♪Pro

User Manual

Version 1.0.0 - December 2020
by Joué Music Instruments

The Joué Pro is an expressive and modular MIDI MPE controller that feels like a real instrument.

It's an innovative and evolving instrument that simplifies digital music playing and offers experimented and professional musicians a unique level of expressivity and spontaneity.

The Pro Board is made of wood and metal and is equipped with a pressure sensitive sensor on which the Pro Pads are placed.
The Pro Pads can be assimilated to different instruments such as piano keys, guitar strings, drum pads or different effects controller to provide an infinite playground for musicians.

This manual details the use and functions of the Pro Board and its Pro Pads. If you're beginning with MIDI controllers or simply curious about the Joué Pro possibilities, we recommend to visit www.jouemusic.com and download the Joué Demo Sessions for Bitwig Studio 8 Tracks and Ableton Live.
These sessions feature fully prepared sounds and samples that give you some insight about the Joué Pro capabilities. You will also find some tutorials, tips and demos on Joué Music Instruments's website.

Enjoy music production with your Joué Pro!

The Joué Team

Summary

I - Introduction

The Joué Pro is an expressive MPE MIDI controller that reacts like a real instrument. Sensitive to natural gestures such as vibrato, bending and aftertouch, it brings your virtual instruments to life.
The Pro Board is the main element of the instrument, you need to plug it to your computer and download the Joué Editor. The Joué Editor is used to configure the Pro Pads. Every MIDI message sent by the Pads such as MIDI channel, note number, control change, pitch bend range, velocity range can be tuned.
Alone, the Pro Board won't make any sound, it is the medium on which we can place Pro Pads.

Important safety instructions.

- Read carefully the instructions
- Respect the instructions
- Do not use the device near a water source
- Use a dry rag to clean up the device
- Do not put the device near a source of heat
- Be careful not to bend the USB cable
- Only use the accessories provided by the fabricant
- Un-plug the device during storm periods or for extended period of non-use
- Entrust all repairs to a qualified technician. Maintenance is required when the device has been damaged in any way
- No fire should be in contact of the device
- Malfunctioning may appear if the device is placed on a metallic support, especially if it is iron

⚠ WARNING
Interference due to magnetic fields!

This product generates permanent magnetic fields (> 150 mT) that might interfer with cardiac simulators and defibrillator implats (ICDs).
Please maintain a distance of at least 30 cm (12") between the instrument and any cardiac pacemaker or defibrillator implant.

The Pro Board contains magnets and RFID readers, the Pro Pads contains metallic particules and RFID tags. Tags and RFID readers enable pads to be detected automatically by the board. We recommend not place the Joué Pro next to other magnetic devices or metallic support to avoid altering its functions.

WARNING: RFID tags in the pads must not be programed with another software than the one given by Joué Music Instruments. Do not try to program RFID tags with another software, it may damage RFID tags and compromise its use.

Environmental declaration.

Compliance Information Statement: Declaration of Compliance procedure
Product Identification: Joué Pro
Address: 87 quai des Queyries, 33100 Bordeaux, France

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For USA – to the User:

– 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 Joué SAS may void your authority, granted by the FCC, to use this product.

– Important: This product satisfies FCC regulations when high quality shielded cables are used to connect with other equipment. Failure to use high quality shielded cables or to follow the installation instructions within this manual may cause magnetic interference with appliances such as radios and televisions and void your FCC authorization to use this product in the USA.

– Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna
– Increase the separation between the equipment and receiver
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
– Consult the dealer or an experienced radio/TV technician for help

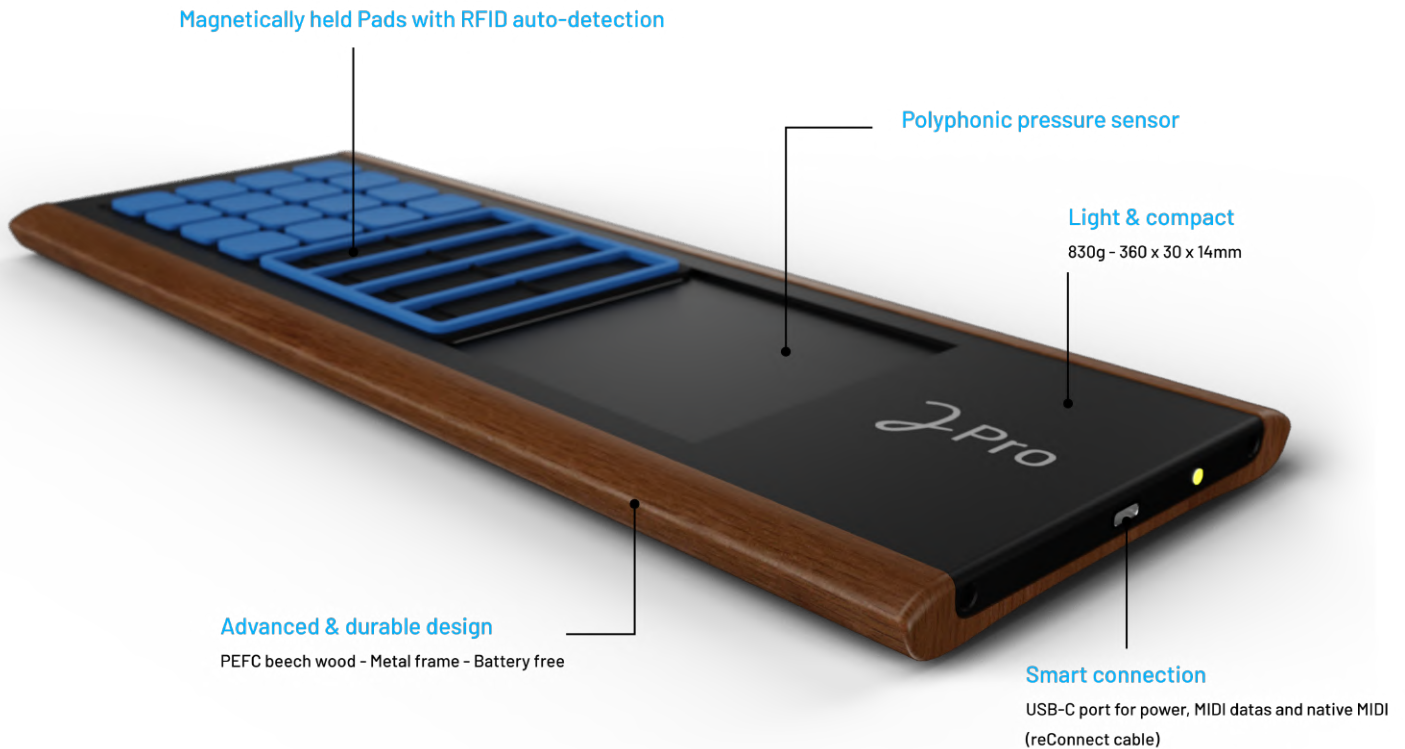**Box content.**

Pro Board
Pro Pads (depends on your purchase)
USB C to USB C Cable
Getting started flyer
Software licenses (depends on your purchase)

II – How does it work?

Joué Pro overview.

Magnetically held Pads with RFID auto-detection

Polyphonic pressure sensor

Light & compact

830g - 360 x 30 x 14mm

Advanced & durable design

PEFC beech wood - Metal frame - Battery free

Smart connection

USB-C port for power, MIDI datas and native MIDI
(reConnect cable)

The Pro Board.

The Pro Board is built around a highly sensitive multi-touch sensor that can capture very subtle pressure changes. The Pro Board has 3 slots which can be filled by Pro Pads. Each slot is equipped with a RFID reader allowing real-time pads detection.
The Pro Board connects to a computer, a tablet or a smartphone thru its USB-C to USB-C cable. The Pro device is USB powered. It starts automatically when plugged to a computer and its activity LED lights. The Pro device is automatically powered off when unplugged.

The Pro Pads.

The Pro Pads are made of soft and elastic silicone which transmits every single pressure variation to the sensor. Thanks to that, the Joué Pro offers a unique feeling of interaction based on natural gestures normally reserved to traditional instruments.

The Pro Pads fit with the sensor to provide different layouts of playing and control: the Joué Pro can alternatively be a standard MIDI controller, an effect control, a very expressive instrument, or even all at the same time!

Each pad will respond to vertical, horizontal and pressure movement, and send MIDI data (ie. Control change, pitch bend, etc.) to the connected device. This data is then used by the device or software to trigger sounds, control effects, etc. The MIDI standard allows for 16 independent channels. Each Pro Pad is set (by default) to a separate MIDI channel, so they are completely independent from each other (see Pads factory settings).

Making sounds.

The Joué Pro itself doesn't produce sound, it has to be connected to a MIDI compatible audio software to make music. Any DAW (Digital Audio Workstation), virtual synthesizers or MIDI compatible audio app can be used in correlation with the Joué Pro.
Visit our website to have more information about how to connect your Joué Pro to the most popular audio softwares.

The Joué Editor.
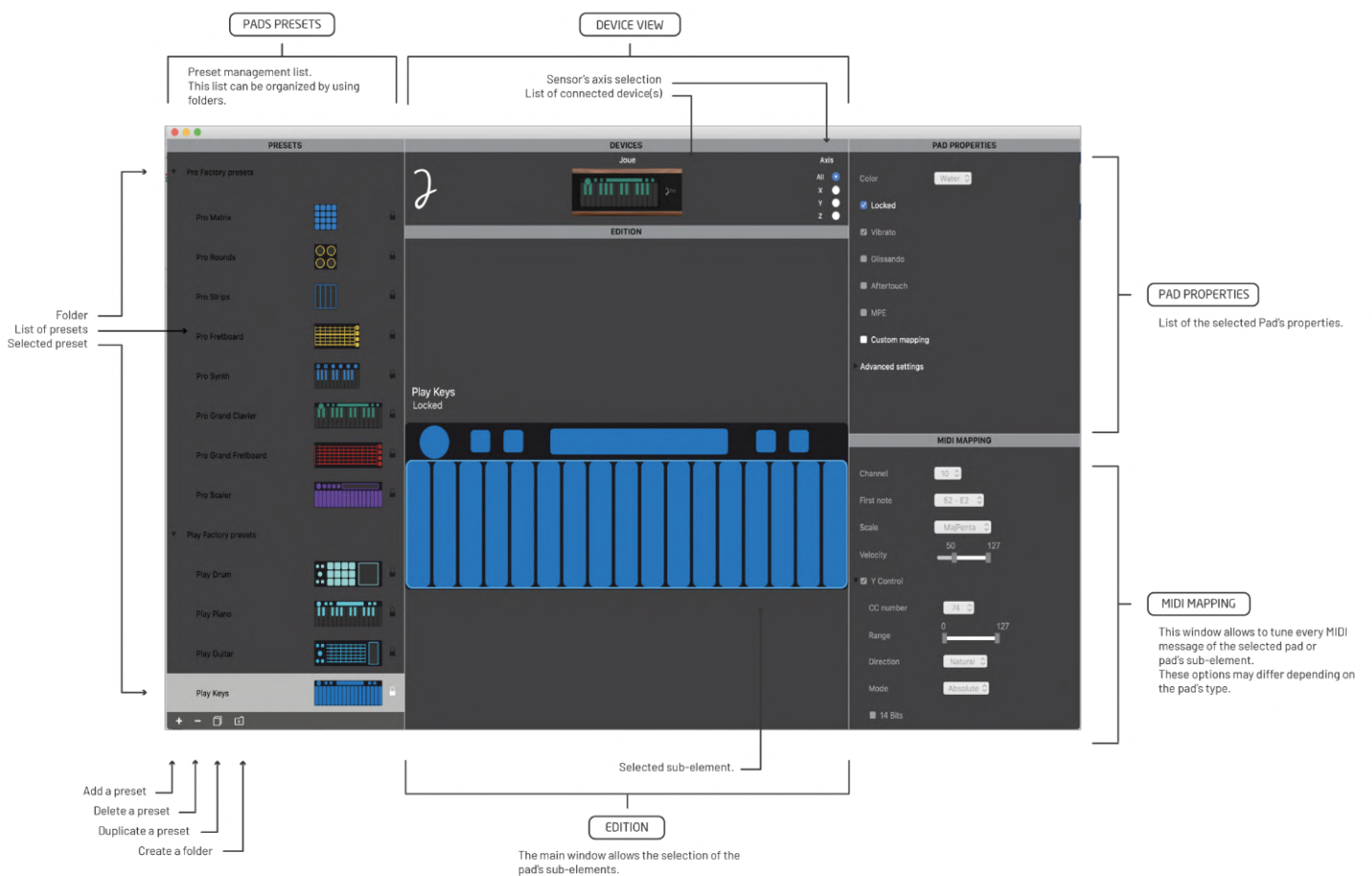
The Joué Editor is used to configure the Pro Pads. Every MIDI message sent by the pads such as MIDI channel, note number, control change, pitch bend range, velocity range can be tuned.

To configure a physical pad, create a new preset for this pad and configure it.
Once it's done, store the preset into the pad's memory by simply drag your preset from the library (or from the main edition window) and drop it on the according pad which is placed on of the Pro Board in the device view. The configuration is stored into the physical internal memory of the pad (RFID tag) allowing for hassle-free swaps during a live performance.
You can have several presets for the same physical pad. We recommend you to organize your workflow by using folders, for instance by song or project. You can re-organize the presets list by dragging each item into the list. A preset can also be duplicated easily for a fast configuration.
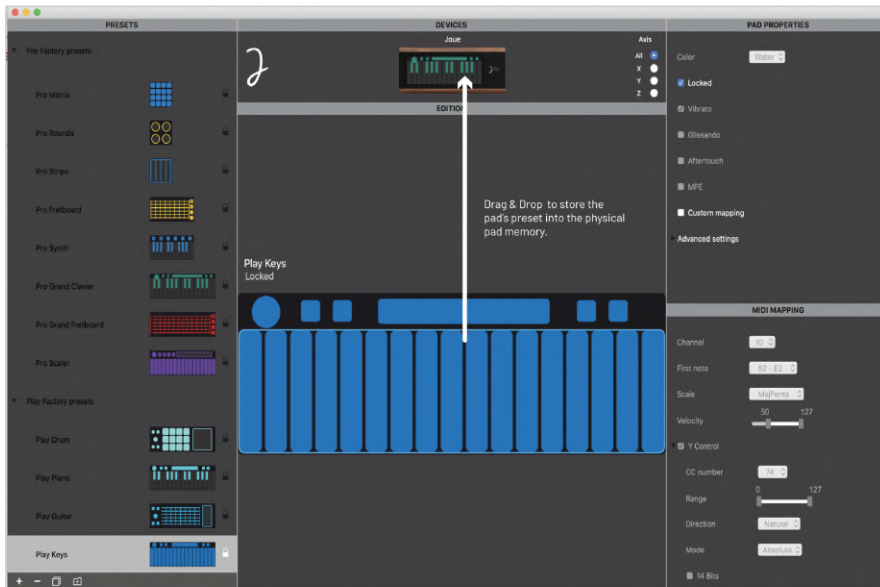
To read the physical pad configuration which is stored in its memory, click on the according pad on the devices view and read the properties. These properties cannot be changed (read only).
You can create a new preset out of an existing physical pad memory. Simply drag & drop the pad from the edition window to the preset list. It creates a new preset containing the pad configuration.
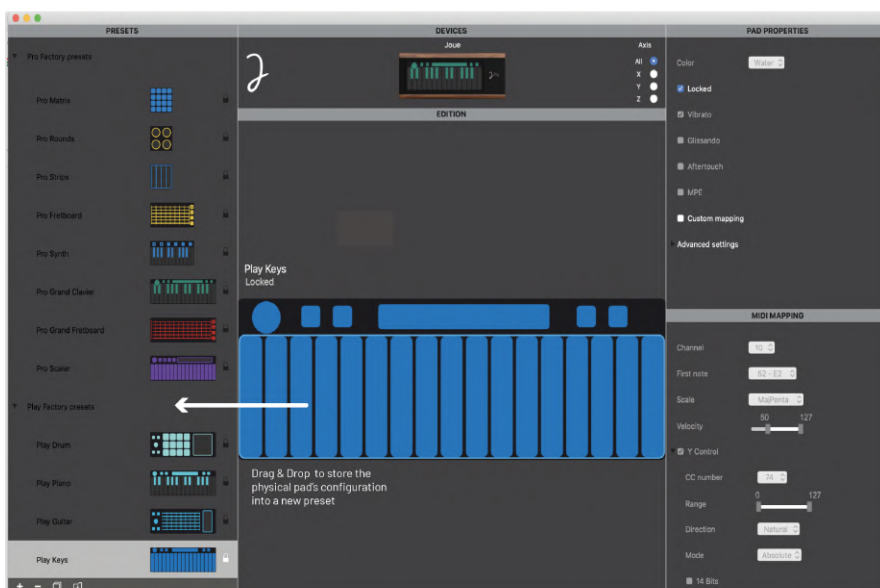
MIDI Mapping tips.

In order to quickly map continuous controls to a sound parameter, you can select which axis of the sensor sends MIDI data. It can be very useful to map 3D Pro Pads such as Area or Bubbles. To do so, select X, Y or Z in the Axis section of the device window:

X axis selected

Please note that this option is applicable to the whole device and to all pads present on top of the Joué Pro surface.

MPE compatibility.

One of the special features of the Joué Pro is its compatibility with MPE. MPE stands for Multidimensional Polyphonic Expression. It offers amazing possibilities that standard MIDI controllers and instruments do not have.
With MPE, each note's messages are sent on a unique MIDI channel, rotating through a defined contiguous block of channels called Per-Note channels. The per-note messages are for instance Note On, Note Off, Channel Pressure (for finger pressure), Pitch Bend (for X-axis movement) or any CC number. The CC74 is usually used for Y-axis movement. All other messages (like Program Change, CC7/volume, CC64/Sustain, etc.) apply to all voices and can be sent over a separate "Common" channel, though some MPE synths do not implement a Common channel, instead receiving these Common messages redundantly over the Per-Note channels.

For full specification of MPE, please refer to the following document
http://bit.ly/mpe-spec

Download the latest version of the Joué Editor on Joué's website :
https://jouemusic.com/pages/joue-pro

III – MIDI port configuration

The Joué Pro uses two different MIDI ports when connected to a computer.
The first port ("Joué Play" on Mac, "Joué" on Windows) is used for the communication between the Pro Board and any MIDI compliant software.
The second port ("Joué Editor" on Mac, "Joué (port 2)" on Windows) is used for the communication between the Joué Pro device and the Joué Editor software.
This second port must not be used to communicate with MIDI compliant software.

As an example, here's the configuration which has to be done for a proper using on Ableton Live:
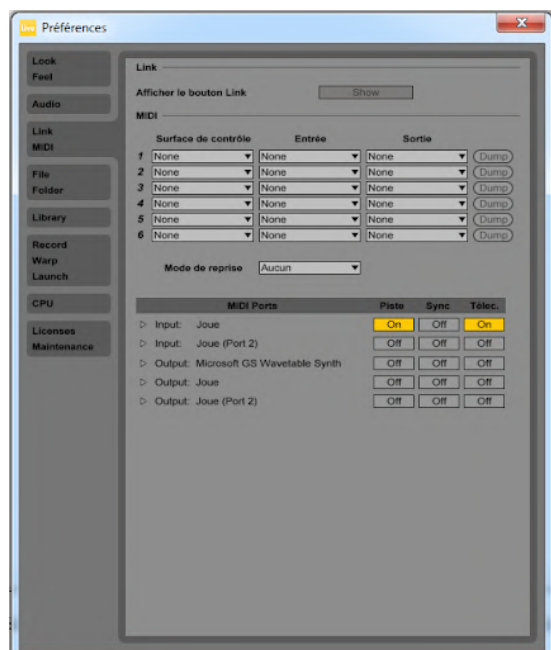
IV – Pro Pads parameters list and factory settings

Note: the "Locked" function in the "module properties" window allows to disable the modification of the preset's settings. This option is, by default, not activated expect for the Factory presets.

Pro Area Pad

Control any effect with the Pro Area. Slide your finger on its surface to modulate up to 3 parameters simultaneously. The pad sends X and Y position values as well as Z pressure values through MIDI Control Change.

<u>**Factory settings**</u>
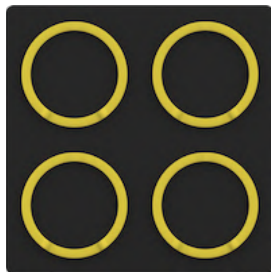
Pad properties
Pressure range : Low

Midi mapping:

X : On
X Channel : 7
X Control change : 1
X Range : 0-127
Direction : Natural
Mode : Absolute
14 Bits : off

Y : On
Y Channel : 7
Y Control change : 2
Y Range : 0-127
Direction : Natural
Mode : Absolute
14 Bits : off

Z : Off
Z Channel : 7
Z Control change : 3
Z Range : 0-127
Direction : Natural
Mode : Absolute
14 Bits : off

Pro Rounds Pad

Slide your fingers across the circles to control all of your settings. Tactile cues will allow you to have direct access to the min, mid and max values. The Pro Rounds can be used in relative or absolute mode.

<u>**Factory settings**</u>

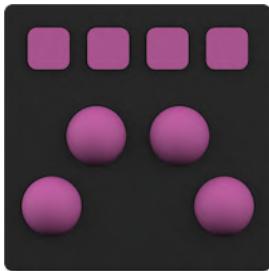Midi mapping (from bottom left to top right):

Round 1 :	Round 2 :	Round 3 :	Round 4 :
Midi channel: 9	Midi channel: 9	Midi channel: 9	Midi channel: 9
Control change : 1	Control change : 2	Control change : 3	Control change : 4
Range : 0-127	Range : 0-127	Range : 0-127	Range : 0-127
Direction : Natural	Direction : Natural	Direction : Natural	Direction : Natural
Mode : Absolute	Mode : Absolute	Mode : Absolute	Mode : Absolute
14 Bits : off	14 Bits : off	14 Bits : off	14 Bits : off

Pro Rounds Pad

Thanks to its 4 half-spheres comparable to joysticks, control up to 12 parameters with just one hand.
Personalize your sound by configuring the 4 top buttons of your Pro Bubbles.

Factory settings

Midi mapping:
Buttons (from left to right)

Button 1 :	Button 2 :	Button 3 :	Button 4 :
Action : Note	Action : Note	Action : Note	Action : Note
Channel : 6	Channel : 6	Channel : 6	Channel : 6
Value : 0 - C-2	Value : 1 - C#-2	Value : 2 - D-2	Value : 3 - D#-2

Bubbles (from left to right)

Bubble 1:	Bubble 2:	Bubble 3:	Bubble 4:
X Channel : 6	X Channel : 6	X Channel : 6	X Channel : 6
X Control change : 1	X Control change : 4	X Control change : 7	X Control change : 10
X Range : 0-127	X Range : 0-127	X Range : 0-127	X Range : 0-127
Direction : Natural	Direction : Natural	Direction : Natural	Direction : Natural
Start value : 64	Start value : 64	Start value : 64	Start value : 64
Y Channel : 6	Y Channel : 6	Y Channel : 6	Y Channel : 6
Y Control change : 2	Y Control change : 5	Y Control change : 8	Y Control change : 11
Y Range : 0-127	Y Range : 0-127	Y Range : 0-127	Y Range : 0-127
Direction : Natural	Direction : Natural	Direction : Natural	Direction : Natural
Start value : 64	Start value : 64	Start value : 64	Start value : 64
Z Channel : 6	Z Channel : 6	Z Channel : 6	Z Channel : 6
Z Control change : 3	Z Control change : 6	Z Control change : 9	Z Control change : 12
Z Range : 0-127	Z Range : 0-127	Z Range : 0-127	Z Range : 0-127
Direction : Natural	Direction : Natural	Direction : Natural	Direction : Natural
Start value : 64	Start value : 64	Start value : 64	Start value : 64

Pro Matrix Pad
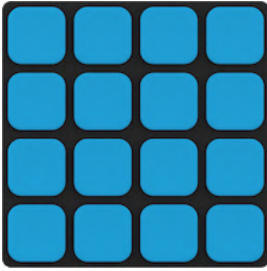
The Pro Matrix is a matrix of 4 × 4 pads, sensitive to pressure, vibrato and aftertouch for playing drums, percussion, melodies or for launching clips. The pads can be configured as a group or individually.

Factory settings

Pad properties:
Vibrato : off
Aftertouch : off
MPE : off
Custom Mapping: off
Pressure range : Low
MPE Channels : 1-16
Aftertouch : Channel
Vibrato : 1024
Pressure range : Low

Midi mapping:
Midi channel: 1
First Note: 36 - C1 (36 - C1 to 51 - D#2 from bottom left to top right)
Velocity: 50-127

Pro Strips Pad

Slide your fingers along the 4 tactile strips to control any setting. They are delimited by markers for direct access to the min, mid and max values. The Pro Strips can be used horizontally or vertically.

Factory settings

Pad properties:
Orientation: Vertical

Midi Mapping (from left to right):

Strip 1 :	Strip 2 :	Strip 3 :	Strip 4 :
Midi Channel : 8	Midi Channel : 8	Midi Channel : 8	Midi Channel : 8
Control change : 1	Control change : 2	Control change : 3	Control change : 4
Range : 0-127	Range : 0-127	Range : 0-127	Range : 0-127
Direction : Natural	Direction : Natural	Direction : Natural	Direction : Natural
Mode : Absolute	Mode : Absolute	Mode : Absolute	Mode : Absolute
14 Bits : off	14 Bits : off	14 Bits : off	14 Bits : off

Pro Matrix Pad
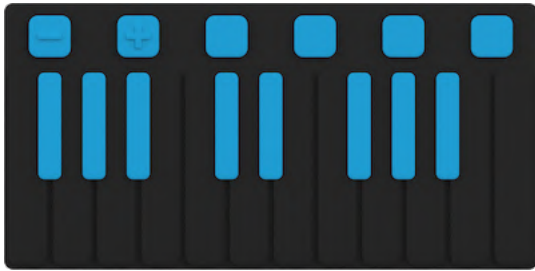
The Pro Synth is a one and a half octave keyboard with +/- octave buttons as well as 4 configurable buttons. Aftertouch, vibrato and Y-control give it a unique expressivity.

Factory settings

Pad properties:
Vibrato: off
Glissando : off
Aftertouch : off
MPE : off
Pressure range : Low
MPE channels : 1-16
Vibrato value : 1024
Glissando : 24 semitones
After touch : Channel

Midi mapping:

Keys:	Buttons (from left to right) :	
Midi channel: 4	Button 1 (not configurable) : octave -	Button 4:
First note : 53 - F2		Action : Channel selection
Velocity : 50-127	Button 2 (not configurable) : octave +	Value : 5
Y control: off		
	Button 3:	Button 5: sustain on/off
	Action : Channel selection	
	Value : 4	Button 6: vibrato on/off

Pro Fretboard Pad

With the Pro Fretboard, rediscover the sensitivity of traditional string instruments by activating vibrato and bending. It is composed of 6 strings and 9 frets as well as + / - octave buttons and 2 other configurable buttons. Strings can be configured as a group or individually.

Factory settings

Pad properties:
Vibrato : on
Bending : on
Aftertouch: off
MPE mode: off
Custom mapping : off
Pressure range : Low
MPE Channels : 1-16
Aftertouch : channel
Vibrato value : 1024
Bending value : 4096

Midi mapping:
Strings:
Midi channel : 2
First note : E1
Tuning: Guitar (E-A-D-G-B-E)
Velocity : 50-127

Buttons (from top to bottom):
Button 1 (not configurable) : Octave +

Button 2 (not configurable) : Octave -
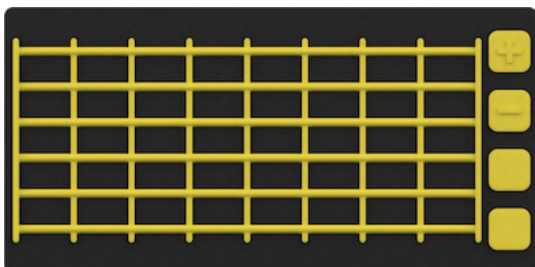
Button 3
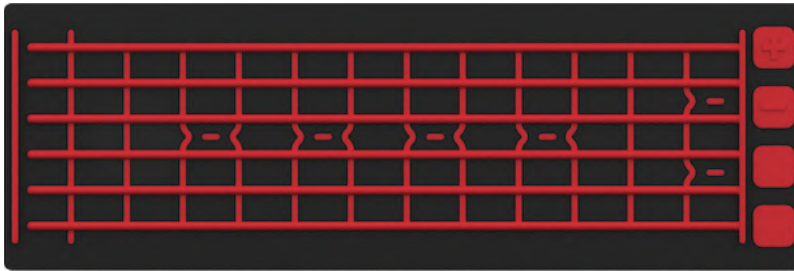Action : Channel selection
Value : 3

Button 4
Action : Channel selection
Value : 2

Pro Grand Fretboard Pad

Inspired by traditional string instruments and coupled with a selection of sounds from the UVI catalog, the Pro Grand Fretboard is sensitive to velocity, vibrato and bending. The optimized fret design promotes finger gliding on the strings and the introduction of "fretless" mode opens up new playing possibilities, especially for acoustic sounds.

Factory settings

Pad properties:
Fretless : on
Vibrato : off
Bending : off
Aftertouch : off
MPE : on
Custom mapping : off
Pressure range : Low
MPE channels : 1-16
Aftertouch channel
Vibrato : 1024
Bending : 800
Fretless pitch range : 24 semitones

Midi mapping:
Strings :
Channel : NA
First note : 40-E1
Tuning : Guitar
Velocity : 50-127

Buttons (from top to bottom):
Button "+" : Octave +
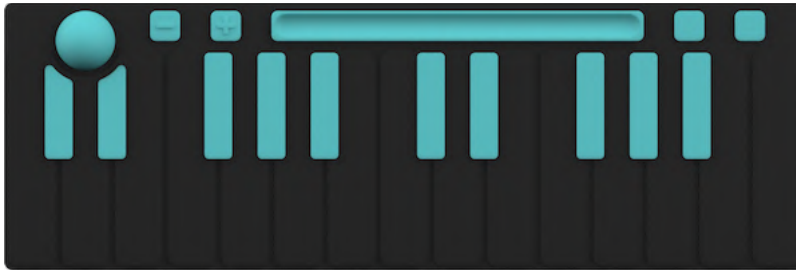Button "-" : Octave -
Button 1 :
Action : Channel selection
Channel : 3
Button 2 :
Action : Channel selection
Channel : 2

Pro Grand Clavier Pad

The Pro Grand Clavier, coupled with a selection of sounds from the UVI catalog, has 25 expressive keys to subtly play any type of digital instrument. The glissando mode allows to play continuously between notes and paves the way for microtonal interpretation. A bubble and a long ribbon complete one of the most expressive Pads of the moment.

The Grand Clavier is delivered with a tailor-made UVI Sound Pack including MPE expressive presets from acoustic instruments to electronic sounds.

<u>**Factory settings**</u>

Pad properties:
Vibrato: off
Glissando: on
Aftertouch: on
MPE mode: on
Pressure range : Low
MPE channels : 1-16
Vibrato value : 1024
Glissando value : 24 semitones
Aftertouch : polyphonic

Midi mapping:
Strings :
Channel : NA
First note : 40-E1
Tuning : Guitar
Velocity : 50-127

Bubble :
Horizontal : off
Vertical : off
Z Channel : 12
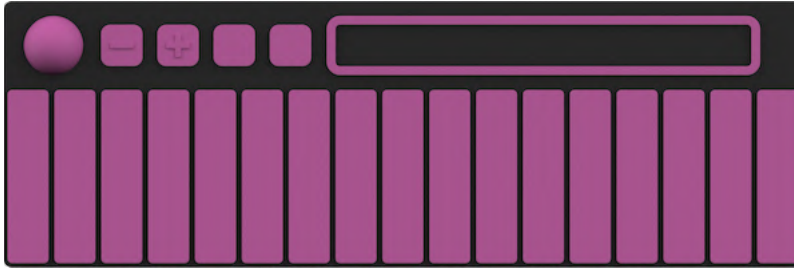Z Control change : 3
Z Range : 0-127
Direction : Natural

Ribbon :
Action : control change
Channel : 12
Control change : 4
Range : 0-127
Direction : natural
Mode : Absolute
14 bits : off

Buttons (from left to right):
Button 1 :
Action : Sustain on/off
Button 2 :
Action : Glissando on/off
Keys :
Channel : 12
First note : 48 - C2
Velocity : 50-127
Y control : On
Y control change : 74
Start value : 64

Pro Scaler Pad

The Pro Scaler is composed of 17 keys perfectly designed for playing harp, xylophone or synth leads. A variety of pre-configured ranges are available to instantly play. The keys are sensitive to velocity, vibrato, aftertouch as well as Y-control. A bubble and a long ribbon complete one of the most expressive Pads of the moment.

<u>Factory settings</u>

Pad properties:
Vibrato: off
Glissando : on
Aftertouch: on
MPE mode: off
Custom mapping : off
Pressure range : Low
Vibrato : 1024
Glissando : 24 semitones
Aftertouch : channel

Midi mapping:
Keys:
Channel : 10
First note : 52 - E2
Scale : Maj Penta
Velocity : 50-127
Y control : on
 Y control change : 74
Y control range : 0-127
Direction : Natural
Y control mode : Absolute
14 Bits : off

Bubble :
Vibrato: off
Glissando : on
Aftertouch: on
MPE mode: off
Custom mapping : off
Pressure range : Low
Vibrato : 1024
Glissando : 24 semitones
Aftertouch : channel

Ribbon :
Action : Control change
Channel : 10
Control change : 4
Range : 0-127
Direction : Natural
Mode : Absolute
14 Bits : off

Buttons (from left to right):
Button 1 : Octave -
Button 2 : Octave +
Button 3 :
Action : Channel selection
Channel : 10
Button 4 :
Action : Channel selection
Channel : 11

V – Pro Board specifications

Pro Board

360mm

90mm   90mm   90mm

130mm

$\curvearrowleft$Pro

270mm
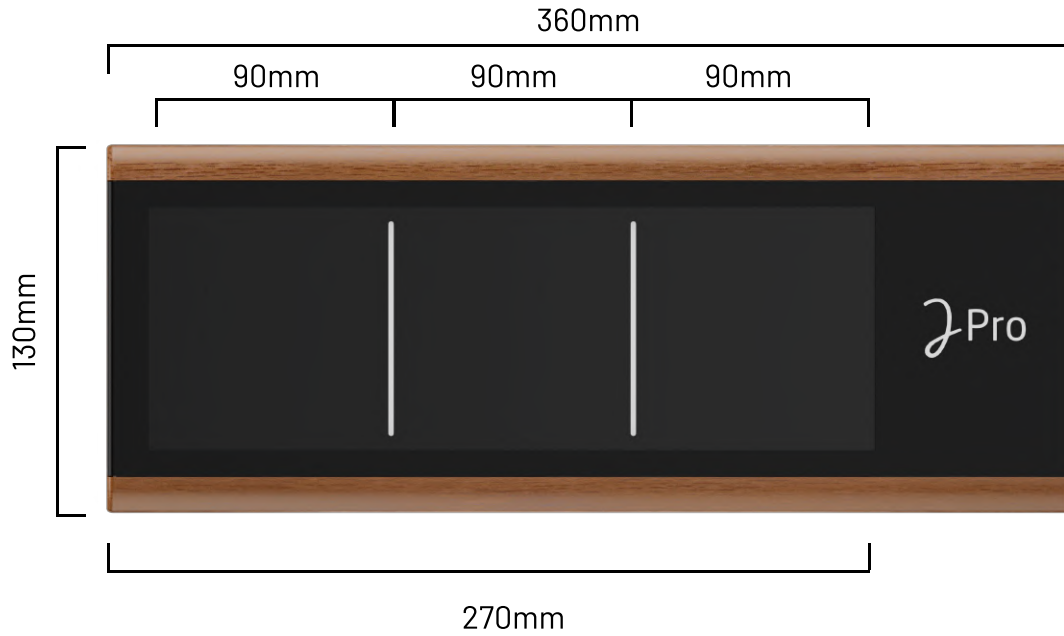
Weight: 800g
Connectivity: USB-C for datas and power supply
Full MIDI compatibility over USB
RFID readers in each slot to detect parameters embeded in the Pro Pads

Pro Pads

1 slot   2 slots   3 slots

90mm   180mm   270mm