red and **Mode** starts flashing red. Display shows *ñod*
Secondary piano key function mode is now active.
Each valid second key function input is confirmed with a brief acoustic signal.

Black keys (selection keys) select the setting you want to change; white keys (input keys) allow you to choose the desired parameter of the selection. Pushing down any selection key displays you the current setting. To change it, hold down the selection key while making changes by pushing the input key.
Exceptions: Dyn Store, User Store
For more detailed information refer to Examples secondary key functions (page 16).

The key a1 generates sound even in secondary piano key function mode to allow sound checks.

We highly recommend saving user defined settings before exiting secondary piano key function mode. If you should, for any reasons change your defined settings, "User Store" enables you to retrieve your personalised settings.
Go to "User Store" for further instructions on page 11

Exit secondary piano key function mode with the key **Mode**.
Mode stops flashing, the LED changes to green and the display shows *P* or *d*

RESET TO FACTORY SETTINGS

Change to secondary piano key function mode (**Mode** flashes red) and hold the key **Panic Reset** for three seconds, till it flashes red four times and you hear an acoustic signal.
Display toggles till you hear the signal: *9En rE5* Confirmation when finished: *don*

All configurations are changed to factory settings (see page 19) including User Store, dynamics and velocity curve settings.
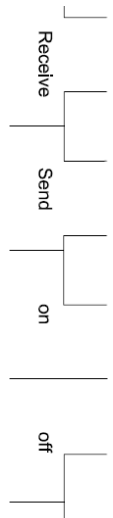
USER RECALL

Reset to last stored user defined setting

You can use USER RECALL whilst playing. You don't have to change to secondary piano key function mode.
To activate USER RECALL push the keys **Mode** and **Panic Reset** at the same time for one second till
Panic Reset LED flashes red three times und you hear an acoustic signal.
Display: *Urc* Confirmation: *don*
All settings are returend to the last saved user settings.

USER STORE

Stores all user defined keyboard configurations except dynamics velocity curve edit and pedal settings.
USER STORE can be recalled whilst playing by pushing **Mode** and **Panic Reset** for one second.
The last saved settings can be recalled. Storing new settings overrides previous stored settings.

Push **Mode** and **ON**. Display shows *nod*
Push and hold the black key "User Store" (B-2) for two seconds.
Display: *USt* Confirmation: *don*

Exit secondary piano key function mode with the key **Mode**.

KEY TRANSPOSE

Push **Mode** and **ON**. Display shows *nod*
Push and hold the black key "Key Transp." (...)
Push briefly one of the white keys -6 to +5.

Contra Fis	F#-1	-6 (lower)
C	C	regular
F	F	+5 (higher)

a1 can be used for sound check

Exit secondary piano key function mode with the key **Mode**.

KEYS

MIDI Settings

Push **Mode** and **ON**. Display shows *mod*
Push and hold the correspondent black key

Omni Mode

Program Change

Control Change

MIDI Activity

Change settings with the respective white keys.

Receive (g)   Shows received data

Send (a)   Shows sent data

on: receive/send (h)   Received AND sent data / acoustic signal on

off (c1)   Off / acoustic signal off

Note:
MIDI Act. off enables you to turn off the acoustic signal that confirms input.
Exit secondary piano key function mode with the key **Mode**.

Piano Mode

Push **Mode** and **ON**. Display shows *mod*
Push and hold the black key "Piano Mode" (…). Change settings by using the white keys:
on (h)   very slow key speed: no sound is produced
           (please refer to note on Sympathetic Resonance page 18)

off (c1)
a1 can be used for sound check
Exit secondary piano key function mode with the key **Mode**.

Waterfall

Push **Mode** and **ON**. Display shows *mod*
Push and hold the black key "Waterfall" (…). Change settings by using the white keys:
on (h)   Every keystroke generates the same velocity.
           Factory setting: MIDI 100. Change value with white keys 0-9.

off (c1)

a1 can be used for sound check
Exit secondary piano key function mode with the key **Mode**.

Omni
Mode

Progr.
Change

Contr.
Change

MIDI
Act.

Receive

Send

on

off

Piano
Mode

Water-
fall

a1

KEYS

DYN STORE

Push **Mode** and **ON**. Display shows *mod*

Push and hold the black key "Dyn Store" (…) for three seconds. Acoustic signal confirms successful input.

Display shows first: *Sto* then *d__*   Confirmation: *don*

Exit secondary piano key function mode with the key **Mode**.

Dynamic und Velocity Curve Edit settings are stored on the currently program number location.

(Please refer to page 6 for further details)

PEDALS

Push **Mode** and **ON**. Display shows *mod*

Push and hold the correspondent black key. Change settings by using the white keys:

		Controller numbers (default)
Left (f#2)	left pedal	67
Mid (g#2)	middle pedal	66
Right (b2)	right pedal	64

Exit secondary piano key function mode with the key **Mode**.

The MK2 is preprogramed to work with the separable purchasable FLK double pedal, but works just fine with any conventional damper pedal. Pedal contact type (Open / Close) is automatically detected when your keyboard is turned on. It can be changed with "Pedal Invers" (f#4) (see page 15).

For more details see: technical details page 17

CONTROLLER SETTINGS: PEDALS / EXPR. / KNOB / MOD. WHEEL / AFTERTOUCH

Push **Mode** and **ON**. Display shows *mod*

Push and hold the correspondent black key. Change settings by using the white keys.

Use keys 0 – 9 (f2 – a3) to enter the required controller number:

Please see also:

digit	0	1	2	3	4	5	6	7	8	9
key	f2	g2	a2	h2	c3	d3	e3	f3	g3	a3

Please see also: Examples secondary key functions on page 16

After entering 3 digits or release of the required black key an acoustic signal (ascending melody) confirms your input. In case of an invalid input you will hear a descending melody and your input is rejected.

PEDALS, EXPR., KNOB, MOD. WHEEL and AFTERTOUCH can be turned "on**"** (h1) and "off**"** (c1). Additionally you can invert the midi output with key "Ped Invers" (f#4). You can also change the output mode to continuous using the key "contin" (c#4) or to switch using the key "switch" (d#4).

Exit secondary piano key function mode with the key **Mode**.
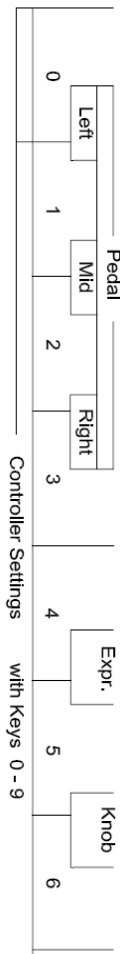
EXPRESSION

Push **Mode** and **ON**. Display shows ⲣod

Push and hold the correspondent black key. Change settings by using the white keys.

Use the black key "Expr." (c#3) to define the used controller number.
Default: Expression (controller number 11)
Exit secondary piano key function mode with the key **Mode**.

A sostenuto pedal can also be plugged into "2 / Expression".
Further details in technical details, page 17.

KNOB

Push **Mode** and **ON**. Display shows ⲣod

Push and hold the correspondent black key. Change settings by using the white keys.

Use the black key "Knob" (d#3) to define the used controller number.
Default: Reverb (controller number 91)
Exit secondary piano key function mode with the key **Mode**.

MOD WHEEL

Push **Mode** and **ON**. Display shows ⲣod

Push and hold the correspondent black key. Change settings by using the white keys.

Use the black key "Mod. Wheel" (f#3) to define the used controller number.
Default: Modulation (controller number 1)
Exit secondary piano key function mode with the key **Mode**.

AFTERTOUCH

Push **Mode** and **ON**. Display shows ⲣod

Push and hold the correspondent black key. Change settings by using the white keys.
Use the black key "Aftertouch" (g#3) to define the used controller number.
Default: Channel Aftertouch (controller number 0)

The aftertouch sensitivity will be adjusted according the current position of the controller **Contr** instead of the automatic adjustment by assigning the controller number 0. In this mode, the display will show ⲁFt when changing the controller.
Exit secondary piano key function mode with the key **Mode**.
MK2 Imperial 97: Note Nr. 6 – 14 no aftertouch available.

Controller Mode

Push **Mode** and **ON**. Display shows ⲣod
When a controller is selected, you can change it to continuous or switch mode using following keys:

Contin (c#4)   continuous controller (0-127)   Display: Ⲥo
Switch (d#4)   on-off controller (0-64 off / 65-127 On)   Display: Ⲋⳙ

Exit secondary piano key function mode with the key **Mode**.

Controller Settings with Keys 0 - 9	Midi Channel Keys 1 - 16
3 — It	11 — Contin (Controller Mode)
4 — Expr.	12 — Switch
5 — Knob	13
6	
7 — Mod. Wheel	
8 — After-touch	
9	
10	
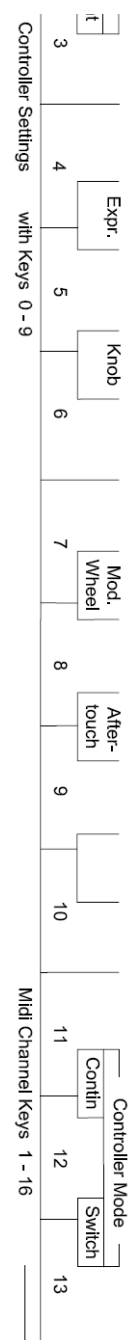
KEYS

PEDAL INVERS

Push **Mode** and **ON**. Display shows 𝘮od

Select a controller using black keys and push the black key „Ped Invers" to invert the controller (relative to the current state). The display will show ı 𝘊o or ı 𝘚𝘶 for an inverted controller and 𝘊o or 𝘚𝘶 for a non-inverted controller.

Exit secondary piano key function mode with the key Mode.

PED CAL

Push **Mode** and **ON**. Display shows 𝘮od

With this key you are able to calibrate your pedals. More details see page 17 Pedals

MIDI CHANNEL SELECTION 1 – 16

Push **Mode** and **ON**. Display shows 𝘮od

Push and hold the black key "Midi Ch." (b4) and use the white number keys to select the required MIDI channel from 1 to 16.

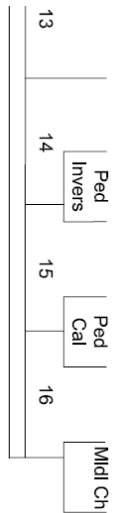| Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
key	g2	a2	h2	c3	d3	e3	f3	g3	a3	h3	c4	d4	e4	f4	g4	a4

Exit secondary piano key function mode with the key **Mode**.

DISPLAY BRIGHTNESS

Push **Mode** and **ON**. Display shows 𝘮od

Using the program selection keys 1 2 3 4 you can select a low (1) or high (4) brightness.

Exit secondary piano key function mode with the key Mode.

EXAMPLES SECONDARY KEY FUNCTIONS

➢ You want to activate the **Piano Mode**:

Push **MODE** and **ON**. The 4 program selection keys turn red and the mode key starts blinking. The secondary piano key function mode is activated; display shows *mod*

Hold down the black key for "Piano Mode" (…) and push the white key for "On" (…), you will hear an acoustic signal and will see a change on the display.

Exit secondary piano key function mode with the key **Mode**.

➢ You want to use the knob "Contr." to control the **aftertouch sensibility**:

Therefore you have to assign the controller number 0.

Push **MODE** and **ON**. The 4 program selection keys turn red and the mode key starts blinking. The secondary piano key function mode is activated, display shows *mod*.
Hold down the black key for "Knob" (d#3) and push the white key for "0" (f2).
If you press a key you will hear an acoustic signal.
After releasing the key "Knob" (d#3) you will hear an acoustic confirmation (ascending melody).
Display shows *AFt* following with *mod*. Your input was successful.

Exit secondary piano key function mode with the key **Mode**.
You are now able to use the controller for adjusting the aftertouch sensibility to suit your needs.

➢ To assign a multi-digit number always put in the highest digit first.

For example: To enter controller number 91 (Reverb) first enter "9" (white key a3), following "1" (white key g2). After releasing the black key you assigned the controller number. The controller will send the values 0 – 127 with controller number 91 using the MIDI interface.

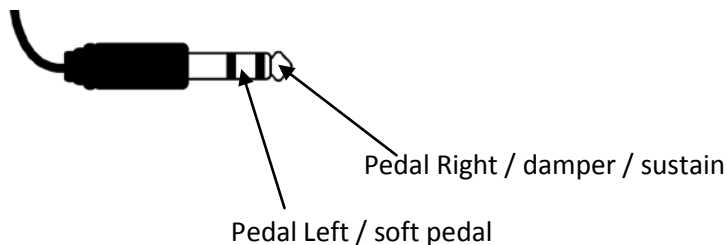*MK2 Imperial 97: Note Nr. 6 – 14 no aftertouch available.*

Note:

You are also able to use the white keys for two digit numbers 10 – 16. e.g. 127 using the white keys for 12 and 7.

We recommend saving your current settings using "User Store**"** (B-2) before leaving secondary piano key function mode.
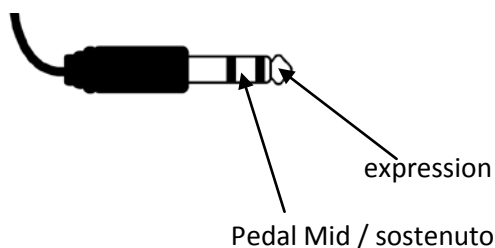
TECHNICAL DETAILS

PEDALS

Stereo Jack: Pedal (is prepared by default to work with the separate purchasable FLK double pedal)

Pedal Right / damper / sustain

Pedal Left / soft pedal

Stereo Jack: Expr. / 2

expression

Pedal Mid / sostenuto

The original FLK dual pedal features a continuous damper pedal and an on-off soft pedal. Factory settings support the FLK dual pedal and the most conventional damper pedals.
Pedals with closed contacts are shown as: ꞮꞀꞀ or ꞮꞀo
Pedals with open contacts are shown as: ꞀꞀ or Ꞁo
Using secondary piano key function mode, every pedal can be inverted.
To support pedals from other manufacturers you are able to calibrate the internal parameters to use the whole range of your pedal (calibration).

Special codes for MK2 pedal calibration using the secondary piano key function mode:

Hold down the black key "Ped Cal" (g#4) and enter one or more of the following codes:

501 for right pedal / sustain / damper

502 for left pedal / soft pedal

504 for middle pedal / sostenuto

503 for expression pedal

510 optimal settings for FLK dual pedals on stereo jack for main pedals

516 default values (0 – 127 equals ~2 to 10 kOhm) resets **ALL** pedal calibrations to factory settings. User calibration data will be deleted!

> ➤ Example:

Push **MODE** and **ON** simultaneously > Hold down "Ped Cal" (g#4) > Enter the required code >
Release "Ped Cal" (g#4) > Ascending melody for confirmation

The minimum and maximum position of your pedal will be automatically measured and saved when
quitting the secondary piano key function mode by pressing **Mode**.

Hint:
*We recommend pushing the pedals by hand when calibrating as the results will be more accurate, especially if
you only want to calibrate part of the travel range.*

Instructions:
*Push the pedal to the required minimum. After you let go "Ped Cal" (g#4) the current position is stored as zero
point. Push the pedal now slowly to the desired end setting and hold this position. Store it by pushing* **MODE.**
This also exits secondary piano key function mode.
*Attention: The longest travel range within a calibration session is stored. Calibrating the pedal again overrides
previous stored values.*

Almost any conventional pedal can be used with your FLK. It may be necessary to use a stereo to
mono splitter.

SYMPATHETIC RESONANCE

When using a sound module with Sympathetic Resonance we recommend disabling Piano Mode. It is
then much easier to play notes with velocity 1 and allow the strings to sound.

USB CONNECTION, FLK DRIVER

Your MK2 keyboard will be displayed as „USB Audio Device" (or similar) under Windows™ and will
work as intended.
To distinguish your FLK keyboard from other MIDI equipment, we recommend installing the FLK USB
driver. Then it will be specified as „FLK USB Midi Interface".
FLK drivers can be downloaded from our website www.flkeys.at

POWER SUPPLY

Always use the original FLK power supply. It is suitable for AC voltage 100 V to 240 V at 47 Hz to 63
Hz.

Damages caused by using any other form of power supply are not covered by the FLKeys warranty.

FACTORY SETTINGS MK2

Function	value / setting	MIDI Controller No.	Restored on power Up	Notes
Midi	1		yes	
Program	1		yes	
Omni	On		yes	
Program Change	On		yes	
Control Change	On		yes	
MIDI activity	On receive /transmit		yes	
Piano Mode	On		yes	
Waterfall	Off / MIDI 100		yes	
Pedal right sustain damper	switch On	64	yes	
Pedal mid sostenuto	switch On	66	yes	
Pedal left soft pedal	switch On	67	yes	
Expression Ped	continuous On	11	yes	
Knob Contr.	continuous On	91	yes	
Mod. Wheel	continuous On	1	yes	
Aftertouch	continuous On	0 (Channel AT)	yes	
Knob Dynamics / Velocity Curve Edit	neutral (green LED) saved setups 1-16 neutral		yes	
Transpose	0		no	
Pedals	inverted		no	
Knob, Wheels, Aftert.	inverted		yes	

Pedal input is inverted if no pedals are connected. Display: ꞮSꞟ or ꞮꞒo
Calibration settings are **not** changed by reset to factory settings.

KEYS

Function		Transmitted	Recognized	Remarks
Basic Channel:	Default	1 – 16	1 – 16	Memorized
	Changed	1 – 16	1 – 16	
Mode	Default	1, 3	1, 3	Memorized
	Messages	X	O	
	Altered	******************	4 => 3, 2 => 1	
Note Number		15 – 113, 6 – 113 (*4)	X	MK2 Imperial 97: Note Nr. 6 – 14 no aftertouch available.
	True Voice	******************	X	
Velocity	Note ON	O (1 – 127)	X	Adjustable (*1)
	Note OFF	O (1 – 127)	X	
After Touch	Keys	X	X	(*4)
	Channels	O	O	
Pitch Bend		O	O	MK2 Studio only
Control Change (*2)	1	O	O	Modulation
	4	O	O	Expression
	7	O	O	Main Volume
	64	O	O	Hold Pedal
	66	O	O	Sostenuto
	67	O	O	Soft Pedal
	91	O	O	Reverb
	0 – 127	O	O	Customized Controller (*3)
Program Change (*2)		O (0 – 15)	O (0 – 127)	
	True #	******************	0 – 15	16 => 0, 17 => 1, …
System Exclusive		X	X	
Common	Song Position	X	X	
	Song Select	X	X	
	Tune	X	X	
System Real Time	Clock	X	X	
	Comand	X	X	
Aux Messages	All Sounds Off	O	O	
	Reset All	O	O	
	Controller	X	O	
	Local On/Off	O	X	
	All Notes Off	O	O	
	Active Sense	O	O	
	Reset			

Remarks

*1: Note On Velocity Calculation can be adjusted according to your personal style.

*2: Transmission and reception can be activated and deactivated separately.

*3: Each controller (except volume and pitch wheel) can be customized to a user defined controller number.

*4: LACHNIT MK2 Imperial 97 (97 Keys) *Note Nr. 6 – 14 no aftertouch available.*

Mode 1: Omni On, Poly Mode 2: Omni On, Mono   O : Yes

Mode 3: Omni Off, Poly Mode 4: Omni Off, Mono   X : No

SPECIAL MESSAGE SECTION

WARNING: Do not place this product in a position where anyone could walk on, trip over, or roll anything over power or connecting cords of any kind. The use of an extension cord is not recommended!

SPECIFICATIONS SUBJECT TO CHANGE: The information contained in this manual is believed to be correct at the time of printing. However, FLKeys reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

NOTICE: Service charges incurred due to a lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's

warranty, and are therefore the owner's responsibility. Please study this manual carefully and consult your dealer before requesting service.

IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT! This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by FLKeys may void your authority to use the product.

IMPORTANT: When connecting this product to accessories and/or another products use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions.

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep this manual in a safe place for future reference

WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

Power supply

Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Only use the voltage specified as correct for the instrument.

Use the specified adaptor only. Using the wrong adaptor can result in damage to the instrument or overheating.

Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.

Do not open

This instrument contains no user-serviceable parts. Do not open the instrument or attempt to disassemble or modify the internal components in any way. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified FLKeys service personnel.

Water warning

Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place containers on it containing

CAUTION

liquids which might spill into any openings. If any liquid such as water seeps into the instrument, turn off the power immediately and unplug the power cord from the AC outlet. Then have the instrument inspected by qualified FLKeys service personnel.

Never insert or remove an electric plug with wet hands.

Fire warning

Do not put burning items, such as candles, on the unit.

If you notice any abnormality

When one of the following problems occur, immediately turn off the power switch and disconnect the electric plug from the outlet. Then have the device inspected by FLKeys service personnel.

The power cord or plug becomes frayed or damaged.

It emits unusual smells or smoke.

Some object has been dropped into the instrument.

There is a sudden loss of sound during use of the instrument.

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the instrument or other property. These precautions include, but are not limited to, the following:

Power supply

Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower functional quality, or possibly cause overheating in the outlet.

When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.

Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.

Location

Do not place the instrument in an unstable position where it might accidentally fall over.

Before moving the instrument, remove all connected cables.

When setting up the product, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet. Even when the power switch is turned off, electricity is still flowing to the product at the minimum level. When you are not using the product for a long time, make sure to unplug the power supply from the wall AC outlet.

Use only the stand specified for the instrument. When attaching the stand or rack, use the provided screws only. Failure to do so could cause damage to the internal components or result in the instrument falling over.

Connections

Before connecting the instrument to other electronic components, turn off the power for all components. Before
NOTICE

turning the power on or off for all components, set all volume levels to minimum.

Be sure to set the volumes of all components at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level. This product in combination with sound software, an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

IMPORTANT: The louder the sound, the shorter the time period before damage occurs.

Handling caution

Do not insert a finger or hand in any gaps on the instrument.

Never insert or drop paper, metallic, or other objects into the gaps on the panel or keyboard. This could cause physical injury to you or others, damage to the instrument or other property, or operational failure.

Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.

Do not use the instrument/device or headphones for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss.

If you experience any hearing loss or ringing in the ears, consult a physician.

To avoid the possibility of malfunction/damage to the product, damage to data, or damage to other property, follow the notices below.

HANDLING AND MAINTENANCE

Do not use the instrument in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the instrument, TV, or radio may generate noise.

Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration, damage to the internal components or unstable operation. (Verified operating temperature range: 5° – 40°C, or 41° – 104°F.)

Do not place vinyl, plastic or rubber objects on the instrument, since this might discolour the panel or keyboard.

When cleaning the instrument, use a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.