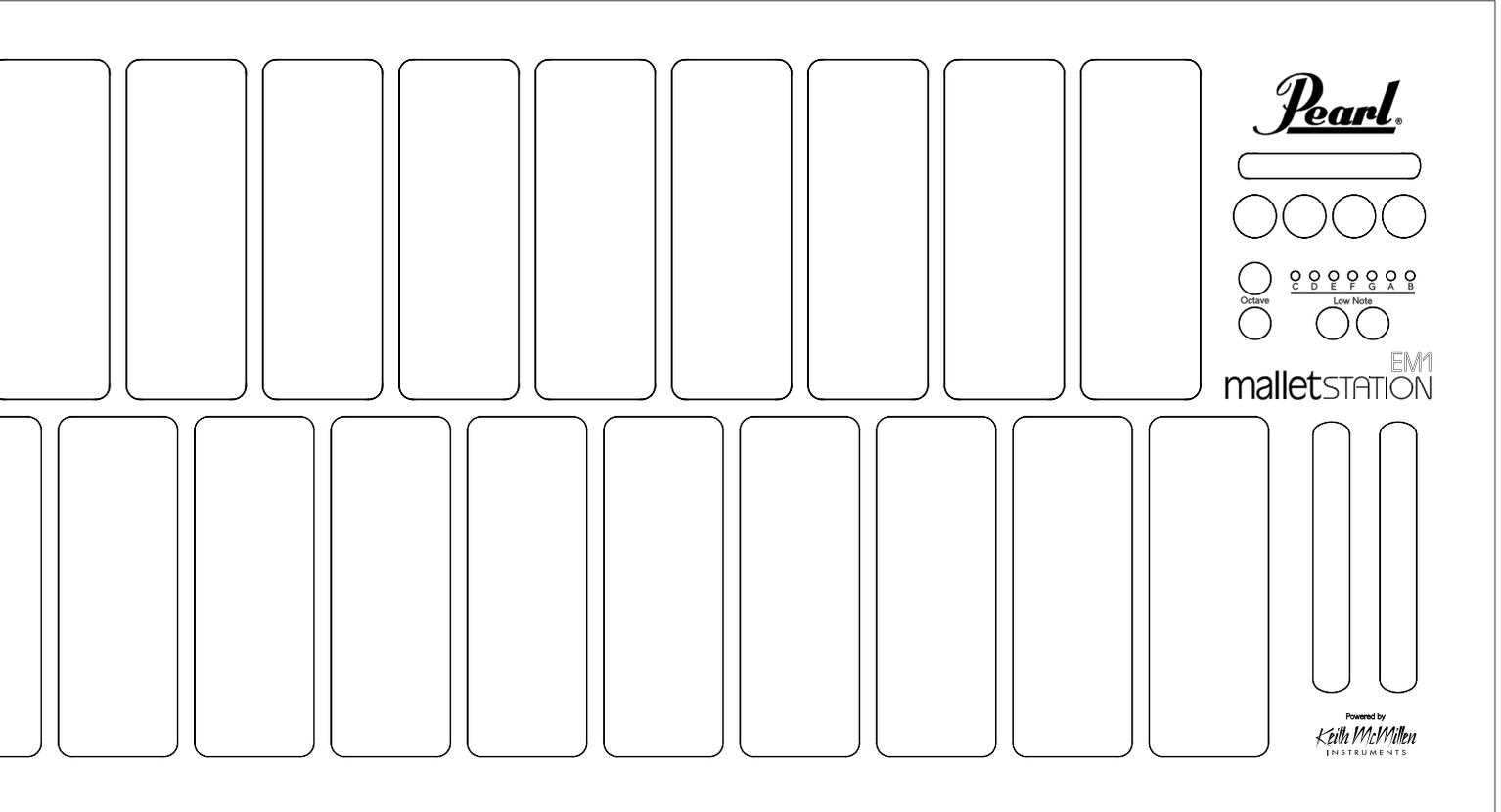


*Pearl*<sup>®</sup>



# malletSTATION™

EM1

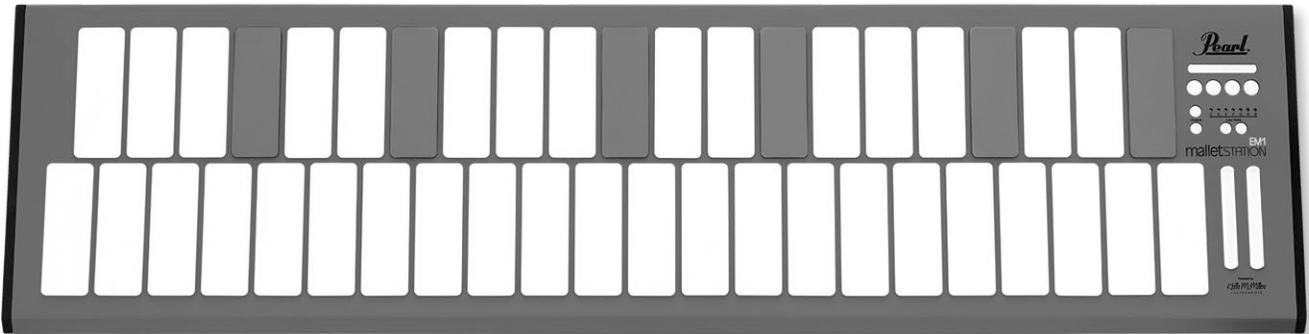
## USER MANUAL

VER 1.00

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# INTRODUCTION TO THE PEARL EM1 malletSTATION



Thank you for purchasing the Pearl EM1 malletSTATION mallet keyboard controller! This 3 octave adjustable range USB MIDI mallet controller is designed to easily integrate with your PC, Mac, iOS, or Android device. malletSTATION features soft silicone keys that give you the feel of a keyboard percussion instrument in a portable and versatile format. Designed for a wide range of players, malletSTATION offers 3 assignable faders and 4 assignable buttons, plus 3 assignable pedal inputs for ultimate control of your software.

Though malletSTATION is a class-compliant USB MIDI device and features true plug-and-play operation, we recommend that you spend a few minutes reviewing this manual to learn about proper operation and functions.

## 1.1 WHAT'S IN THE BOX

- EM1 malletSTATION Unit  
3 Octave Adjustable Range USB MIDI Mallet Controller
- 3m USB Cable  
Use to connect malletSTATION to a USB host (computer, tablet, etc.)
- 6 Gap Caps  
Use the six included gap caps as visual references for the range as set by the low note button
- Quickstart Guide  
Contains link to registration, video tutorials, manuals, and software downloads

## 1.2 SYSTEM REQUIREMENTS

### 1.2.1 - malletSTATION Hardware Requirements

#### Mac OS

Mac OS 10.6 (or greater)  
Intel Core 2 Duo (or greater)  
USB 2.0 (or greater) port

#### Windows

Windows 7, 8, & 10  
USB 2.0 (or greater) port

### 1.2.2 - Editor Software Requirements

#### Mac OS

Mac OS 10.9 or later  
Intel Core 2 Duo (or greater)  
USB 2.0 (or greater) port  
100 MB free hard disk space

#### Windows

Windows 7, 8, & 10  
64 bit  
2.5 GHz processor (or greater)  
4 GB RAM (or greater)  
USB 2.0 (or greater) port  
100 MB free hard disk space

#### Web Editor

Chrome, Opera, or other Web MIDI capable web browser on Mac/PC. To check compatibility with Web MIDI, go here:  
<http://caniuse.com/#feat=midi>

## GETTING STARTED

This section covers information that will help you get started with the Pearl malletSTATION. We will introduce the malletSTATION hardware, discuss how to connect your malletSTATION to your device, and go over basic operation of the device and the editor. More in-depth information is available in the later sections of the manual.

### 2.1 A QUICK MIDI PRIMER

MIDI (Musical Instrument Digital Interface) is an industry standard music technology protocol that connects products from many different companies including digital musical instruments, computers, tablets, and smartphones. MIDI is used every day around the world by musicians, DJs, producers, educators, artists, and hobbyists to create, perform, learn, and share music and artistic works.

The EM1 malletSTATION is what is known as a MIDI Controller, meaning it does not have any built-in sounds on the unit itself. The sounds are generated through your device of choice, including Mac, PC, iOS, or Android devices. Any app capable of receiving MIDI will work with malletSTATION.

In most cases, you can plug your headphones or speakers directly into the headphone jack of your device being used as a sound source. An external audio interface is recommended for best performance but is not typically required.

### 2.2 SUPPORT

For the most up to date information about this product, including the EM1 malletSTATION editor software, sound library downloads, manuals, system requirements, support, and product registration, please visit [pearlmalletstation.com](http://pearlmalletstation.com). We highly recommend bookmarking this site to always have access to the software editor and firmware updates.

### 2.3 RECOMMENDED SOFTWARE INSTALLATION

**Presonus Studio One Artist:** Software keys for Presonus Studio One Artist, as well as malletSTATION specific sound libraries for Studio One are included for Mac and PC. Register your device at [www.pearlmalletstation.com](http://www.pearlmalletstation.com) to get the product keys and installation information.

**Pearl malletSTATION Editor:** The malletSTATION Editor Software or Web Editor will allow you to make changes to the malletSTATION's MIDI Configuration, as well as change things such as dampening/aftertouch mode, preset gain, and save the default boot up mode of the unit.

### 2.4 CONNECTING YOUR MALLESTATION

The EM1 malletSTATION is powered through a USB connection to your computer or mobile device. We recommend connecting malletSTATION to either a port directly on the device, or through a powered USB hub. This USB cable provides the power as well as the MIDI data to and from your computer or mobile device.

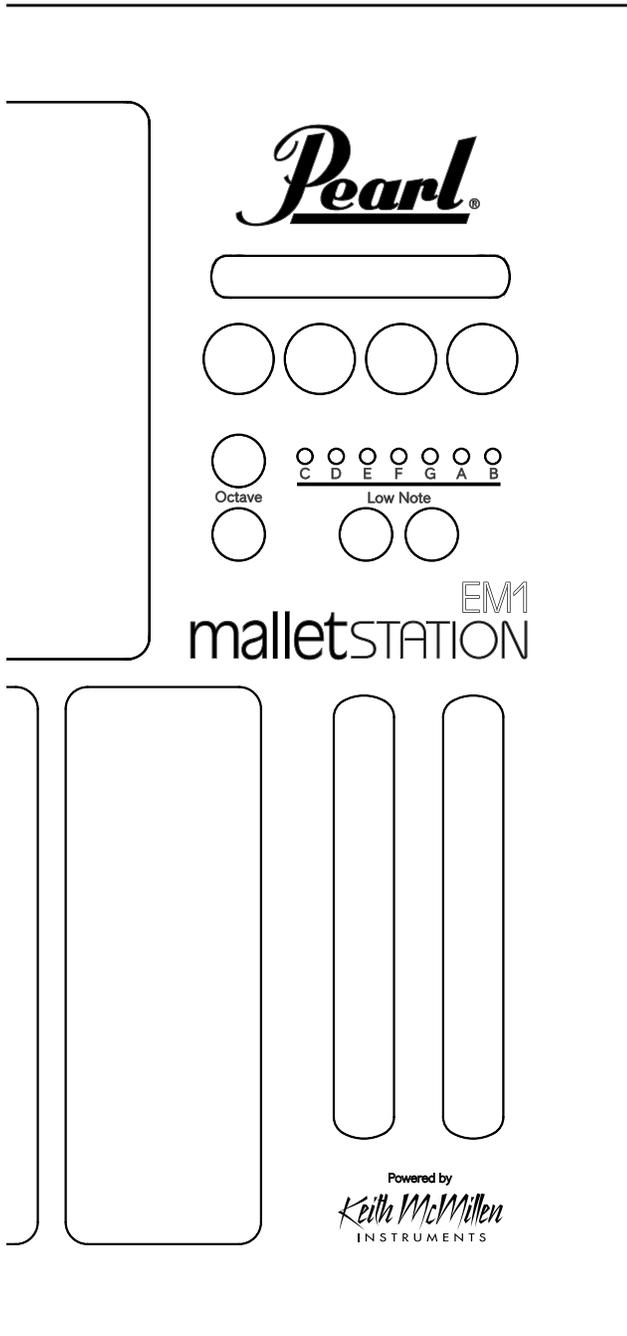
**NOTE:** Connecting the EM1 malletSTATION to an iOS device requires Apple's Lightning to USB Camera Adapter, sold separately. Android users will need to source the appropriate OTG cable.

### 2.5 IMPORTANT!

When plugging up malletSTATION, do not have any objects (such as music, mallets, or headphones) sitting on top of malletSTATION. The unit calibrates the bar sensors each time it is plugged in. Also ensure the unit is in the same vertical and horizontal orientation that will be used while playing before plugging it up.



## GETTING STARTED (continued)



### 2.7 THE EM1 malletSTATION UNIT

You can interact with the malletSTATION via the bars, the gap caps, the octave buttons, the low note buttons, four assignable buttons, three assignable faders, and three assignable pedal inputs. The assignable interface elements can be programmed to send a variety of MIDI data using the malletSTATION Editor.

#### KEY FEATURES - TOP PANEL

##### OCTAVE BUTTONS

There are two octave buttons on malletSTATION. These allow you to shift the range of the instrument two octaves up or down from the default position. You will see the respective button lit green for one octave, and red for two octaves.

##### LOW NOTE SHIFT

These buttons allow you to change the diatonic low note of malletSTATION. Adjust the selection to the low note that you want, and then adjust the Gap Caps to represent the accidental positions of the selected range. This will default to F-F each time the unit is powered on, unless changed in the software editor. (See page 19 for a gap cap placement chart of all 7 low note assignments)

##### 3 ASSIGNABLE FADERS

By default, the 3 assignable faders will be set to the following commands\*:

- Vertical Fader 1 - Modulation
- Vertical Fader 2 - Pitch Bend
- Horizontal Fader - Assignable (cc20)

##### 4 ASSIGNABLE BUTTONS

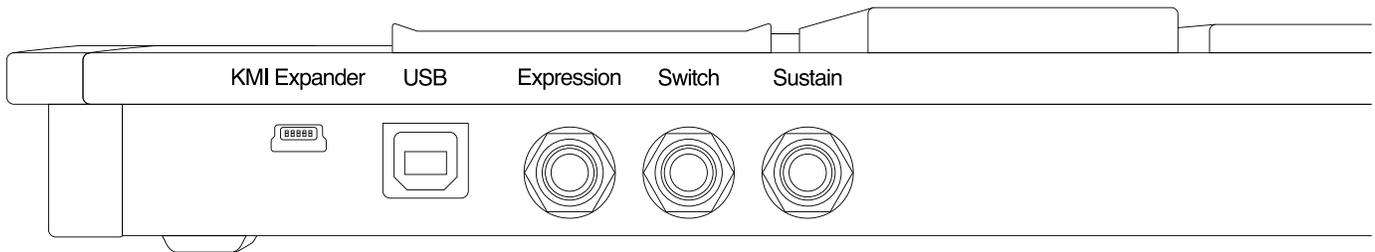
By default, the 4 assignable buttons will be set to the following commands\*:

- Button 1 - MIDI Note 64, Channel 10
- Button 2 - MIDI Note 65, Channel 10
- Button 3 - MIDI Note 66, Channel 10
- Button 4 - MIDI Note 67, Channel 10

\*These assignments can be easily changed in the software editor.

## GETTING STARTED (continued)

### KEY FEATURES - JACK PANEL



#### KMI EXPANDER PORT

This port is reserved for use with Keith McMillen Instruments' MIDI Expander. (See page 10)

**NOTE:** this is NOT a standard USB connection, and cannot be used for connection to a computer.

#### USB PORT

This port is used to connect the malletSTATION to your computer or mobile device, and transmits both power and MIDI information.

#### 3 ASSIGNABLE PEDAL INPUTS

By default, the 3 assignable pedal inputs will be set to the following commands\*:

- Expression - Expression (cc11)
- Switch - Assignable in software (cc21)
- Sustain - Internal Sustain (will not send cc64 by default)

The sustain and switch jacks can accept a standard piano-style sustain pedal, and the expression jack requires a continuous control pedal (expression pedal).

*\*These assignments can be easily changed in the software editor.*

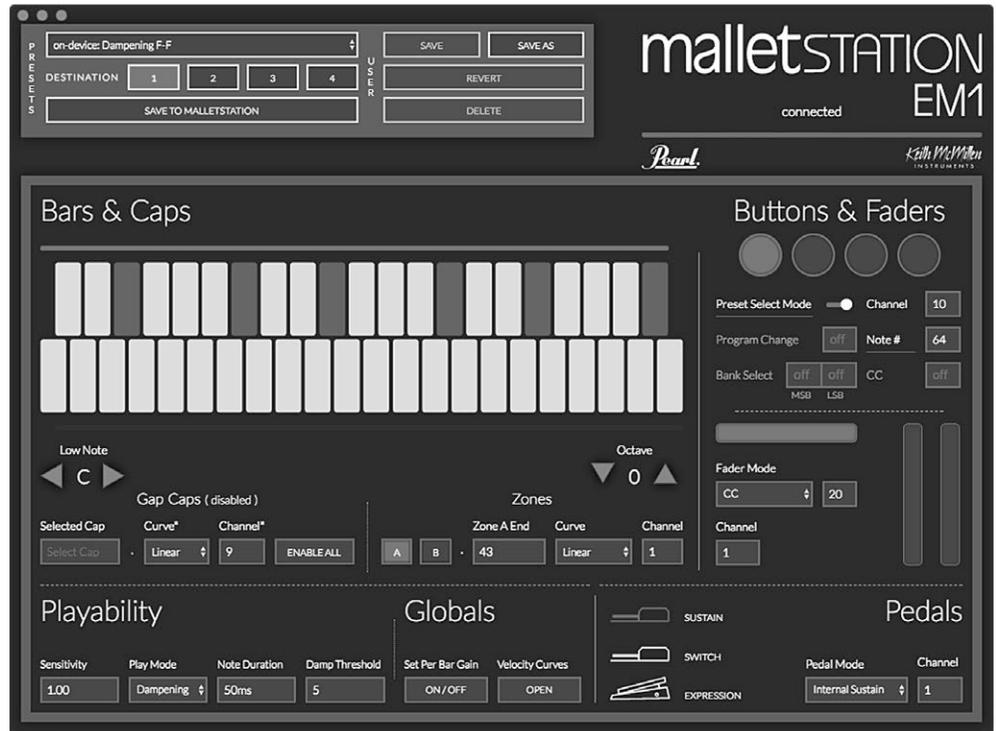
**NOTE:** The polarity of the sustain pedal sometimes needs to be switched due to differing implementation standards. If you notice that when your pedal is in the up position that the notes are ringing, reverse the switch on your pedal.

## GETTING STARTED (continued)

### 2.8 THE EM1 malletSTATION SOFTWARE PACKAGE

#### 2.8.1 Editor Configuration Software

Many of the more advanced options and settings on the malletSTATION can be accessed through the Software Editor available at [www.pearlmalletstation.com](http://www.pearlmalletstation.com). Both an online, web browser version and a separate downloadable version are available. Most casual users will not need to install this editor, but we recommend bookmarking it for future use.



The malletSTATION Editor runs on Mac/PC as a standalone app, and also in WebMIDI capable browsers such as Google Chrome and Opera as a web version of the editor (currently, there are no Web MIDI browsers on iOS). The Editor allows you to customize nearly all aspects of how the malletSTATION responds to user input. More information can be found in the **malletSTATION Editor** section of this manual. (See page 11)

If using the Web Editor, you will need to give the browser permission to control your MIDI device. This is simply a security precaution when sending information to a MIDI device.

#### 2.8.2 Presonus Studio One Artist

Included with the purchase of the Pearl EM1 malletSTATION is a license for Presonus Studio One Artist 4. This powerful Mac/PC application contains many different sounds and instruments to explore. You can also use this application to record your performances, as well as edit both MIDI and audio. A template is included with Studio One Artist 4 for use with malletSTATION. Please see the separate instructions for installing Studio One that come with the software.

#### **Windows Users:**

If using Chrome versions 58 - 59, you must disable a flag in the browser, go to: **chrome://flags/#enable-midi-manager-dynamic-instantiation** and set it to "disabled" and then restart your browser.

#### 2.8.3 Pre-Built Templates

Pre-Built templates are available for many of the standard audio applications (Apple Mainstage, Presonus Studio One, Ableton Live, etc.) at [www.pearlmalletstation.com](http://www.pearlmalletstation.com). The installation of Presonus Studio One Artist contains a template containing a sampling of chromatic percussion instruments.

## IN-DEPTH FEATURES OVERVIEW

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### **3.1 EXPRESSIVITY AND FLEXIBILITY**

The EM1 malletSTATION can be configured to send a wide variety of MIDI Data from its bars, buttons, faders, and external pedal inputs.

#### **3.1.1 Bars**

The malletSTATION can be configured to play in any diatonic range (C-B) as well as in a range of octaves. With the adjustable low note assignment, you can quickly adapt the instrument to fit any musical situation. The main keyboard can be split into two different Zones (A and B) on different MIDI channels. These Zones can overlap as well, allowing the performer to create layers. The assignable gap caps can also be configured to send MIDI notes on any MIDI channel, giving you 43 total bars worth of notes.

The playing surface is weather resistant, made of durable soft silicone bars. The bars are highly responsive to pressure and velocity, allowing you to play the malletSTATION with mallets, sticks, or any other implement that you prefer.

#### **3.1.2 Top Panel Controls**

There are 4 assignable buttons, 3 assignable faders, and 3 external pedal inputs to send notes, continuous control, and program change/bank select messages. You can configure these in a variety of ways, allowing you to interact with your music software and hardware of choice.

#### **3.1.3 Playing Techniques**

There are two different Play Modes configurable on malletSTATION—Dampening and Aftertouch. Dampening Mode is active by default. On sound sources that use a pedal for sustain, you can use your mallets to dampen any previously sustained note.

Dampening Mode supports both dampening and dead strokes, allowing for traditional mallet techniques to be used with little to no adjustment by the player. There are dampening threshold adjustments in the malletSTATION Editor to set the dynamic threshold to activate a dampened note rather than a note on message.

Aftertouch Mode uses the pressure value on the keys to allow you to control various parameters in your software using the “channel pressure” MIDI parameter. This can be switched on in the malletSTATION Editor. You can also use the Gap Caps to send Aftertouch information, even if the Gap Caps are configured to not send MIDI note information.

## IN-DEPTH FEATURES OVERVIEW (continued)

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### **3.2 ADVANCED CONNECTIVITY AND COMMUNICATION**

The EM1 malletSTATION is a class-compliant MIDI device, which means you can connect it to just about anything that can accept MIDI information. Using the included USB cable you can connect to a computer running any modern OS (MacOS, Windows, iOS, Android, and Linux) that supports the class-compliant USB MIDI standard.

You can also connect to the optional MIDI Expander (using the port marked 'KMI Expander') to communicate with MIDI hardware using traditional 5 pin MIDI connections.

---

#### **3.2.1 The KMI MIDI Expander (optional)**

The KMI MIDI Expander allows the malletSTATION to communicate with traditional 5 pin MIDI hardware. Using a mini USB cable, connect the mini USB port on the malletSTATION marked 'KMI Expander' to the Expand port of the MIDI Expander. Provide power using a USB power supply into the Power USB B port on the Expander (most USB power supplies provide 5V and plenty of amps, but be sure that the power supply being used is rated for 5V and at least 500 mA). No further configuration is needed, the MIDI Expander output mirrors the MIDI data that is sent over USB. Simply connect the MIDI Out of the Expander to the MIDI input of your synthesizer/MIDI hardware. The MIDI out LED will light yellow indicating that the Expander is passing MIDI data.

#### **3.2.2 Preset Recall**

There are 4 preset slots on the malletSTATION that can be recalled either through buttons (Preset Select Mode, see more information in the malletSTATION Editor section of the manual), or through Program changes sent back to the unit. Presets can be selected by sending a Program Change message back to the malletSTATION from software or hardware. Simply send a Program Change message 0-3 (0=Program 1, 1=Program 2, 2=Program 3, 3=Program 4) back to the malletSTATION on MIDI Channel 10 to select one of the 4 onboard presets.

#### **3.2.3 External LED control**

The LEDs of the faders and buttons can be controlled remotely by sending MIDI data back to the malletSTATION. All remote messages should be on channel 10.

To light the LEDs on the faders as they would if you moved your finger across them, send CC 30, 31, and 32, to control the horizontal fader, the left vertical fader, and the right vertical fader, respectively. You can address individual LEDs of the faders by sending MIDI notes 0-11 for the horizontal fader, 12-23 for the left vertical fader, and 24-35 for the right vertical fader.

Control the preset button LEDs with notes 36-43.

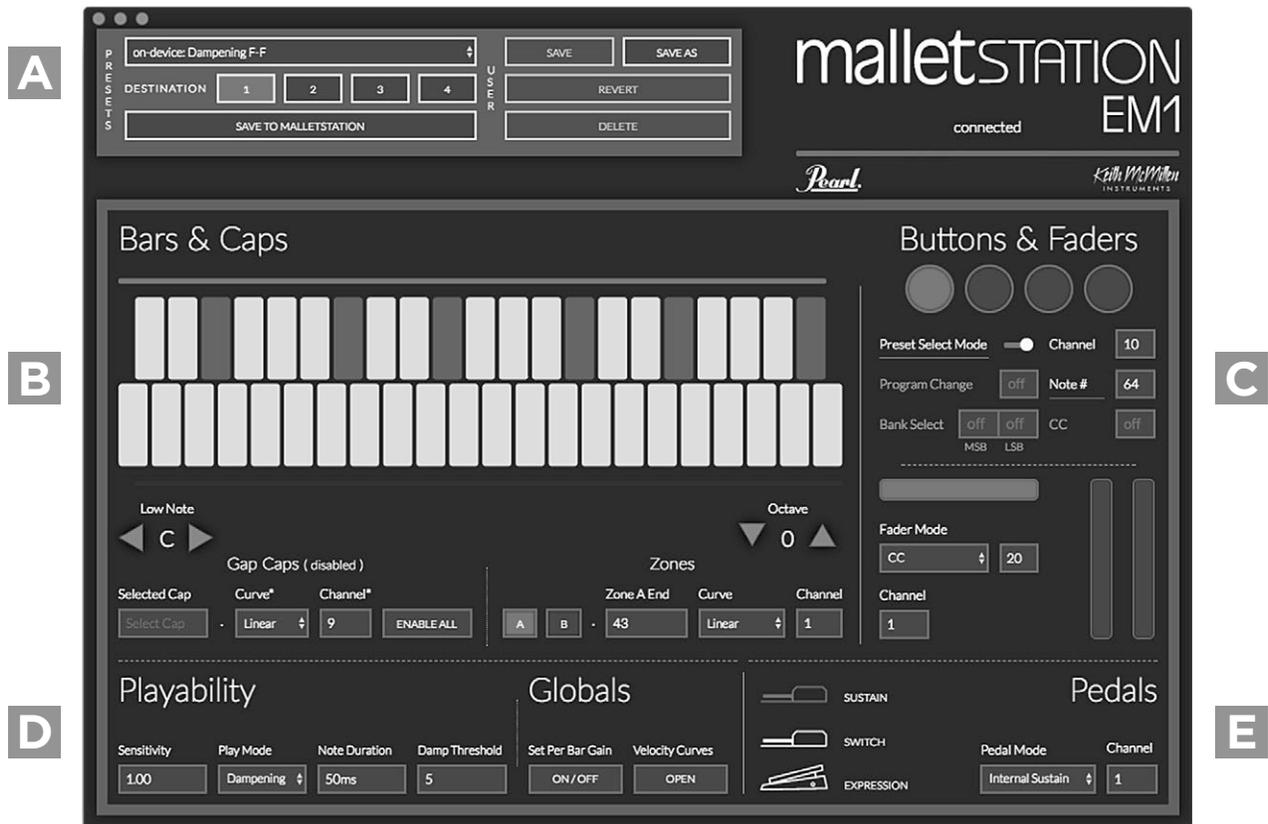
Control the Octave button LEDs with notes 44-47.

Control the Low Note Button LEDs with notes 48-51.

Control the Low Note Indicator LEDs with notes 52-62.

## malletSTATION EDITOR

This section covers the malletSTATION Editor. It will cover the basic operation and features of the Editor, along with any differences between the desktop and web editors.



### 4.1 THE EDITOR

The malletSTATION Editor is what is used to define what MIDI data your malletSTATION will send, how it will send the data, and a variety of other user settings.

#### **A** 4.1.1 The Preset Section

The Preset section allows you to save, recall, and send presets to the malletSTATION. The malletSTATION can hold up to 4 presets. The Preset saved in slot number 1 is what is recalled whenever malletSTATION is plugged in.

Select a preset with the menu at the top. There are buttons for

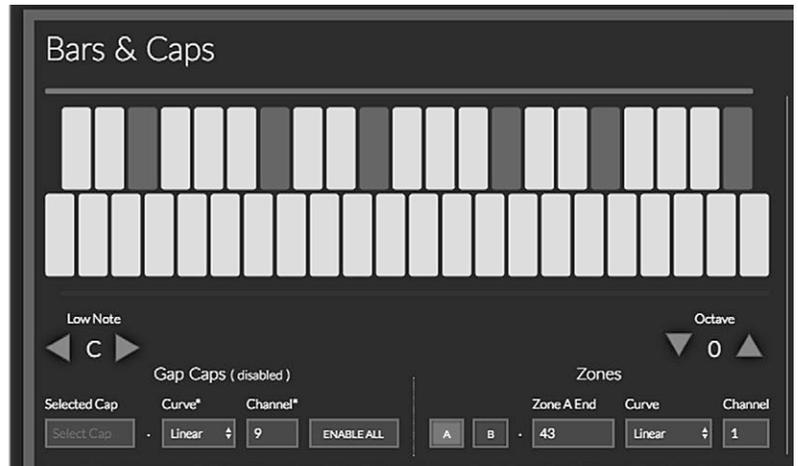
choosing a destination on the malletSTATION, sending the preset to a slot on the malletSTATION, saving the preset, saving the preset as a copy, reverting the preset, and deleting the preset. When saving as a copy, preset names are limited to 32 characters.

The Editor can store an unlimited amount of presets, and you can import and export presets using the File Menu (preferences in the Web Editor). You can also import user presets by dragging and dropping .json files onto the Presets box. As long as there are no naming conflicts or duplicates, the preset will be imported.

## malletSTATION EDITOR (continued)

### **B** 4.1.2 The Bars and Caps Section

The Bars and Caps section of the Editor is where you can edit how the playing surface is laid out; what octave it is in, the lowest note, as well as any keyboard splits (zones) you'd want to use.



#### Low Note

Sets the low note of the malletSTATION anywhere from C to B.

#### Octave

Sets the octave of the malletSTATION with a range of +/- 2 octaves.

#### Gap Caps

The editable parameters of the Gap Caps are the following:

1. Can be assigned to any MIDI note.
2. Can assign a different velocity curve to adjust the response of the Gap Caps.
3. Can assign any MIDI channel to the Gap Caps (all Gap Caps use the same MIDI channel).
4. Can disable all the Gap Caps.
5. Can enable/disable a single Gap Cap or all Gap Caps. Enabling from a disabled state will use the default note values for Gap Caps.

#### Assigning a Gap Cap:

1. Click on the Gap Cap desired on the keyboard layout image
2. Adjust the note under "Selected Cap" in the Gap Cap section (use your keyboard arrow keys up and down to easily adjust).

#### Zones

You can setup two zones (splits) on the malletSTATION.

#### Assigning a Zone:

1. Select which zone you are editing, A or B.
2. Select where zone A ends, and zone B begins.
3. Assign a curve to each zone.
4. Assign a MIDI channel to each zone.

You can also use the sliders above and below the Bars and Caps graphic to adjust the zone beginning and end points. Dragging zones to overlap will result in a layer rather than a split.

Setting Zone A to end at 0, or setting Zone B to end above 43 will turn off the respective zone. All MIDI notes will be sent from a single zone in this case.

## malletSTATION EDITOR (continued)

### **C** 4.1.3 The Buttons and Faders

Here you can define the behavior of the buttons and the faders. Select a button or fader to edit by clicking on it. The control being edited will be highlighted in blue.

#### Buttons

The buttons can send a variety of data, and all selections can be sent simultaneously.

##### Preset Select Mode

Turn preset selection mode of the 4 internal presets on or off. When on, the buttons will select one of the four on board presets (buttons 1-4 recall presets 1-4). This is a device wide setting, and not per preset.

##### Program Change

Set a Program Change message that the button will send.

##### Channel

Select the channel any MIDI messages assigned to the button will send on.

##### Note Number

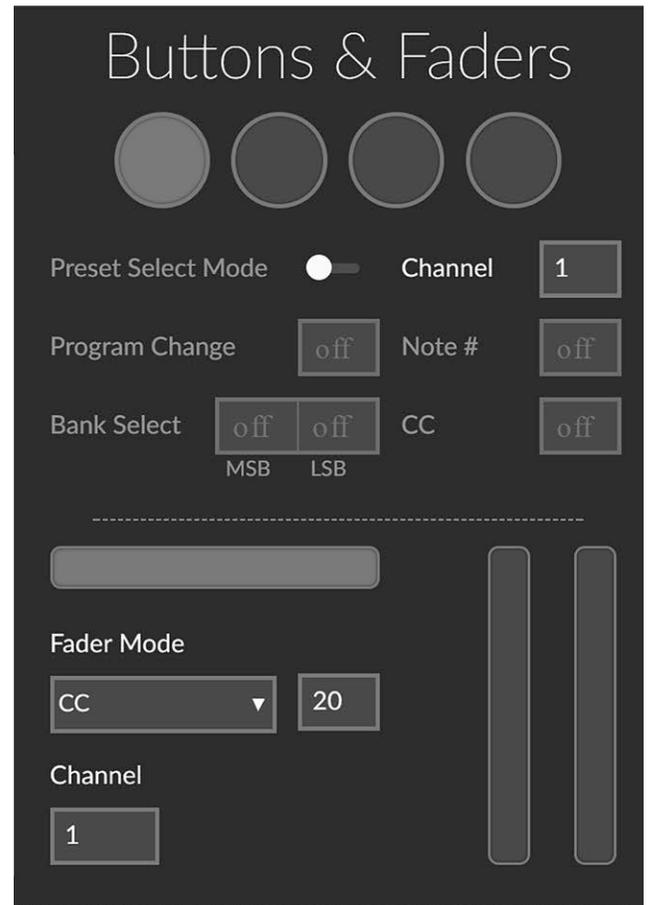
Set a MIDI note number for the button to send. (Sends 127 when pressed, 0 when released)

##### Bank Select

Set Bank Select messages that the button will send. Refer to the destination's MIDI implementation for the values needed for the MSB and LSB.

##### CC

Set a controller change (CC) number for the button to send. (Sends 127 when pressed, 0 when released)



#### Faders

The faders can be set to send a CC message, or to send pitch bend data. When set as pitch bend, it will automatically be setup to auto-center. Change the number next to CC to change the CC message being sent. The MIDI channel can also be assigned per fader.

## malletSTATION EDITOR (continued)

### **D** 4.1.4 The Playability and Globals Section

Use this section to affect how the malletSTATION responds, as well as set the Play Mode.

#### Sensitivity

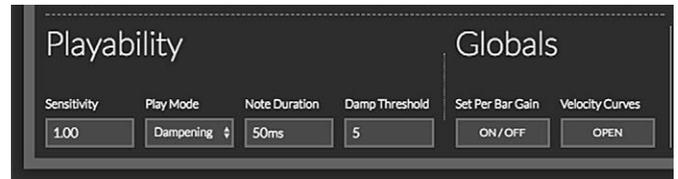
Sensitivity defines a scaling factor for the velocity values in this preset. Use this if you want to change the sensitivity of the bars. This setting is helpful if using lighter implements to scale the velocities to use the entire 0-127 range. Higher values will respond to a lighter stroke.

#### Play Mode

Set the Play Mode to be Dampening or Aftersustain. With dampening enabled you'll be able to use traditional mallet instrument techniques such as mallet dampening and dead strokes. With Aftersustain enabled you'll be able to send Aftersustain (channel pressure) data.

#### MIDI Note Duration

The MIDI Note Duration defines how long the Note On message will last before sending a Note Off while the sustain pedal is not depressed. Values range from 10 ms - 150 ms. Typically, anywhere from 50-70 ms is a good starting place.



#### Dampening Threshold

The dampening threshold defines how the malletSTATION will treat strokes in regard to dampening. As the value increases, harder hits are interpreted as dampened notes instead of strokes. Values range from 1-30.

#### Set Per Bar Gain

Set Bar Gain Mode allows you to adjust the gain of bars individually. This setting is device wide, and not per preset. Generally, there will be no need to use this feature, but can be useful if you notice one bar responding a bit louder or softer than the rest. Once you select this setting, you can click on any bar in the graphic in the bars and caps section, and set the gain in the pop up above the keyboard.

#### Velocity Curves

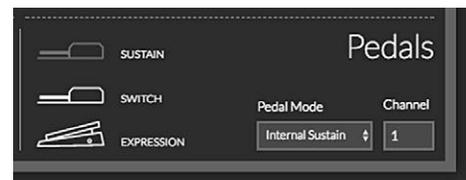
Show or hide the velocity curves to edit user curves or see the contour of the factory curves. This section does not set the curves onto the malletSTATION presets, just allows you to see the default curves and save 4 user curves that are selectable in the Bars and Caps area of the editor.

### **E** 4.1.5 Pedals

Edit the behavior of the three pedal inputs. There is a sustain pedal input, a switch pedal input, and an expression (continuous) input.

#### Pedal Mode

Use the Pedal Mode menu to select how each pedal will behave. Each pedal can control internal sustain, send an assignable CC, or do both at the same time. It is typically recommended that if you're needing the dampening functions of the unit, then you should not send MIDI Sustain (CC 64) or Both, as that overrides the Note Off message sent by the dampening feature. In certain cases you can set this in your audio software to activate a different command.



#### MIDI Channel

Set the MIDI channel that each pedal will send on with the Channel number box.

## malletSTATION EDITOR (continued)

### 4.1.6 Preferences

The Preferences button will expose some settings that can be useful. Customize the behavior of the Editor by enabling/disabling UI Sync, Tooltips, and auto-hiding slider handles.

#### UI Sync

When UI sync is on, interacting with a button/fader on the malletSTATION will select that element in the Editor.

#### Tooltips

Turned on by default, the tool tips are the popovers that describe each feature on the malletSTATION Editor. Turning this off will prevent these from popping up.

#### Autohide Slider Handles

This setting allows the Zone B and Zone A range selection slider handles to disappear when not active on the current Preset. They will reappear when the cursor moves over them.

#### Export User Presets

Export your user presets to share with other malletSTATION users, to move to a different computer, or to back them up. This is stored in a JSON file.

#### Device – Crosstalk Threshold

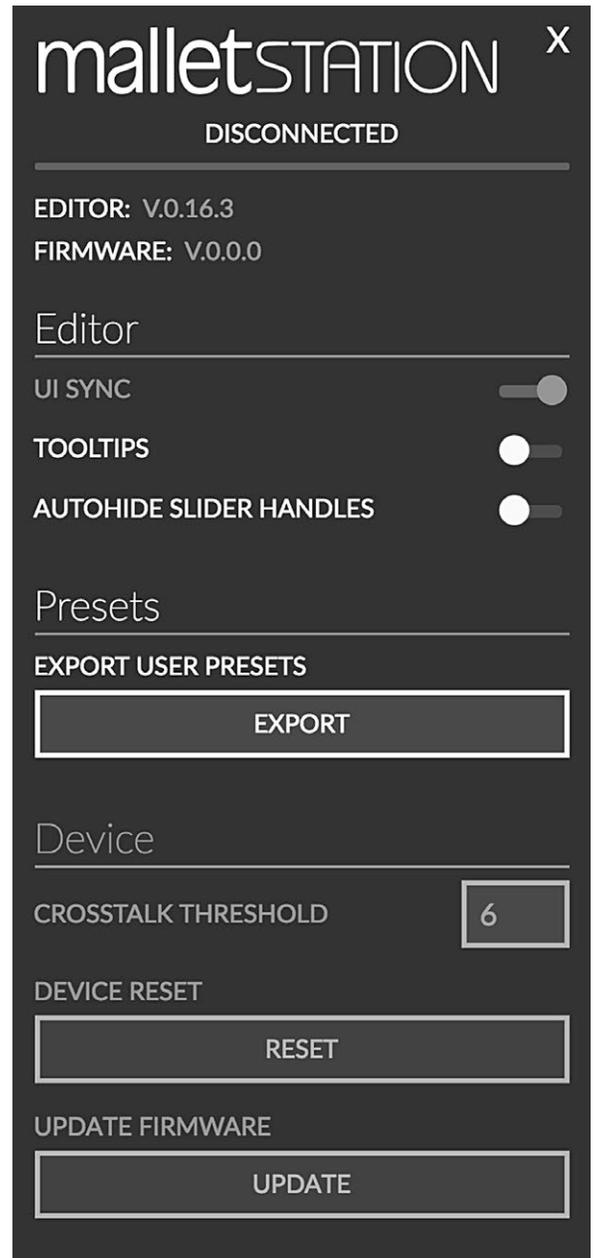
If you notice that certain notes are being cancelled out when you're playing, try lowering this threshold. If you notice that playing especially loud with heavy mallets is triggering other notes, raise this threshold. This is a device wide (global) setting.

#### Device Reset

Resets the device to factory settings.

#### Update Firmware

Use this to update malletSTATION to a newer version of the firmware, or re-install the firmware.





## malletSTATION EDITOR (continued)

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### 4.2 THE DESKTOP EDITOR

The Mac Desktop Editor will run on Mac OSX 10.9 - 10.13.  
The Windows Desktop Editor will run on Windows 7, 8, and 10.  
All of the settings in the preferences window, except for the Editor settings, will be available in the application's menu bar.  
Find the Desktop Editor at [www.pearlmalletstation.com](http://www.pearlmalletstation.com).

### 4.3 THE WEB EDITOR

Any WebMIDI capable browser will be able to successfully run the Web Editor (this currently includes Google Chrome, Opera, and Brave). The Web Editor is functionally identical to the desktop Editor, with a few minor cosmetic differences. Find the Web Editor here: <https://files.keithmcmillen.com/products/mallet-station/editor/>

### 4.4 FACTORY PRESETS OVERVIEW

The malletSTATION Editor comes with four factory presets to get you started quickly. The general settings are the following:

Preset 1 – Dampening Mode, F-F, with no Gap Caps Enabled  
(Preset 1 will be recalled whenever plugging in the device)

Preset 2 – Dampening Mode, F-F, with Gap Caps Enabled

Preset 3 – Aftertouch Mode, F-F, with no Cap Caps Enabled

Preset 4 – Dampening Mode, F-F, with Gap Caps Enabled, with MIDI Sustain 64 instead of internal sustain



## FREQUENTLY ASKED QUESTIONS

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I'm getting a delay from when I hit malletSTATION until I hear the sound in my speakers or headphones. How do I fix this?

Some computing devices have less than ideal sound cards built in for audio use. If you're having an issue with latency (a noticeable delay between the impact of your stick/mallet and the sound coming out of the device), you may need to look at adjusting audio buffer settings in your software, or potentially use an external USB audio interface. This delay is not occurring from malletSTATION, it is with the audio device or software being used. Consult your device/software manufacturer for more information on this adjustment.

I plugged in my malletSTATION and it isn't making any sound. What's wrong?

It's highly likely that nothing is wrong! The malletSTATION is a MIDI controller, which means it doesn't actually make sound on its own. Instead, it sends MIDI messages, which are used to control other sound generating software/hardware. A seemingly minor distinction, but is actually quite important to understand.

Just open up any audio software that is able to respond to incoming MIDI messages and, depending on the software, malletSTATION should start working right away. It's possible there may be more steps required to properly configure an application to respond to an attached MIDI device — please refer to the software's documentation if this is the case.

Can I use more than one malletSTATION at a time?

Yes! You can use as many malletSTATIONS as you can keep track of (up to 16). It would be helpful to put different presets on each device that send on different MIDI channels, or that send different notes and control messages to avoid confusing the software or hardware you intend to control. We typically recommend no more than 2-4 per sound source/device, due to latency issues with most sound sources when using many MIDI devices.

Do I need a computer to use my malletSTATION?

No! With the optional KMI MIDI Expander you can send MIDI data to any device that uses a 5 pin MIDI connection. You can connect to a USB host and a MIDI Expander at the same time (the data is mirrored between the two).

What implements can I use to play my malletSTATION?

The malletSTATION is able to be played with mallets, sticks, or any other implement that you prefer.

My malletSTATION is sending unexpected messages. Is something wrong?

Probably not! Be sure that the malletSTATION is in the same orientation you plan to play it in when you power it up. Also, make sure no objects are on the bars when you plug in malletSTATION, as the device auto calibrates when it boots up, and any objects (mallets, music, headphones, etc) will throw off that calibration.

How do I connect to a Mobile Device?

To connect to an iOS device, we recommend using an Apple branded Camera Connection Kit (USB to Lightning adapter). To connect to an Android device, you should use a USB OTG cable.

## FREQUENTLY ASKED QUESTIONS (continued)

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My malletSTATION won't turn on or connect to my computer.

### **1. Try a new USB cable**

One of the first (yet most often overlooked) things to try is a different USB cable, preferably one that is known to work well. When a cable goes bad it can lead to all sorts of odd behavior (flaky connections, dropped messages), or no behavior at all (won't even power on). We always recommend using the USB cable(s) that shipped with your malletSTATION. Sadly, not all USB cables are created equal.

If you are having troubles powering your malletSTATION or connecting to a computer, please make sure you are using the USB cables that came with your malletSTATION.

### **2. Try plugging into a different USB port**

It's possible that trying a different USB port on the computer may lead to a proper connection. While extremely rare, we have come across USB ports that just don't seem to like some USB devices.

### **3. Do not use an unpowered USB hub**

Unpowered USB hubs may not be able to provide enough power to the malletSTATION, leading to connectivity issues. Unpowered hubs typically divide the power coming from the computer's USB port and split it up between all of the hub's ports — providing less power than if the malletSTATION were to be directly connected to the computer's USB port. If a USB hub is absolutely necessary, it is recommended to always use a powered hub.

### **4. Try with or without a USB hub**

If experiencing connectivity issues while using a USB hub, try without the hub and plug directly into the computer's USB port. The reverse holds true as well — if experiencing connectivity issues while not using a USB hub, try with a hub (if one is available to you).

### **5. Be aware of issues related to the operating system or device being used**

While it is possible the malletSTATION may occasionally cause issues, many times the cause is actually due to the operating system or software itself. Always be aware of these issues and check with your device or software manufacturer.

### **6. Connect to a different computer**

If the malletSTATION is not making a connection to the computer at all (and all other troubleshooting issues have been exhausted), it is recommended to try connecting it to a different computer. If it works on the new computer, try the original one again.

# GAP CAP LOW NOTE ASSIGNMENT CHART

<p>LOW NOTE <b>C</b></p>	
<p>LOW NOTE <b>D</b></p>	
<p>LOW NOTE <b>E</b></p>	
<p>LOW NOTE <b>F</b></p>	
<p>LOW NOTE <b>G</b></p>	
<p>LOW NOTE <b>A</b></p>	
<p>LOW NOTE <b>B</b></p>	



## SAFETY PRECAUTIONS

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### **Medical Devices**

malletSTATION may emit electromagnetic fields. These electromagnetic fields may interfere with pacemakers or other medical devices. If you wear a pacemaker, maintain at least 6 inches (approximately 15cm) of separation between your pacemaker and malletSTATION. If you suspect malletSTATION is interfering with your pacemaker or any other medical device, stop using malletSTATION and consult your physician for information specific to your medical device.

### **Medical Conditions**

If you have any medical condition that you believe could be affected by malletSTATION (for example, seizures, blackouts, eyestrain, or headaches), consult with your physician prior to using malletSTATION.

### **Explosive Atmospheres**

Do not use malletSTATION in any area with a potentially explosive atmosphere, such as a fueling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and instructions.

### **Repetitive Motion**

When you perform repetitive activities (such as hitting the malletSTATION with sticks), you may experience occasional discomfort in your hands, arms, wrists, shoulders, neck, or other parts of your body. If you experience discomfort, stop using malletSTATION and consult a physician.

### **High-Consequence Activities**

malletSTATION is not intended for use where the failure of the device could lead to death, personal injury, or severe environmental damage.

### **Choking Hazard**

Some malletSTATION accessories may present a choking hazard to small children. Keep these accessories away from small children.

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Thank you for your purchase of a Pearl malletSTATION!



[www.pearlmalletstation.com](http://www.pearlmalletstation.com)  
[www.pearldrums.com](http://www.pearldrums.com)