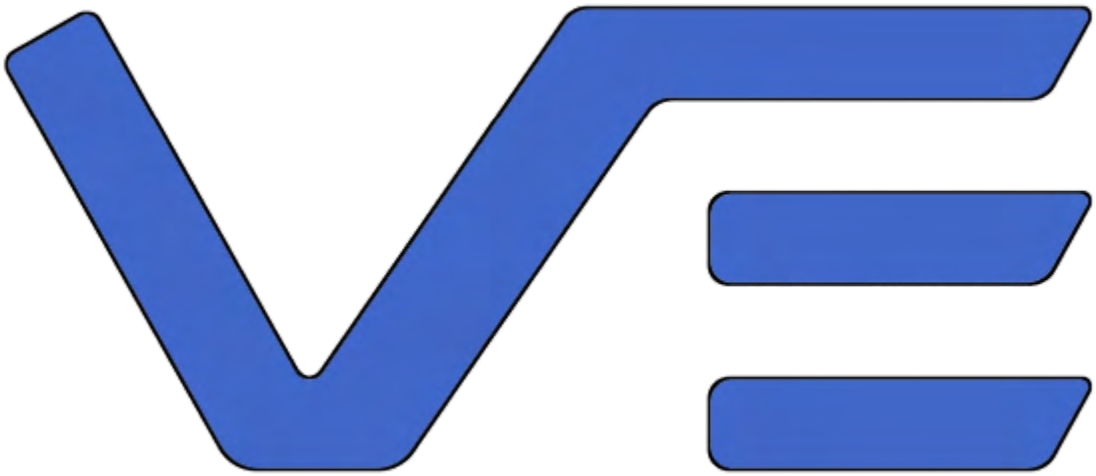

USER MANUAL

1.0

11/26/25

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INTRODUCTION

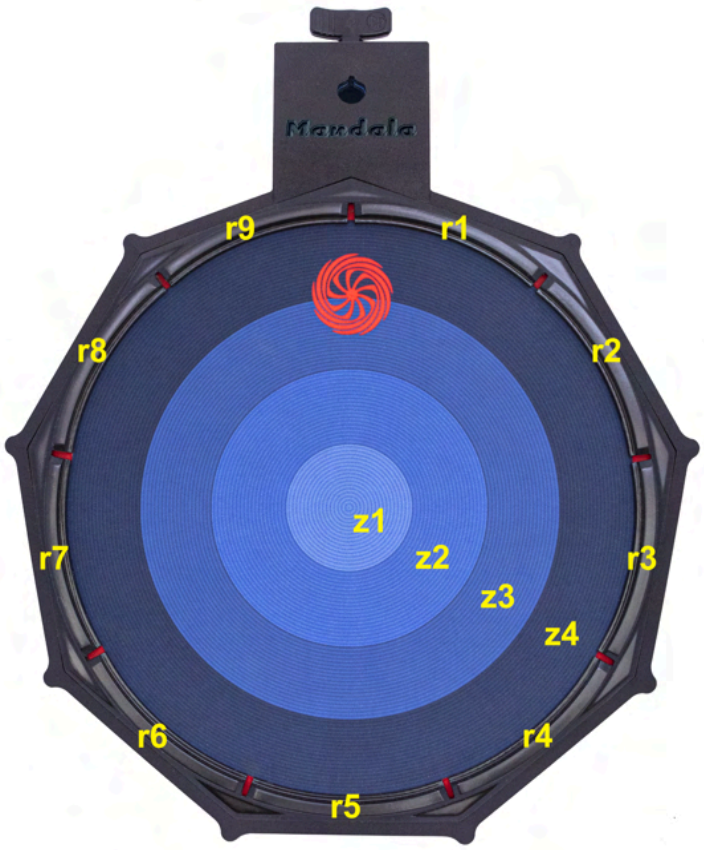
What is the Mandala V3?

The Mandala V3 is a patented percussion-based MIDI controller which features a high resolution position and pressure sensitive playing surface and nine pressure sensitive rim trigger zones. It is designed as a standard controller for your favorite MIDI compatible audio software and hardware.

To operate the Mandala V3 users should have both a basic understanding of MIDI and working experience with MIDI software and/or MIDI hardware. Please watch the V3 Setup Tutorial video.

BOTTOM LINE

The Mandala V3 outputs MIDI note triggers when you hit its surface and rims. It also outputs a MIDI continuous controller message based on the center-to-edge position of your surface strikes. If you engage any trigger zone (surface or rim) longer than just a standard strike the MIDI note trigger will stay on until you let go, and while the note is being held the Mandala V3 will also be outputting continuous controller messages based on the real-time pressure you are applying to the engaged strike zones (surface and rims) as well as how you are sliding on the surface (center to edge). Any trigger zone or continuous controller can be disabled/enabled or set to produce customized MIDI output by using the browser-based V3 Utility app.



Strike Zones

- z1 - z4 (surface)
- r1 - r9 (rims)

Continuous Controllers

- Surface Pressure
- Surface Strike Position
- Surface Slide
- Rim Pressure (r1 - r9)

WHAT'S IN THE BOX

- Mandala V3 Pad - used as a single pad or with additional Mandala V3 units you can enhance your home studio, hybridize your acoustic kit, expand your electronic kit, and refine your chops and rudiments.

- Standard USB A-B Cable

WHAT'S REQUIRED

- Any computer (MacOS/Windows/Linux) or device that hosts USB and runs your favorite MIDI compatible audio software

or

- Any MIDI compatible hardware

GET STARTED

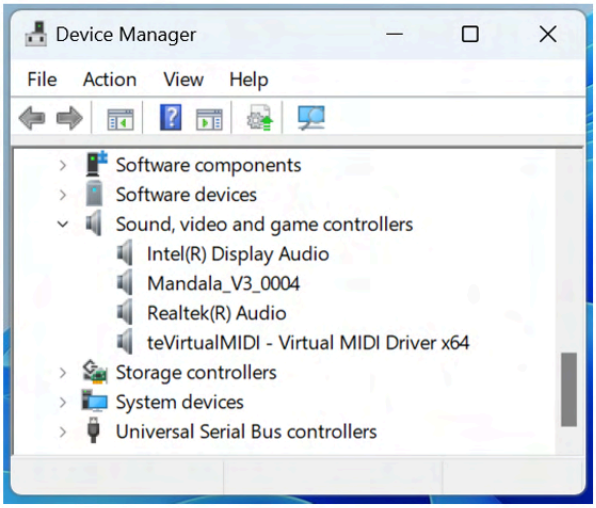
- Mount your Mandala V3 on any L-rod hardware (up to 10.5 mm diameter)
- Your V3 offers both USB and 5-pin MIDI output ports:

**** DO NOT PRESS ON THE MANDALA SURFACE OR RIMS WHILE IT IS BOOTING UP ****

Use with USB (3-4 seconds boot time)

- Connect the included USB cable from the USB-B port on your Mandala V3 to a USB-A port on your computer or device. If your computer or device only offers other ports (USB-C, micro USB, mini USB, lightning) please use an appropriate adaptor.

MacOS will show Mandala_V3_#### in the MIDI Studio window of Audio MIDI Setup



Windows will show Mandala_V3_#### under Sound, video and game controllers in Device Manager

**** If you have multiple Mandala V3's and not enough available USB ports on your computer please connect the Mandalas through a powered USB hub.***

Use with 5-pin MIDI (~20s seconds boot time)

- Connect a 5-pin MIDI cable from the 5-pin MIDI port on the Mandala V3 to the MIDI input port on your hardware. You must also connect the included USB cable from the USB-B port on the Mandala V3 to a standard 5V USB power supply (or to an available USB-A port on a piece of hardware). The red light under the V3 will turn red in about 20 seconds and 5-pin MIDI will then be available.

Use with USB MIDI and 5-pin MIDI at the same time (3-4 seconds boot time)

- Connect the included USB cable from the USB-B port on your Mandala V3 to a USB-A port on your computer or device. If your computer or device only offers other ports (USB-C, micro USB, mini USB, lightning) please use an appropriate USB-A adaptor.

- Connect a 5-pin MIDI cable from the 5-pin MIDI port on the Mandala V3 to a MIDI Input port on your hardware

Familiarize yourself with the V3 pad and its features

- Continue through this manual if you would like to dig deeper into what the V3 offers before you start playing, including the Mandala V3 Utility App section (p.9).

OR

Open your favorite audio software/turn on your MIDI hardware and play away!

- Once you are connected by way of the steps above your pad is ready for action. Load tonal or percussive presets in your audio software or on your hardware and have at it. The factory default settings of your V3 can take you far. All 13 trigger zones are already set to be the notes of a C major scale and Surface Slide is set to be a Mod Wheel.

  If you have multiple V3's and you want them isolated from each other please see '**I have multiple V3's**' in the **TROUBLESHOOTING** section below.

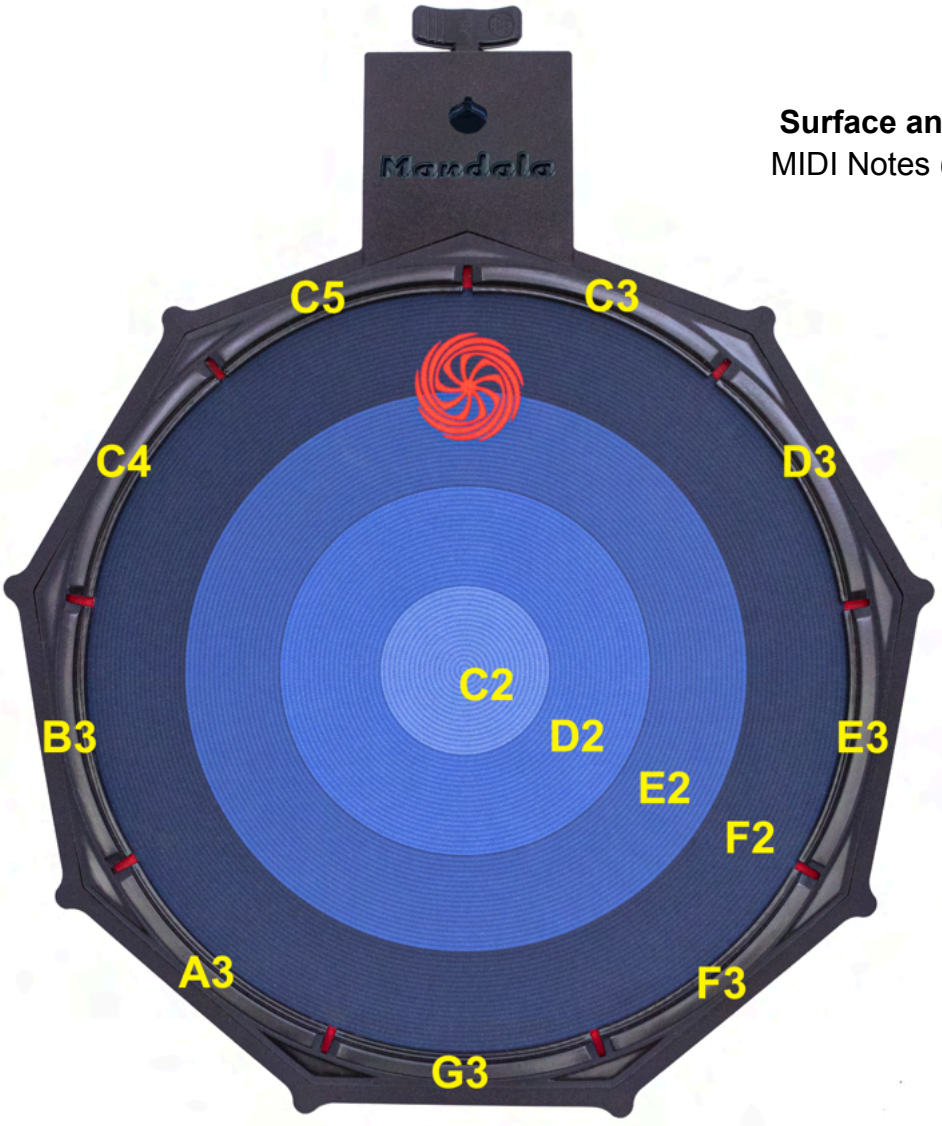
FEATURES OVERVIEW

Sensor Layout

Mandala V3 offers:

- 4 Surface Trigger Zones (z1 - z4)
- 9 Rim Trigger Zones (r1 - r9)
- 3 Surface Continuous Controllers (Position, Slide, Pressure)
- 9 Rim Continuous Controllers (Pressure)

FACTORY DEFAULT MIDI OUTPUT

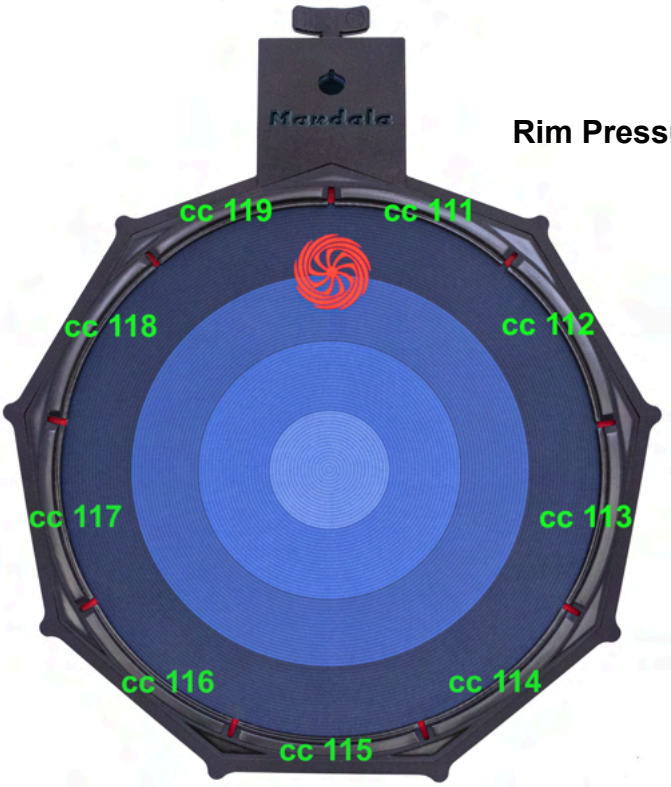


Surface and Rim Triggers
MIDI Notes (all on channel 1)

Surface Position
Surface Slide
Surface Pressure

MIDI Continuous Controllers (all on channel 1)

Rim Pressure



Playing Features

Zero Discernible Latency
Upon striking the V3 MIDI data is ready at its output ports in as little as *550 microseconds*.

V3 Output - What Happens When You Play
Upon striking the surface of the V3 it will produce a MIDI note-on with velocity, a single Position controller value (0-127, center to edge), and Pressure controller values (0-127, soft to hard). If you hold your strike the V3 will then continue to stream Pressure controller values as you press harder and softer, and it will also produce Slide controller values (0-127, center to edge) if you drag along the surface. When you disengage from the surface an associated MIDI note-off message will be sent.

Upon striking any rim of the V3 it will produce a MIDI note-on with velocity and Pressure controller values (0-127, soft to hard). If you hold your strike the V3 will then continue to stream Pressure controller values as you press harder and softer. When you disengage from any rim an associated MIDI note-off message will be sent.

Playing Tonal or Percussive
The default settings of the V3 are based on a major scale. If you are triggering tonal samples or instruments your Mandala will effectively produce melodic music. If you are triggering non-tonal percussive/drum samples or instruments you can assign them to those same MIDI notes based on however you'd like them mapped.

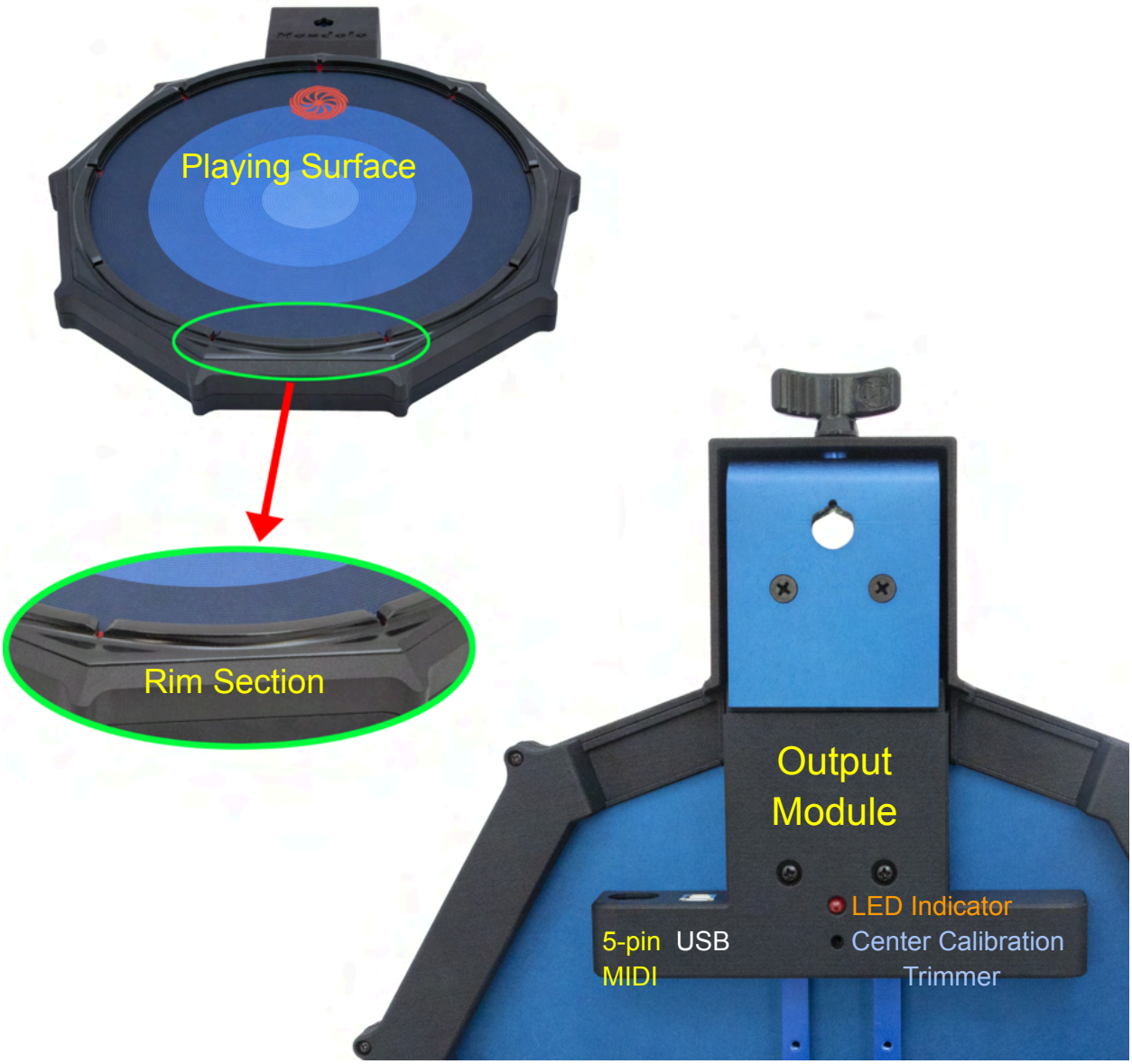
Polyphony
Any number of rim zones can be triggered simultaneously along with a single surface zone. Keep in mind that all V3 zones can be held and sustained for any amount of time, or played as fast as your fastest roll…or as hard as your hardest hit.

An interesting polyphony technique on the V3 is to play musical chords made up of multiple notes by holding one or both of your sticks flat above the pad and then striking downward onto two to four rim zones at the same time.

MPE (MIDI Polyphonic Expression)
Because the Mandala V3 has four surface trigger zones with continuous surface slide and pressure controllers as well as nine rim trigger zones with rim pressure controllers the pad can be configured to work with many MPE sound sources. See *Factory Presets.*

Squeeze/Press
You can hold any zone of the Mandala V3 with sticks or fingers. The technique of holding a note with your fingers is very straightforward. When holding a note with a stick be sure to bury the stick with no rebound on your initial strike so you only produce a single note. You'd be surprised at how easily the tip of a drumstick rebounds completely off of any surface and then strikes it multiple times until you can't even hear the final strike.

THE V3 PAD



Playing Surface - Velocity, Position, and continuous Pressure and Slide sensitive trigger area

Rim Sections - Velocity and continuous Pressure sensitive trigger zones

Output Module - Interchangeable cartridge currently offering 5-pin MIDI and USB MIDI ports

USB - Connect to any USB MIDI piece of equipment, or to a power supply when using 5-pin MIDI

5-pin MIDI - Connect to a MIDI input port on any piece of gear

LED Indicator - Shows solid red upon a successful power up

Center Calibration Trimmer - For fine tuning the center zone boundary. See *Troubleshooting*

MANDALA V3 UTILITY APP *(not required)*

If you would like to make adjustments to your V3 default configuration you can run the browser-based V3 Utility app. The app is compatible with WebMIDI capable browsers like Chrome and Edge. Using the Utility app is not required since the V3 default out-of-the-box settings will suffice for most players.

When you connect a V3 over USB the Utility app will read the pad's internal settings and display them on the screen. Any changes you make in the app will instantly be saved in the V3's internal memory. The Utility app does not need to be open to operate the V3.

Open the V3 User Manual

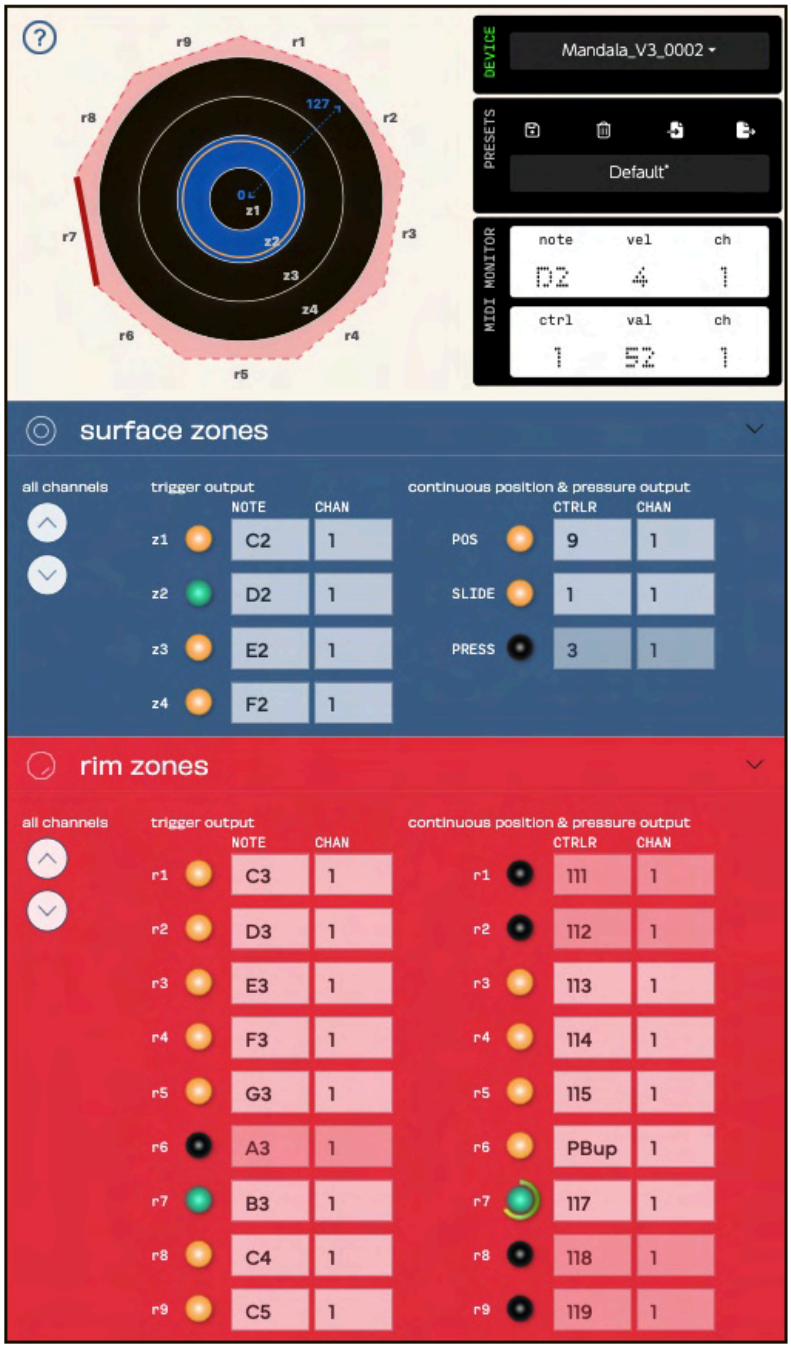
Monitor the V3 graphic display to see which zones you are hitting and to see your Position and Slide Controllers in action

Turn Surface strike zones (z1-z4) on/off and adjust which MIDI notes they output and which MIDI channels they transmit on

Monitor Surface zone hits

Turn Rim strike zones (r1-r9) on/off and adjust which MIDI notes they output and which MIDI channels they transmit on

Monitor Rim zone hits



Choose a V3

Save/Load overall pad presets and export/import your preset collection to/from other computers

Monitor the MIDI data coming from your pad

Turn Surface continuous controllers (Position/Slide/Pressure) on/off and adjust their controller numbers (0-127, Aftertouch, PB down, PB up) and which MIDI channels they transmit on

Monitor Surface Pressure controller

Turn Rim continuous controllers (Pressure) on/off and adjust their controller numbers (0-127, Aftertouch, PB down, PB up) and which MIDI channels they transmit on

Monitor Rim Pressure controllers

Access the Mandala V3 Utility app at: http://utility.mandalav3.com

TROUBLESHOOTING / TIPS & TRICKS

Connection issues - If your Mandala V3 is not showing up in the MIDI window of Audio MIDI Setup (MacOS) or under Sound, video & game controllers of Device Manager (Windows) when you connect it over USB please disconnect then try all USB ports on your computer because not all USB ports use the same circuitry. If you are connecting through any type of USB hub please make sure it is a powered USB hub.

Pad is not responding as expected - *Do not press anywhere on the Mandala V3 surface or rims while it is powering up and connecting.* The Mandala V3 is as sensitive as possible because it calibrates itself to its current environment while it is powering up. Simply disconnect and reconnect the V3 from USB in order to correct the issue.

- If the surface of your pad is not perfectly flat just run your hand across the surface while pressing and flattening the playing surface.

- If any rim on your pad isn't responding as expected or if hitting one rim hard is triggering more than one rim you can mechanically recalibrate those rim sections by flexing them up and back away from the center of the pad a few times and then disconnecting and reconnecting USB. The rims are strong. Give them a good flex. See image to the right:

You prefer the Surface to be more or less sensitive to trigger - If you would like to adjust the threshold of strike force required to produce the lightest possible trigger from your pad's surface you can option(alt)-click where it says 'surface zones' in the V3 Utility app and a '**surface threshold**' setting will appear. The lower you set this number the softer you can tap the surface in order to trigger it. Option(alt)-click where it says surface zones' to then hide the '**surface threshold**' setting.

Surface strike force adjustment for full velocity - If you would like to adjust the maximum strike force required to produce a full velocity (127) trigger output from the surface you can

option(alt)-click where it says ‘surface zones’ in the V3 Utility app and a ‘**surface damping**’ setting will appear. The higher you set this number the harder it will be to produce a full velocity trigger. Option(alt)-click where it says ‘surface zones’ to then hide the ‘**surface damping**’ setting.

You prefer the Rims to be more or less sensitive to trigger - If you would like to adjust the threshold of strike force required to produce the lightest possible trigger from your pad’s rims you can option(alt)-click where it says ‘rim zones’ in the V3 Utility app and a ‘**rim threshold**’ setting will appear. The lower you set this number the softer you can tap the rims in order to trigger them. Option(alt)-click where it says ‘rim zones’ to then hide the ‘**rim threshold**’ setting.

Rim strike force adjustment for full velocity - If you would like to adjust the maximum strike force required to produce a full velocity (127) trigger output from the rims you can option(alt)-click where it says ‘rim zones’ in the V3 Utility app and a ‘**rim damping**’ setting will appear. The higher you set this number the harder it will be to produce a full velocity trigger. Option(alt)-click where it says ‘rim zones’ to then hide the ‘**rim damping**’ setting.

I can’t hold a trigger with a stick strike - You’d be surprised at how easily and quickly the tip of a drumstick rebounds completely off of any surface and then strikes it multiple times until the final strike is so soft you can’t even hear it. Practice burying the stick when you hit the surface or a rim in order to keep a high velocity hit sustained until you release it. You can get the hang of it pretty quickly. Try holding a hit with a finger strike as a test.

The Utility app is acting strange - If there is a communication hiccup between your pad/s and the Utility app, just like with a website click the refresh/reload button in your browser and you should be right back where you belong.

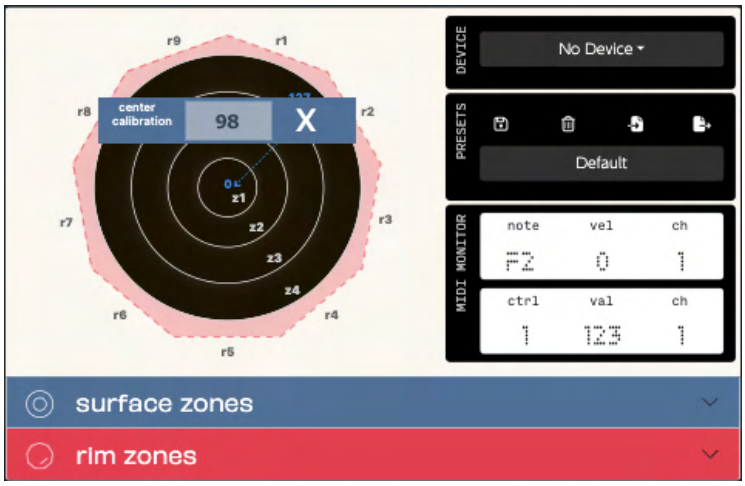
I have multiple Mandala V3’s and they’re all triggering the same sounds - You will want to open the V3 Utility app (**http://utility.mandalav3.com**) with all of your pads connected over USB and either:

- Set the trigger outputs (NOTEs) of all the zones (z1-z4 and r1-r9) of each drum to be different from each other

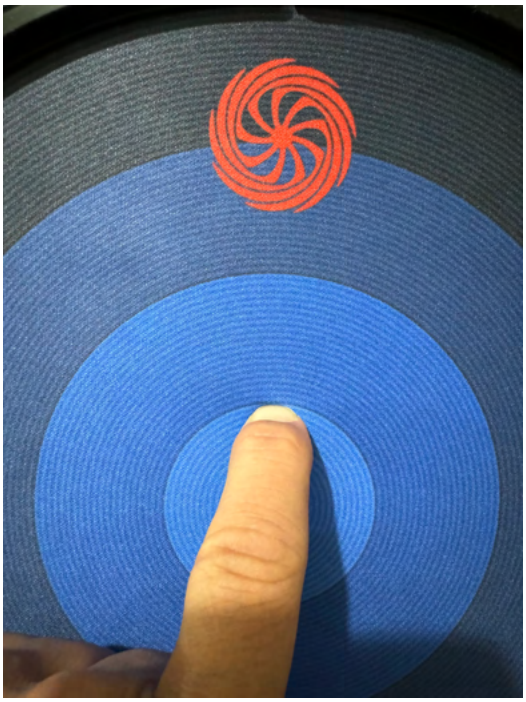
or

- Set the MIDI channels (CHANs) of all the zones (z1-z4 and r1-r9) of each drum to be different from each other. The ‘all channels’ UP and DOWN arrows are a quick way to do this

The center surface zone is not triggering, or surface zone strikes don’t match the surface zone graphics - In this case you will use a small phillips screwdriver to manually adjust the Center Calibration Trimmer located on the Output Module under the pad:



- Option(alt)-click anywhere in the circular center zone (z1) of the V3 graphic display in the V3 Utility app to put your V3 into ‘Center Calibration Mode’. A ‘**center calibration**’ readout will appear.
- Insert a small phillips screwdriver up into the Center Calibration Trimmer hole on the Output Module on the bottom of the drum
- With your other hand press and hold the tip of your finger at the boundary of z1 and z2 exactly at the location in this picture:



- Continue to hold that spot while you spin the small screwdriver until the ‘**center calibration**’ readout says 104.
- Stop pressing on the surface of the pad
- Click ‘X’ next to the ‘center calibration’ readout to exit ‘Center Calibration Mode’
- Tap your pad from z1 to z2 and watch the drum graphic in the Utility app light up as you tap. If crossing the z1-z2 boundary on the graphic doesn’t match your surface taps then re-enter Center Calibration Mode and adjust accordingly.

APPENDIX

FACTORY PRESETS

Trigger Map (Default) (all MIDI channel 1)

SURFACE:

Zone	Note
z1	C2 (48)
z2	D2 (50)
z3	E2 (52)
z4	F2 (53)

Controller	Number
Position	cc 9
Slide	cc 1
Pressure	cc 3

RIMS:

Zone	Note	Pressure Controller
r1	C3 (60)	cc 111
r2	D3 (62)	cc 112
r3	E3 (64)	cc 113
r4	F3 (65)	cc 114
r5	G3 (67)	cc 115
r6	A3 (69)	cc 116
r7	B3 (71)	cc 117
r8	C4 (72)	cc 118
r9	C5 (84)	cc 119

Percussion Map (all MIDI channel 1)

SURFACE:

Zone	Note	
z1-z4	D1 (38)	(Acoustic Snare)

Controller	Number
Position	OFF
Slide	OFF
Pressure	OFF

RIMS:

Zone	Note			Pressure Controller
r1	G1	(43)	(High Floor Tom)	OFF
r2	F1	(41)	(Low Floor Tom)	OFF
r3	A#1	(46)	(Open Hi-Hat)	OFF
r4	F#1	(42)	(Closed Hi-Hat)	OFF
r5	D#2	(51)	(Ride Cymbal)	OFF
r6	C1	(36)	(Bass Drum)	OFF
r7	C#1	(37)	(Side Stick)	OFF
r8	C2	(48)	(Hi-Mid Tom)	OFF
r9	B1	(47)	(Low-Mid Tom)	OFF

MPE map

SURFACE:

Zone	Note
z1	C2 (48) (ch 2)
z2	D2 (50) (ch 2)
z3	E2 (52) (ch 2)
z4	F2 (53) (ch 2)

Controller	Number
Position	OFF
Slide	cc 74 (ch 2)
Pressure	Aftertouch/Channel Pressure (ch 2)

RIMS:

Zone	Note	Pressure Controller
r1	C3 (60) (ch 3)	Aftertouch/Channel Pressure (ch 3)
r2	D3 (62) (ch 4)	Aftertouch/Channel Pressure (ch 4)
r3	E3 (64) (ch 5)	Aftertouch/Channel Pressure (ch 5)
r4	F3 (65) (ch 6)	Aftertouch/Channel Pressure (ch 6)
r5	G3 (67) (ch 7)	Aftertouch/Channel Pressure (ch 7)
r6	A3 (69) (ch 8)	Aftertouch/Channel Pressure (ch 8)
r7	B3 (71) (ch 9)	Aftertouch/Channel Pressure (ch 9)
r8	C4 (72) (ch 10)	Aftertouch/Channel Pressure (ch 10)
r9	C5 (84) (ch 11)	Aftertouch/Channel Pressure (ch 11)

have fun
do more
be great