M-AUDIO®
HAMMER88 PRO

User Guide
English (2 – 63)

Appendix
English (64 – 69)

M-AUDIO

Introduction

Box Contents

Hammer 88 Pro	Quickstart Guide
Music Rest	User Guide (download)
USB Cable	Safety & Warranty Manual
Software Download Card	

Important: Visit **m-audio.com** to download the Hammer 88 Pro Preset Editor. The Preset Editor gives you a visual and intuitive way to edit the various messages that Hammer 88 Pro's controls send to your computer without having to use the hardware interface.

Support

For the latest information about this product (system requirements, compatibility information, etc.) and product registration, visit **m-audio.com**.

For additional product support, visit **m-audio.com/support**.

Setup

Connection

To start using your Hammer 88 Pro series keyboard, you need to connect your equipment, get your software properly configured, and then set the keyboard's operation Mode.

To connect your Hammer 88 Pro series keyboard to your computer, use the included USB cable. Plug the USB-B end of the cable into the keyboard and the USB-A end of the cable into your computer (or into a USB hub connected to your computer).

Note: In addition to sending data, the USB cable powers the keyboard. If you will be connecting your Hammer 88 Pro series keyboard to a USB hub that has other devices connected to it, then we recommend using a powered USB hub.

Initial Setup – PC Selection

Your Hammer 88 Pro has the ability to control all of your DAW's faders, buttons, knobs, pads, and favorite DAW shortcuts, as well as all of your virtual instrument controls. In order to have these controls set properly, we'll first need to get your Hammer 88 Pro to set to the correct PC Operating System.

1. Ensure your Hammer 88 Pro is set to the correct PC Operating System by doing the following. This will ensure all of the DAW Shortcuts work correctly.

2. Press and hold the **SHIFT** button and press the **MODE/GLOBAL** button entering into the **GLOBAL EDIT** mode.

3. In the **GLOBAL EDIT** menu use the **ENCODER** to scroll to **PC**. Once you have **PC** highlighted, press the **ENCODER** to enter into **PC** selection. Then use the **ENCODER** to select your PC's Operating System **Windows "WIN"** or **macOS "MAC"**.

4. Once you have selected your **PC** setting, press the **BACK** button to exit out of the **GLOBAL EDIT** menu.

Initial Setup - DAW Setup

Now that you've selected the correct Operating System. we'll set your Hammer 88 Pro to work with your DAW.

1. Press and hold the **DAW Button** to open the DAW Select menu on the **Display**.

2. Turn the **Select/Scroll Encoder** to cycle through the available DAWs on the **Display**. As you turn the Encoder, the currently selected DAW will update on the **Display**. The **User** option enables you to map custom DAW controls to the keyboard, as described in the **Operation** section.

3. When the DAW you want is shown on the Display, press the **Select/Scroll Encoder** to confirm your selection.

   Note: To exit out of DAW Selection Mode without changing the currently selected DAW, press the **Back Button**.

Most DAWs will automatically recognize the Hammer 88 Pro series keyboard, and automatically configure your Hammer 88 Pro's controls as a control surface in DAW mode, and virtual instrument controller in Preset mode.

If your DAW does not automatically configure your Hammer 88 Pro series keyboard, please follow the setup steps listed in the **Hammer 88 Pro DAW Setup Guides**.

M-AUDIO

Initial Setup – Virtual Instrument/Plugin Setup

Now that you've selected the correct Operating System and DAW. we'll set your Hammer 88 Pro to work with all of the Virtual Instrument plugins included with your Hammer 88 Pro, and any other Virtual Instrument plugins you may have.

1. Press and hold the **PRESET Button** to open the PRESET Select menu on the **Display**.

2. Turn the **Select/Scroll Encoder** to cycle through the available Presets on the **Display**. As you turn the Encoder, the currently selected Preset will appear on the **Display**. You can create your own custom virtual instrument presets, as described in the *Operation* section.

3. When the Preset you want is shown on the Display, press the **Select/Scroll Encoder** to confirm your selection.

   Note: To exit out of Preset Selection Mode without changing the currently selected Preset, press the **Back Button**.

There are Presets for all of the Virtual Instruments included with your Hammer 88 Pro. For Virtual Instruments that aren't included with your Hammer 88 Pro, we suggest using MPC Beats as a plugin in your favorite DAW, and the Hammer 88 Pro's **MPC PI** preset. MPC Beats opens as a plugin wrapper in all mainstream DAWs to merge the best of all DAW worlds. This gives you the freedom to use MPC Beats as a soft synth/Virtual Instrument plugin wrapper, enabling you to have all of your Hammer 88 Pro controls auto-mapped to your favorite soft synth/Virtual Instrument plugin.

To download the included MPC Beats software, follow the instructions on the included software download card.

Initial Setup – Hardware Synth

If you will be using your Hammer 88 Pro series keyboard with a hardware synth rather than your computer, connect the keyboard's **MIDI Out** port to a synth with a standard 5-pin MIDI cable. Then make sure that your keyboard is set to operate with one of its custom presets selected (as instructed in the *Operation* section) and that the keyboard is set to send MIDI data from the 5-pin MIDI out port in the Global Settings. In order to use an external hardware synth, you will need to connect the keyboard to a computer, laptop, or to a powered USB hub.

Your Hammer 88 Pro gives you the option select what messages will be sent from its 5-pin MIDI output. You can choose **USB** to send only messages from your connected PC to an external hardware synth, **KEYS** to send only messages from your Hammer 88 Pro to an external hardware synth, or **KEYS/USB** to send messages from your connected PC and the keyboard to an external hardware synth. In order to have these controls set properly please use the following steps:

1. Press and hold the **SHIFT** button and press the **MODE/GLOBAL** button entering into the **GLOBAL EDIT** mode.

2. In the **GLOBAL EDIT** menu use the **ENCODER** to scroll to **MIDI OUT**. Once you have **MIDI OUT** highlighted, press the **ENCODER** to enter into **MIDI OUT** selection. Then use the **ENCODER** to select what messages you want sent from your Hammer 88 Pro's 5-pin MIDI Out.

   a. **OFF:** No messages sent from the 5-pin output.

   b. **KEYS:** All controls, keys, and pad messages from the Hammer 88 Pro will be sent from the 5-pin output.

   c. **USB:** Only messages received on the Hammer 88 Pro's MIDI Port 2 from a connected PC will be sent from the 5-pin MIDI out.

   d. **KEYS/USB:** Messages from the Hammer 88 Pro and the Hammer 88 Pro's MIDI Port 2 from a connected PC will be sent from the 5-pin output.

3. Once you have selected your **MIDI OUT** setting, press the **BACK** button to exit out of the **GLOBAL EDIT** menu.

Installing Your Included Software

We recommend registering your Hammer 88 Pro on **m-audio.com** and downloading the **Hammer 88 Pro Series Software Manager.** Follow the instructions on your included Software Download Card to access the **Hammer 88 Pro Series Software Manager**

DAWs and Virtual Instruments

In the **Software Manager** you'll have access to all of your included software.

We've included 3 DAWs, **MPC Beats**, **Pro Tools | First M-Audio Edition**, and **Ableton Live Lite** with your Hammer 88 Pro series keyboard so you can get started making music with professional software right out of the box. Additionally, we've included a set of **MPC Beats** Expansion Packs and **AIR** virtual instrument plugins for you to use with your DAW.

To download the included MPC Beats, **Pro Tools | First M-Audio Edition**, **or Ableton Live Lite DAW software, AIR** virtual instrument plugins**,** and **MPC Beats** Expansion Packs**,** register your Hammer 88 Pro on **m-audio.com** and download the **Hammer 88 Pro Series Software Manager**. The **Hammer 88 Pro Series Software Manager** will gude you step-by-step on downloading and installing all of your included software.

Preset Editor

To download the included Preset Editor software, follow the instructions in the **Hammer 88 Pro Series Software Manager**. The **Preset Editor** software can be used to create custom DAW and Preset mappings for you to load onto your Hammer 88 Pro series keyboard. For more information on operating the keyboard with one of the custom DAW or Presets, see the following section and the *Operation* section. The Preset Editor also comes with its own *Editor User Guide.*

MPC Beats

To download the included MPC Beats software, follow the instructions in the **Hammer 88 Pro Series Software Manager**. MPC Beats is an intuitive to use DAW and soft synth/Virtual Instrument plugin wrapper built on the legacy of the legendary AKAI Pro MPC hardware and innovative MPC2 desktop software, MPC Beats empowers new beat makers with all the tools to create excellent sounding beats and more.
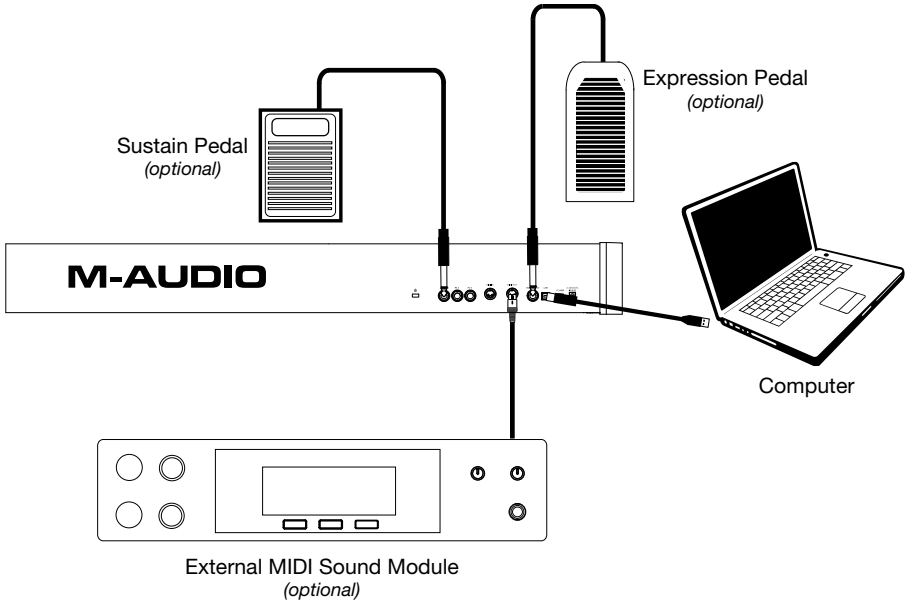
For complete integration with existing DAWs, MPC Beats opens as a plugin in all mainstream DAWs to merge the best of all DAW worlds. This gives you the freedom to use MPC Beats as a soft synth/Virtual Instrument plugin wrapper, enabling you to have all of your Hammer 88 Pro controls auto-mapped to your favorite soft synth/Virtual Instrument plugin.

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Connection Diagram

Remember to select your Hammer 88 Pro series keyboard as the controller in the **Setup**, **Preferences**, or **Options** of your digital audio workstation (DAW).

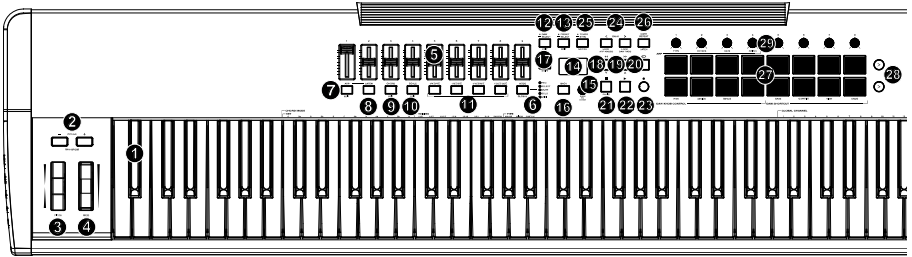Items not listed in *Introduction > Box Contents* are sold separately.

Please update the rear panel image to include the Hammer 88 Pro inputs and outputs (MIDI In and Out, Sustain, FS2, FS3, Expression Pedal, power input, and Kensington lock)

Expression Pedal
(optional)

Sustain Pedal
(optional)

M-AUDIO

Computer

External MIDI Sound Module
(optional)

Features

Top Panel

Keybed/Octave/Wheels

Note: Text accompanying keyboard controls indicates secondary functions that can be accessed by pressing **SHIFT** while using the control.

1. **Keybed:** This velocity-sensitive keybed is the primary method of sending Note On/Off MIDI data.

    In addition to being velocity sensitive, the keybed also includes and channel aftertouch which means you can affect the sound a virtual instrument plugin makes by varying how much pressure you apply on the key after initially pressing the key.

    Hold **SHIFT** and press keys **C2**–**Bb3** to edit Chord Mode settings.

    Hold **SHIFT** and press keys **A5**–**C7** to change the Global Channel.

2. **OCTAVE +/-:** Press these buttons to adjust the pitch range of the keys up or down one octave.

    TRANSPOSE: Hold **SHIFT** and press these buttons to adjust the pitch range of the keys up or down one semitone.

    The keyboard can be raised up to four octaves or lowered down to three octaves from its default octave range and a total of twelve semitones from its default transposition.

    To reset Hammer 88 Pro to its default octave range and transposition (**C2**–**C7** on the keybed), press the **Octave - ** and **Octave + Buttons** simultaneously.

3. **PITCH:** Roll this wheel up and down from the center position to bend the pitch of the keyboard while playing.
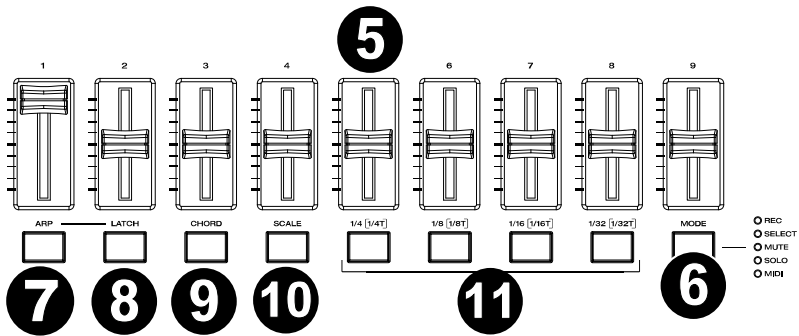
    The default range of the pitch-bend will vary between software synths.

    The wheel is spring mounted and will return to the center position when released.

4. **MOD (Modulation):** Move this wheel to send continuous controller data—MIDI CC #01 (modulation), by default.
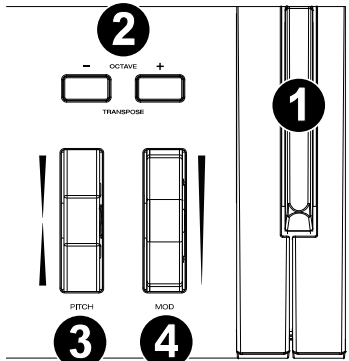
Faders/Buttons

5. **Faders (1–9):** Push these Faders up/down to perform their assigned controls.

When operating with a DAW, the assigned controls will be predetermined.

When operating with a preset or the **User** DAW selected, the controls can be edited.

6. **MODE:** Press the **Mode Button** to activate one of the secondary Modes for the **Fader Buttons**.

GLOBAL: Hold **SHIFT** and press the **Mode Button** to access the keyboard's Global Settings menu.

When the keyboard is set to operate with a DAW, the available secondary functions for the **Fader Buttons** are **Rec, Select, Mute,** and **Solo**. The buttons perform predetermined DAW channel Record Arm, Track Select, Mute, and Solo functions (see *Operation* to learn more).

When the keyboard is set to operate with a Preset, the available secondary function for the **Fader Buttons** is **MIDI**, in which the buttons perform MIDI controls that are predetermined in one of the custom presets.

The LEDs to the right of the **Mode Button** indicate which Mode the **Fader Buttons** are in.

LED Functions:

The Fader buttons will activate their default labeled functions.

DAW

Off/No LEDs

● **Rec** (**Red LED**)**:** The Fader Buttons will activate Record Arm MIDI or Mackie/HUI messages for the associated button's current channel.

● **Select (Green LED**)**:** The Fader Buttons will activate Track Select MIDI or Mackie/HUI messages for the associated button's current channel.

● **Mute (Blue LED**)**:** The Fader Buttons will activate Mute MIDI or Mackie/HUI messages for the associated button's current channel.

● **Solo (Yellow LED**)**:** The Fader Buttons will activate Solo MIDI or Mackie/HUI messages for the associated button's current channel.

Plugin/Preset

● **MIDI (White LED**)**:** The Fader Buttons will send predetermined MIDI messages when in one of the factory presets, or any user assignable MIDI message when in the user presets.

7. **ARP:** Press this button to activate the arpeggiator.

EDIT: Hold **SHIFT** and press this button to edit the arpeggiator's settings.

8. **LATCH:** Press this button to toggle the arpeggiator between momentary and latch Mode.

9. **CHORD:** Press this button to activate Chord Mode.

   EDIT: Hold **SHIFT** and press this button to edit the Chord Mode settings.

10. **SCALE:** Press this button to activate Scale Mode.

   EDIT: Hold **SHIFT** and press this button to edit the Scale Mode settings.

11. **1/4 [1/4T], 1/8 [1/8T], 1/16 [1/16T], 1/32 [1/32T] (Time Division Buttons):** Use these buttons to select the keyboard's time division setting for the note repeat and arpeggiator functions.

   Each press of one of these buttons alternates between the standard timing listed above the button and the triplet timing listed (beneath the button).

   A solid red LED shows that a standard timing is selected, while a flashing LED shows that a triplet timing is selected.

   See *Operation* to learn more about the features mentioned above.

Central Buttons

12. ● **DAW:** Press this button to set Hammer 88 Pro to operate in DAW Mode.

   - SELECT: Press and hold the button to open the DAW Select menu on the **Display**.

   EDIT: Hold **SHIFT** and press this button to edit and create your own DAW preset. After editing the User DAW, press the button again to Save your changes to the User DAW.

   See *Operation* for information on mapping the **User** preset.

13. ● **PRESET:** Press this button to set Hammer 88 Pro to operate in Preset Mode.

   - SELECT: Press and hold the button to open the Preset Select menu on the **Display**.

   EDIT: Hold **SHIFT** and press this button to edit a preset.

   After editing one of the presets, press the button again to save your changes to the current Preset.

   See *Operation* for information on mapping a preset.

14. **Display:** The main **Display** screen shows the status of the last used control.

   Use this screen to monitor parameter levels as you adjust controls on the keyboard.

   Also, use the **Display** along with the **Select/Scroll Encoder** to view and edit keyboard settings.

15. **Select/Scroll Encoder:** If you are entered into one of the **Display's** Edit menus, turn this encoder to change settings/parameters and press the encoder to confirm a selection.

   If you are not viewing any of the edit menus, turning the encoder and pressing the encoder will each function as separate MIDI controls.

   When operating with a DAW, the assigned controls will be predetermined.

   When operating with a preset or the **User** DAW selected, the controls can be edited.

16. **BACK:** If entered into one of the **Display's** Edit menus, press this button to go back to the main **Display** screen.

   DELETE: Hold the **SHIFT** button and press the **Back** button to delete a letter.

   If you are not viewing one of the Edit menus, this button will be assigned to a control.

   When operating with a DAW, the assigned control will be predetermined.

   When operating with a preset or the **User** DAW selected, the control can be edited.

17. **SHIFT:** Hold the **SHIFT Button** while moving or pressing controls or buttons on the keyboard to access their secondary functions.
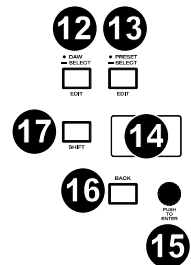
M-AUDIO

18. **<< | ˅:** Depending on what screen is selected in your DAW, this button will either rewind the open song or move down in the active window.

19. **>> | ˄:** Depending on what screen is selected in your DAW, this button will either fast forward the open song or move up in the active window.

20. ↻ **Loop:** Press this button to activate/deactivate the loop function in your DAW.

21. ■ **Stop:** Press this button to stop the open song in your DAW.

    Double-press this button to stop the open song and return the playhead to the beginning of the song.

    PANIC: Hold **SHIFT** and this button to send a MIDI panic message to turn off all Note messages and return all controls to zero.

22. ▶ **Play:** Press this button to play the song in your DAW.

23. ● **Record:** Press this button to activate recording in your DAW.

24. **< BANK >:** If operating in DAW Mode or one of the custom presets, use these buttons to switch the currently selected BANK for the **Faders**, **Knobs**, **Pads**, and **Fader Buttons**. There are four BANKs for these controls, giving you the equivalent of 36 Faders, 32 buttons, 32 knobs, and 64 pads.

    LOCK ARP KNOBS: Pressing **SHIFT** and the **BANK <** button will lock the **SHIFT** modifier LOCK ARP KNOBS controls. This is useful for changing ARP parameters during a live performance.

    LOCK DAW PADS: Pressing **SHIFT** and the **BANK >** button will lock the **SHIFT** modifier LOCK DAW PADS controls. This is useful for making edits while mixing a song.

    To return the knobs or pads to their normal mode, press the **SHIFT** button and the **BANK <** or **BANK >** button.

25. ● **TEMPO:** Tap this button to set Hammer 88 Pro's tempo.

    - SYNC: Press and hold to pull up the Tempo Edit menu on the **Display**, where you can use the **Select/Scroll Encoder** to manually enter the tempo and choose to sync Hammer 88 Pro's tempo with your DAW.

    The tempo setting affects the keyboard's arpeggiator and note repeat functions.

    METRO: Hold **SHIFT** and press this button to turn your DAW's metronome on/off.

    See *Operation* for more details.

26. **NOTE REPEAT:** Press this button to activate the note repeat function for the **Pads**.
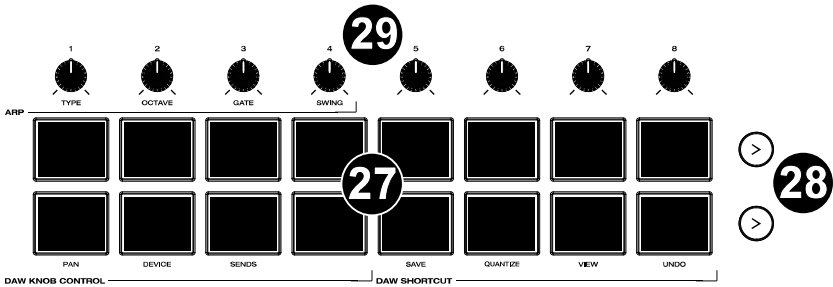
    LATCH: To latch the note repeat function, hold **SHIFT** and then press this button.

    While **Note Repeat** is active the **Select/Scroll Encoder** can be used to change the current **Time Division** setting of the **Arpeggiator** and pad **Note Repeat**.

    See *Operation* for more details on note repeat.
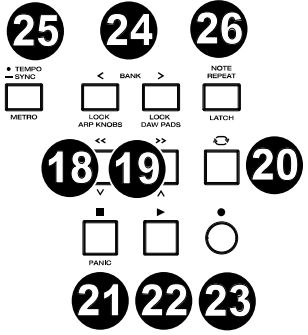
Pads/Knobs

27. **Pads (1–16):** Use these velocity-sensitive pads to send MIDI Note On/Off messages or perform other MIDI assignments (if using a preset or the **User** DAW).

    Pads 9-11: Hold **SHIFT** while pressing **Pads 9–11** to reassign the function of the **Knobs**.

    Pads 13-16: Hold **SHIFT** while pressing **Pads 13–16** to use the DAW shortcuts (see *Operation* to learn more).

28. **Pad Row Play:** Press these buttons to play through the audio clips assigned to each pad in the corresponding row of pads.

    Depending on the DAW, these buttons will have different functions.

29. **Knobs (1–8):** Turn these knobs left/right to perform their assigned controls.

    When operating with a DAW, the assigned controls will be predetermined.

    When operating with a preset or the **User** DAW selected, the controls can be edited.

    See *Operation* to learn how to change the predetermined assignments of the **Knobs** when operating in DAW Mode with a DAW selected.

    Knobs 1-4: Hold **SHIFT** while turning **Knobs 1–4** to edit arpeggiator settings.

    See *Using the Keyboard's Internal Functions* to learn more about the arpeggiator.

    Important: Both the **Faders** and **Knobs** are enabled with "soft takeover." This means that if you switch BANKs, a Fader or knob will not work until it is positioned at the current value of the newly selected software control. For example, if you move **Fader 1** in BANK 1 and then switch to BANK 2, physical **Fader 1** will not affect software Fader 10 until the physical Fader is positioned at the current value of software Fader 10. This feature allows you to make changes in one BANK and then switch BANKs without making unwanted changes to the new BANK's controls. The **Display** will show a checkered value meter if a **Fader** or **Knob** needs to be moved before it can "take over" its assigned control.

    Important: In Avid Pro Tools, stereo tracks have two panning controls: left and right. Press the **SHIFT** button to switch the knobs between the left channel and right channel. If the pan controls aren't moving on a mono track, press the **SHIFT** button to change pan knob back to controlling the pan control normally.

M-AUDIO

Rear Panel
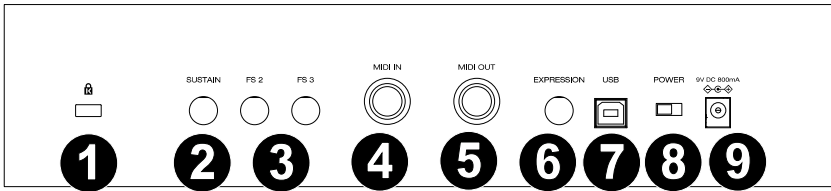
1. **Kensington® Lock Connector:** This connector is compatible with standard laptop-style Kensington security cables for theft protection.

2. **SUSTAIN:** This input accepts a momentary-contact foot pedal (not included). When pressed, the pedal by default will sustain the sound you are playing without you having to keep your fingers pressed down on the keys. The sustain pedal input can be remapped to perform a custom MIDI assignment.

   Note: The polarity of the sustain pedal is determined by the keyboard upon startup. When a Hammer 88 Pro keyboard is powering up, the sustain pedal is assumed to be in the "up" (Off) position. It is important that the sustain pedal is not in the down position before starting up the keyboard, as the pedal will then operate in reverse, and notes will sustain when the pedal is not pressed.

3. **FS 2 / FS 3:** These 1/4" TS inputs accept a soft pedal, such as the M-Audio SP-2 pedal, to soften the notes and modify the tonal quality. The footswitch inputs are fully assignable to CC messages.

4. **MIDI IN:** Use a standard 5-pin MIDI cable (sold separately) to connect this port to a hardware synth or other MIDI device. MIDI sent to this port will be sent to the Hammer 88 Pro, as well as the USB port.

5. **MIDI OUT:** Use a standard 5-pin MIDI cable (sold separately) to connect this port to a sound module, hardware sequencer, or other MIDI device.

   Note: The MIDI output port can send MIDI from the Hammer 88 Pro, your connected computer, or both. Go into the Global Settings to set what is sent to the MIDI Out.

6. **EXPRESSION:** This 1/4" TRS input is to be used with an expression pedal (such as the M-Audio EX-P) for adding expressive changes during performances. The M-Audio EX-P Expression Pedal is set to normally open (pedal up). The expression pedal input is fully assignable to CC messages.

7. **USB:** When connected to a computer, the USB port delivers power to the keyboard and transmits MIDI data.

8. **POWER Switch:** Use this switch to power Hammer 88 Pro on or off.

9. **POWER INPUT:** This input accepts an optional 9V DC, 800 mA power supply (sold separately). A power supply must be connected when using Hammer 88 Pro in stand-alone mode (when triggering external hardware synths). Use a USB cable to power Hammer 88 Pro when connecting to a computer to trigger software synths.

Operation

This chapter describes the features of your Hammer 88 Pro Series keyboard.

Basic Concepts

This section gives an overview of some fundamental concepts that will help you understand and use your Hammer 88 Pro series keyboard.

Keyboard

Octaves and Transposition

Tempo Control

Note Repeat/Latch Button

Presets

DAW and Preset Mode

SHIFT

Back Button

Encoder and Encoder Button

Mode LEDs

ARP and Latch Control

Smart Chord Control

Smart Scale Control

DAW Knob Control

DAW Shortcuts

ARP Knob Control

Zones

Each section contains links to other relevant sections of this guide, which we recommend reading, as well.

Keyboard

The keyboard is velocity-sensitive with aftertouch and can access the full range of 127 available MIDI notes across 10 octaves.

When a key is pressed beyond its depressed point, it will activate the channel aftertouch message. When Aftertouch is engaged, the display will show what the current aftertouch value is, similar to moving the Pitch or Mod wheels.

Pressing **SHIFT** and one of the labeled keys allows users to quickly edit chord functionality or change the global channel.

Octaves and Transposition

By using the **Key Octave –/+** buttons, the keyboard can access the full range of 127 available MIDI notes (10 octaves). Additionally, you can transpose the keyboard up to 12 semitones (1 octave) in either direction.

To change the octave of the keyboard, use the **Key Octave –/+** buttons to lower or raise the octave, respectively. The **display** will temporarily show **OCT** and the current octave shift.

To change the transposition of the keyboard, press and hold **Shift**, and then use the **Key Octave –/+** buttons to lower or raise the keybed by one one, respectively. The **display** will temporarily show **TRANS** and the current transposition (**-12** to **12**).

Tempo Control

To edit the Tempo button, press the Tempo button. You can either repeatedly tap the **TEMPO** button to enter in the tempo, or press and hold the **TEMPO** button to enter into the **TEMPO EDIT** mode. Once in the **TEMPO EDIT** mode you can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Clock Source "CLOCK": Selects whether the tempo is sent from the keyboard's internal tempo or synced to an external DAW.

Available Values: Internal, External

BPM ###.: 20.00 – 240.00

BPM .#: .0 – .9

Note: Clock messages are sent and received on Hammer 88 Pro Port 1 (Hammer 88 Pro ##/USB MIDI).

Note Repeat/Latch Button

When this button is pressed and held it will activate the Pad's Note Repeat/Roll functionality.

If **SHIFT** and this button are pressed together, then that will activate the Note Repeat button's Latch feature.

While Note Repeat is active, the **Select/Scroll Encoder** can be used to change the current **Time Division** setting of the **Arpeggiator** and pad **Note Repeat**:

- **1/4**
- **1/4T**
- **1/8**
- **1/8T**
- **1/16**
- **1/16T**
- **1/32**
- **1/32T**

Note: You can also use the 1/4, 1/8, 1/16, and 1/32 fader buttons to change tempos. To access the triplet functionality of a Time Division button, double press the desired Time Division button.

Presets

A preset is a saved collection of assignments for your Hammer 88 Pro's controls, channel settings, keyboard zone settings, etc. You can store up to **16 Preset** presets in Hammer 88 Pro's internal memory, enabling you to use a dedicated preset for each virtual instrument, or project/session.

Along with the included **DAW** presets you can store your own **DAW** preset in Hammer 88 Pro's internal memory, enabling you to create and use your own dedicated DAW preset for your digital audio workstation (DAW).

We recommend registering your Hammer 88 Pro on **m-audio.com** and downloading the **Hammer 88 Pro Series Software Manager**.

In the **Software Manager** you'll have access to all of your included software as well as the Hammer 88 Pro **Preset Editor**. The **Preset Editor** gives you a visual and intuitive way to edit the various messages that Hammer 88 Pro's controls send to your computer without having to use the hardware interface. The **Preset Editor** enables you to save and load custom presets from your computer.

To select a Preset preset, press and hold the **PRESET** button until the Preset Selection screen appears on the OLED, then turn the **Encoder** to scroll to a preset, and then press the **Encoder** to select your desired preset.

To select a DAW preset, press and hold the **DAW** button until the DAW preset Selection screen appears on the OLED, then turn the **Encoder** to scroll to a DAW preset, and then press the **Encoder** to select your desired preset.

Important: If you power off your Hammer 88 Pro keyboard without saving/storing your preset, you will lose any assignments or changes you have made.

DAW and Preset Mode

Once you've set up your Hammer 88 Pro keyboard to work with your DAW, it's time to set the keyboard's operation Mode, Preset or DAW. By choosing the operation Mode, you can quickly switch between the Hammer 88 Pro controlling your DAW's controls when DAW mode is active to controlling a soft synth/Virtual Instrument when Preset mode is active.

These two operation Modes determine the function of the MIDI keyboard's editable controls:

- **DAW:** In DAW Mode, the keyboard's controls will be mapped to faders, buttons, knobs, and in some cases pads in your DAW.

- **Preset:** In Preset Mode, the keyboard's controls will be mapped to faders, buttons, knobs, and pads in your selected Virtual Instrument. The keyboard's editable controls can be set to functions that you design yourself. A number of individual preset mappings can be created and then saved to the keyboard's internal memory for you to load at a later time.

M-AUDIO

To set the keyboard to operate in DAW Mode, press the **DAW Button**. The button LED will be lit to show that DAW Mode is selected.

To change which DAW your keyboard is set to control:

1. Press and hold the **DAW Button** to open the DAW Select menu on the **Display**.

2. Turn the **Select/Scroll Encoder** to cycle through the available DAWs on the **Display**. As you turn the Encoder, the currently selected DAW will update on the **Display**. The **User** option enables you to map custom DAW controls to the keyboard, as described in the *Operation* section.

3. When the DAW you want is shown on the Display, press the **Select/Scroll Encoder** to confirm your selection.

Note: To exit out of DAW Mode without changing the currently selected DAW, press the **Back Button**.

Most DAWs will automatically recognize the Hammer 88 Pro series keyboard, and automatically configure your Hammer 88 Pro's controls as a control surface in DAW mode, and virtual instrument controller in Preset mode.

If your DAW does not automatically configure your Hammer 88 Pro series keyboard, please follow the setup steps listed in the **Hammer 88 DAW Setup Guides**.

To set the keyboard to operate in Preset Mode, press the **Preset Button**. The Preset button LED will be lit to show that Preset Mode is selected.

To change the currently selected preset:

1. Press and hold the **Preset Button** to open the Preset Select menu on the **Display**.

2. Turn the **Select/Scroll Encoder** to cycle through the available Presets on the **Display**. As you turn the Encoder, the currently selected Preset will update on the Display.

3. When the preset you want is shown on the **Display**, press the **Select/Scroll Encoder** to confirm your selection.

There are Presets for all of the Virtual Instruments included with your Hammer 88 Pro. For Virtual Instruments that are not included with your Hammer 88 Pro, we suggest using MPC Beats as a plugin wrapper in your favorite DAW, and the Hammer 88 Pro's **MPC PI** preset. MPC Beats opens as a plugin wrapper in all mainstream DAWs to merge the best of all DAW worlds. This gives you the freedom to use MPC Beats as a soft synth/Virtual Instrument plugin wrapper, enabling you to have all of your Hammer 88 Pro controls auto-mapped to your favorite soft synth/Virtual Instrument plugin.

To download the included MPC Beats software, follow the instructions on the included software download card.

SHIFT Button

When this button is pressed and held it will enable you to select SHIFT modifier functions of the keyboard.

Back Button

When in any of the keyboard's available editing modes, this button will send a message to go back to a previous menu. When not in any of the edit modes, this button will send a separate MIDI, Mackie or Mackie/HUI message in DAW mode. When in PRESET mode, this button will send a separate user editable MIDI message when preset 1-16 is selected.

When **SHIFT** is pressed and held with this button it will delete the currently selected letter when saving a User Preset Name, or User DAW Name.

Encoder and Encoder Button

When in any of the keyboard's available editing modes this Encoder is used for scrolling through selections when turned left and right and will enter when pressed. When in DAW Mode this Encoder will send separate Up/Down or Left/Right messages (depending on the DAW), and Enter messages. In Preset mode this Encoder will either send the same message as the DAW Encoder assignment or send Program or CC messages.

When **NOTE REPEAT** is active the Encoder will be used for selecting **NOTE REPEAT** and **ARP** time division settings.

Mode LEDs

These LEDs will change depending on what the current keyboard mode is. In Preset and DAW mode, the fader buttons silkscreened options will always be available for selection. In DAW mode, the fader buttons silkscreened options will be available for selection, as well as track Record (Record arm), Select, Mute, and Solo. In Preset mode, the fader buttons silkscreened options will be available for selection, as well as user editable MIDI messages.

DAW Mode

- **Off/No LEDs:** Fader Buttons will activate the following options:
  - ○ ARP On/Off, ARP Edit Enter/Exit
  - ○ ARP Latch On/Off
  - ○ Smart Chord On/Off, Chord Edit Enter/Exit
  - ○ Smart Scale On/Off, Scales Edit Enter/Exit
  - ○ 1/4, 1/4T – Timing selection for the ARP and Note Repeat messages.
  - ○ 1/8, 1/8T – Timing selection for the ARP and Note Repeat messages.
  - ○ 1/16, 1/16T – Timing selection for the ARP and Note Repeat messages.
  - ○ 1/32, 1/32T – Timing selection for the ARP and Note Repeat messages.
- **Rec/Red LED:** Fader Buttons will activate Record Arm MIDI, Mackie, or Mackie/HUI messages for the associated button's current channel in your DAW.
- **Select/Green LED:** Fader Buttons will activate Track Select MIDI, Mackie, or Mackie/HUI messages for the associated button's current channel in your DAW.
- **Mute/Blue LED:** Fader Buttons will activate Mute MIDI, Mackie, or Mackie/HUI messages for the associated button's current channel in your DAW.
- **Solo/Yellow LED:** Fader Buttons will activate Solo MIDI, Mackie, or Mackie/HUI messages for the associated button's current channel in your DAW.

M-AUDIO

Preset Mode

- **Off/No LEDs:** Fader Buttons will activate the following options:
  - ○ ARP On/Off, ARP Edit Enter/Exit
  - ○ ARP Latch On/Off
  - ○ Chord On/Off, Chord Edit Enter/Exit
  - ○ Scales On/Off, Scales Edit Enter/Exit
  - ○ 1/4, 1/4T
  - ○ 1/8, 1/8T
  - ○ 1/16, 1/16T
  - ○ 1/32, 1/32T

- **MIDI/White LED:** Fader Buttons will send predetermined MIDI messages when in a factory preset, or any user assignable MIDI message when in the user presets.

ARP and ARP LATCH Control

When this button is pressed, it will activate the keyboard's internal arpeggiator. The arpeggiator's rate is based on the current Tempo and Time Division settings – Tempo settings are editable using the Tempo button. Time Division settings can be accessed by pressing and holding the **Note Repeat** button and turning the **Encoder** or by pressing any of the time division fader buttons (1/4, 1/8, 1/16, 1/32).

To activate the **ARP Latch** functionality, press the **ARP LATCH** button.

Note: You can also sync the Arpeggiator to either the current Tempo's BPM setting, or an external MIDI Clock source. The clock source can be edited in Preset Edit Mode and selecting/pressing the Tempo button. Arpeggiator functionality is available in the 2 keyboard modes, DAW, PRESET.

Smart Chord Control

When this button is pressed, it will activate the keyboard's internal Smart Chord functionality. The Smart Chord functionality can function on notes being played on the keyboard or pads depending on the selection in the **GLOBAL SETTINGS** menu. When Smart Chord mode is active a single key press will play a chord as selected in the current Smart Chord Edit options. This functionality is available in the 2 keyboard modes, DAW, PRESET.

Smart Scale Control

When this button is pressed, it will activate the keyboard's internal Smart Scale functionality. The current scale is based on the current Smart Scale settings (in the Smart Scale Edit menu). The Smart Scale functionality will only function on notes being played on the keyboard only. When Smart Scale Mode is active, keys will only play notes in the key of the current key and scale selection. This functionality is available in the 2 keyboard modes, DAW, PRESET.

DAW Knob Control

Using the **SHIFT** button and **9-11** will enable you to change the function of knobs in DAW mode.

DAW Mode

- **Volume:** Will change the knobs function to control the channel faders in your DAW
- **Pan:** Will change the knobs function to control the channel pan knobs in your DAW
- **Device:** Will change the knobs function to control the currently selected channel's plugin controls in your DAW.
  Note: Not all DAWs support Device control.
- **Sends:** Will change the knobs function to control the currently selected channel's send controls in your DAW.
  Note: Not all DAWs support Sends control.

DAW Shortcuts

Using the **SHIFT** button and **TEMPO/METRO** and **Pads 13-16** will enable you to send DAW shortcut/hot key messages:

- **METRO (Metronome):** Will send the ASCII shortcut message to turn on/off your Metronome/Click track in your DAW.
- **Save:** Will send the Save ASCII shortcut message to your DAW to save your current session.
- **Quantize:** Will send the Quantize ASCII shortcut message to your DAW to Quantize your current selection.
- **View:** Will send a View ASCII shortcut message to your DAW to change your current view.
  Note: Some DAWs may require a window to be opened for View to work properly. This will toggle between the window being maximized and minimized.
  Note: Some DAWs will also support additional View controls. Pressing the Clip Play buttons will offer additional view controls.
- **Undo:** Will send an Undo ASCII shortcut message to your DAW to revert your last change in your DAW.

Note: You can lock and unlock your DAW shortcuts to always be active by pressing **SHIFT** and **BANK >**.

ARP Knob Control

Using the **SHIFT** button and **Knobs 1-4** will enable you to change the function of knobs to control the functions of the Arpeggiator.

Arp Knob Controls

- **Type:** Will change what order the notes will be played back in the ARP
- **Octave:** Will change the octave range of the ARP
- **Gate:** Will change the length of the ARP's notes
- **Swing:** Will change how much the ARPs Tempo will swing

Note: You can lock and unlock your ARP knob controls to always be active by pressing **SHIFT** and **BANK <**.

M-AUDIO

Zones

The **keybed** (the piano keys) on your Hammer 88 Pro can be divided into 1–4 "zones." When zones are active each zone can send its controls' MIDI messages over its own MIDI channel. You can assign the parameters for the keybed/zones in Preset Edit mode only.

Tip: This feature is great for dividing your keyboard between different virtual instruments or synthesizers. For example, you can create two zones, each using a different MIDI channel, and play and control two virtual instruments simultaneously—one with each half of the keys.

- **Enabled:** Turns the associated function on or off.

- **First:** The zone's lowest key will correspond with this note.

- **Last:** The zone's highest key will correspond with this note.

- **Octave:** The zone's keys will send their notes using this octave shift (from their original position on the keybed).

  Note: The zone octave and transposition are independent from the keyboard's overall octave and transposition, but all of these affect the note a key sends out.

- **Transpose:** The zone's keys will send their notes using this transposition (from their original position on the keybed).

  Note: The zone octave and transposition are independent from the keyboard's overall octave and transposition, but all of these affect the note a key sends out.

- **Program:** The zone will send this program number when you press a key in it.

- **MSB:** The zone will send this Bank MSB (Most Significant Byte) number when you press a key in it.

- **LSB:** The zone will send this Bank LSB (Least Significant Byte) number when you press a key in it.

- **Chan:** The zone will send its messages over this channel. Select the global channel (**Global**) or a specific channel (**Channel 1–16**).

Note: Any other controls whose **Channel** settings are set to this zone will send their messages using this channel as well.

Preset Edit Mode

When **SHIFT** is pressed and held and the PRESET button is pressed, it will enter into editing the currently selected Preset.

The default parameter to be edited will be the current Preset's Pitch Wheel assignment. However, once a different control is moved, or pressed, for example Knob 1, it will activate that selected control for editing.

Storing a Preset

To store a Preset:

1. Press **SHIFT** and the **Preset** button to enter Edit Mode.
2. Edit a control as outlined in the *Preset Edit Mode* section of this guide.
3. Press the **Preset** button.
4. The display will show "**SAVE?**" with the following selections available.

   - **Cancel:** Selecting "Yes" to **Cancel** will revert any changes made.
   - **Replace:** Selecting "Yes" to **Replace** will write over the currently selected preset.
   - **Save As:** Selecting "Yes" to **Save As** enable you to choose what number "**LOCATION**" the preset will be and edit/change what the preset's name "**NAME**" is. The last available selection in the **Save As** screen is **Save.** Pressing "**Yes**" on the **Save** screen will save your new preset.

   Note: When editing a preset name, use the Encoder to scroll to a letter you want to edit and press the Encoder to select the current letter. To erase a letter in a preset name, press **SHIFT** and the **Back** button.

Channel Definitions

Channel:

Select the global channel (**Global**) to use the channel assigned in the **GLOBAL SETTING** menu, a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

- **Global:** Will send on the global MIDI channel. The Global MIDI channel is assigned in the **GLOBAL EDIT SETTINGS** menu
- **Channel 1–16:** Will send on a specific MIDI channel.
- **Zone 1 – 4:** Will send on the same channel as the assigned Zone's channel. This enables you to split the keybed into 4 separate zones, and use different controls to only effect that specific zone.
- **Omni:** Will send on all MIDI channels. This enables you to split the keybed into 4 separate zones, and one control to control all 4 zones. For example, if you want the **PITCH** or **MOD WHEEL** to function in several different zones.

M-AUDIO

Editable Preset Controls

Pitch Wheel

To edit the Pitch Wheel control when in Preset Edit Mode, move the Pitch Wheel. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Pitch Wheel will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).
Available Values: Global, 1-16, Zone 1-4, Omni

Minimum Value: The wheel's minimum position will correspond with this value. You can reverse the wheel's polarity by making this value larger than the **Max** value.
Available Values: 0-127

Maximum Value: The wheel's maximum position will correspond with this value. You can reverse the wheel's polarity by making this value smaller than the Min value.
Available Values: 0-127

Modulation Wheel

To edit the Modulation Wheel control when in Preset Edit Mode, move the Modulation Wheel. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Mod Wheel will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).
Available Values: Global, 1-16, Zone 1-4, Omni

CC: The Mod wheel will send its MIDI messages using this CC number.
Available Values: 0-127

Minimum Value: The wheel's minimum position will correspond with this value. You can reverse the wheel's polarity by making this value larger than the **Max** value.
Available Values: 0-127

Maximum Value: The wheel's maximum position will correspond with this value. You can reverse the wheel's polarity by making this value smaller than the Min value.
Available Values: 0-127

Keybed

To edit your Hammer 88 Pro's Zone and Aftertouch assignments when in Preset Edit Mode, press a key on the keyboard. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Zones:

The **keybed** (the piano keys) on your Hammer 88 Pro can be divided into 1–4 "zones." When zones are active each zone can send its controls' MIDI messages over its own MIDI channel. You can assign the parameters for the keybed/zones in Preset Edit mode only.

Tip: This feature is great for dividing your keyboard between different virtual instruments or synthesizers. For example, you can create two zones, each using a different MIDI channel, and play and control two virtual instruments simultaneously—one with each half of the keys.

- **Enabled:** Turns the associated function on or off.

- **First:** The zone's lowest key will correspond with this note.

- **Last:** The zone's highest key will correspond with this note.

  Note: When the First or Last Note is selected in Zone Edit mode you can press a key on the keybed to enter the First or Last note. The enables you to make a quick selection and avoid using the Encoder to make a selection.

- **Octave:** The zone's keys will send their notes using this octave shift (from their original position on the keybed).

  Note: The zone octave and transposition are independent from the keyboard's overall octave and transposition, but all of these affect the note a key sends out.

- **Transpose:** The zone's keys will send their notes using this transposition (from their original position on the keybed).

  Note: The zone octave and transposition are independent from the keyboard's overall octave and transposition, but all of these affect the note a key sends out.

- **Program:** The zone will send this program number when you press a key in it.

- **MSB:** The zone will send this Bank MSB (Most Significant Byte) number when you press a key in it.

- **LSB:** The zone will send this Bank LSB (Least Significant Byte) number when you press a key in it.

- **Chan:** The zone will send its messages over this channel. Select the global channel (**Global**) or a specific channel (**Channel 1**–**16**).

  Note: Any other controls whose **Chan** settings are set to this zone will send their messages using this channel, as well.

Aftertouch:

- **Chan:** The aftertouch will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1**–**16**), a zone (**Zone 1**–**4**), or all channels (**Omni**).

- **Min:** The lowest note played in the range will correspond with this value.

- **Max:** The highest note played in the range will correspond with this value.

M-AUDIO

Faders

To edit a Fader's controls when in Preset Edit Mode, move a Fader. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Fader will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).
Available Values: Global, 1-16, Zone 1-4, Omni

CC: The fader will send its MIDI messages using this CC number.
Available Values: 0-127

Minimum Value: The fader's minimum position will correspond with this value. You can reverse the fader's polarity by making this value larger than the **Maximum** value.
Available Values: 0-127

Maximum Value: The fader's maximum position will correspond with this value. You can reverse the fader's polarity by making this value smaller than the **Minimum** value.
Available Values: 0-127

Knobs

To edit one of the Knobs when in Preset Edit Mode, move a Knob. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The knob will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).
Available Values: Global, 1-16, Zone 1-4, Omni

CC: The knob will send its MIDI messages using this CC number.
Available Values: 0-127

Minimum Value: The knob's minimum position will correspond with this value. You can reverse the knob's polarity by making this value larger than the **Maximum** value.
Available Values: 0-127

Maximum Value: The knob's maximum position will correspond with this value. You can reverse the knob's polarity by making this value smaller than the **Minimum** value.
Available Values: 0-127

Fader Buttons

To edit one of the Fader Buttons when in Preset Edit Mode, press a fader button. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The fader button will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

Available Values: Global, 1-16, Zone 1-4, Omni

Mode "MODE":

- CC **"CC":** The fader button will send its MIDI messages using this CC number.
- CC Cycle **"CC CYCLE":** The fader button will send the value with this CC number when you press it, one at a time, cycling through them with each press.
- CC Inc/Dec **"CC INC/DC":** The fader button will send the next (Increment) or previous (Decrement) value number in the range of values when you press it.
- Program **"PROGRAM":** The fader button will send this program number when you press it.
- Program Cycle **"PRG CYCL":** The fader button will send the value with this Program number when you press it, one at a time, cycling through them with each press.
- Program Inc/Dec **"PG IN/DC":** The fader button will send the next (Increment) or previous (Decrement) program number in the range of programs when you press it.
- Note **"NOTE":** The fader button will send its MIDI messages using this Note number.

When set to CC, these are the available parameters:

CC: The fader button will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The fader button will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The fader button will send the MIDI CC number with this value when you release it.

Available Values: 0-127

When set to CC Cycle, these are the available parameters:

CC: The fader button will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The fader button will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The fader button will send the MIDI CC number with this value when you release it.

Available Values: 0-127

Values: The fader button will send the value with this CC number when you press it, one at a time, cycling through them with each press.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First Value:
Available Values: 0-127

Second Value:
Available Values: 0-127

Third Value:
Available Values: 0-127

Last:
Available Values: 0-127

When set to CC IN/DC, these are the available parameters:
CC: The fader button will send its MIDI messages using this CC number.
Available Values: 0-127

Type: The fader button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest value in the range of values will correspond with this setting.
Available Values: 0-127

Max: The highest value in the range of values will correspond with this setting.
Available Values: 0-127

When set to Program, these are the available parameters:
Program: The fader button will send this program number when you press it.
Available Values: 0-127

MSB: The fader button will send this Bank MSB (Most Significant Byte) number when you press it.
Available Values: 0-127

LSB: The fader button will send this Bank LSB (Least Significant Byte) number when you press it.

Available Values: 0-127

When set to Program Cycle, these are the available parameters:

Values: The fader button will cycle through this many Program values (one at a time) when you press it: **2 Values**, **3 Values**, or **4 Values**.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First: The fader button will send this Program message first when you press it.

Available Values: 0-127

Second: The fader button will send this Program message second when you press it.

Available Values: 0-127

Third: The fader button will send this Program message third when you press it.

Available Values: 0-127

Last: The fader button will send this Program message last when you press it.

Available Values: 0 – 127

When set to Program IN/DC (PG IN/DC), these are the available parameters:

Type: The fader button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest Program value in the range of values will correspond with this setting.

Available Values: 0-127

Max: The highest Program value in the range of values will correspond with this setting.

Available Values: 0-127

When set to Note, these are the available parameters:

Note: The fader button will send its MIDI messages using this Note number.

Available Values: C-2 – G8

Latch: When set to Latch On, the fader button will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press. When set to Latch Off, the fader buttons will send one value when pressed and one value when released.

Available Values: On/Off

Note On: When Latch is active, the fader button will send the MIDI note number with this velocity when you press it to turn it on.

Available Values: 0-127

Note Off: When Latch is active, the fader button will send the MIDI note number with this velocity when you press it to turn it off.

Available Values: 0-127

Sustain Pedal

To edit the Sustain Pedal when in Preset Edit Mode, press a connected Sustain Pedal. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Sustain Pedal will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

Available Values: Global, 1-16, Zone 1-4, Omni

CC: The Sustain Pedal will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The Sustain Pedal will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The Sustain Pedal will send the MIDI CC number with this value when you release it.

Available Values: 0-127

Latch: When set to Latch On, the Sustain Pedal will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press. When set to Latch Off, the Sustain Pedal will send one value when pressed and one value when released.

Available Values: On/Off

Pads

To edit one of the Pads when in Preset Edit Mode, press a Pad. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The pad will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1**–**16**), a zone (**Zone 1**–**4**), or all channels (**Omni**).
Available Values: Global, 1-16, Zone 1-4, Omni

Color 1: Select the primary color that you want to assign to the pad.
Available Values: Off "**OFF**", Chartreuse "**CHAR.**", Green "**GREEN**", Aquamarine "**AQUA**", Cyan "**CYAN**", Azure "**AZURE**", Blue "**BLUE**", Violet "**VIOLET**", Magenta "**MAGENTA**", Rose "**ROSE**", Red "**RED**", Orange "**ORANGE**", Yellow "**YELLOW**", White "**WHITE**".

Color 2: Select the secondary color that you want to assign to the pad.
Available Values: Off "**OFF**", Chartreuse "**CHAR.**", Green "**GREEN**", Aquamarine "**AQUA**", Cyan "**CYAN**", Azure "**AZURE**", Blue "**BLUE**", Violet "**VIOLET**", Magenta "**MAGENTA**", Rose "**ROSE**", Red "**RED**", Orange "**ORANGE**", Yellow "**YELLOW**", White "**WHITE**".

Mode "MODE":
- Note "**NOTE**": The pad will send its MIDI messages using this Note number.
- CC "**CC**": The pad will send its MIDI messages using this CC number.
- CC Cycle "**CC CYCLE**": The pad will send the value with this CC number when you press it, one at a time, cycling through them with each press.
- CC Inc/Dec "**CC INC/DC**": The pad will send the next (Increment) or previous (Decrement) value number in the range of values when you press it.
- Program "**PROGRAM**": The pad will send this program number when you press it.
- Program Cycle "**PRG CYCL**": The pad will send the value with this Program number when you press it, one at a time, cycling through them with each press.
- Inc/Dec "**PG IN/DC**": The pad will send the next (Increment) or previous (Decrement) program number in the range of programs when you press it.
- Zone "**ZONE**": The pad will activate or deactivate the selected Zones assigned to the keybed.

When set to Note, these are the available parameters:
Note: The pad will send its MIDI messages using this Note number.
Available Values: C-2 – G8

Latch: When set to Latch On, the pad will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press. When set to Latch Off, the pads will send one value when pressed and one value when released.
Available Values: On/Off

Note On: When Latch is active, the pad will send the MIDI note number with this velocity when you press it to turn it on.

Available Values: 0-127

Note Off: When Latch is active, the pad will send the MIDI note number with this velocity when you press it to turn it off.

Available Values: 0-127

When set to CC, these are the available parameters:

CC: The pad will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The pad will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The pad will send the MIDI CC number with this value when you release it.

Available Values: 0-127

When set to CC Cycle, these are the available parameters:

CC: The pad will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The pad will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The pad will send the MIDI CC number with this value when you release it.

Available Values: 0-127

Values: The pad will send the value with this CC number when you press it, one at a time, cycling through them with each press.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First Value:

Available Values: 0-127

Second Value:

Available Values: 0-127

Third Value:
Available Values: 0-127

Last:
Available Values: 0-127

When set to CC IN/DC, these are the available parameters:
CC: The pad will send its MIDI messages using this CC number.
Available Values: 0-127

Type: The pad will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest value in the range of values will correspond with this setting.
Available Values: 0-127

Max: The highest value in the range of values will correspond with this setting.
Available Values: 0-127

When set to Program, these are the available parameters:
Program: The pad will send this program number when you press it.
Available Values: 0-127

MSB: The pad will send this Bank MSB (Most Significant Byte) number when you press it.
Available Values: 0-127

LSB: The pad will send this Bank LSB (Least Significant Byte) number when you press it.
Available Values: 0-127

When set to Program Cycle, these are the available parameters:
Values: The pad will cycle through this many Program values (one at a time) when you press it: **1 Values**, **2 Values**, **3 Values**, or **4 Values**.
Available Values:

- 2 Values
- 3 Values
- 4 Values

First: The pad will send this Program message first when you press it.
Available Values: 0-127

Second: The pad will send this Program message second when you press it.
Available Values: 0-127

Third: The pad will send this Program message third when you press it.
Available Values: 0-127

Last: The pad will send this Program message last when you press it.
Available Values: 0-127

When set to Program IN/DC (PG IN/DC), these are the available parameters:
Type: The pad will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest Program value in the range of values will correspond with this setting.
Available Values: 0-127

Max: The highest Program value in the range of values will correspond with this setting.
Available Values: 0-127

When set to Zone, these are the available parameters:
Zone 1: When set to On, the pad will activate Zone 1. When set to Off, the pad will deactivate Zone 1.

Zone 2: When set to On, the pad will activate Zone 2. When set to Off, the pad will deactivate Zone 2.

Zone 3: When set to On, the pad will activate Zone 3. When set to Off, the pad will deactivate Zone 3.

Zone 4: When set to On, the pad will activate Zone 4. When set to Off, the pad will deactivate Zone 4.

Encoder Turn

To edit the turn functionality of the Encoder when in Preset Edit Mode, press and hold the **SHIFT** button and move the **ENCODER**. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Encoder will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

Available Values: Global, 1-16, Zone 1-4, Omni

Message:

- Same as DAW **"DAW":** This assignment will match the message assigned to the Hammer 88 Pro's current DAW selection's Encoder.
- Program Cycle **"PRG CYCL":** This is useful for selecting between different presets in software or external MIDI hardware. Select from 2-4 program messages.
- Program Inc/Dec **"PG IN/DC"**: This is useful to scroll through multiple program messages.
- CC Cycle **"CC CYCLE":** This useful for controlling from 2-4 CC values, as seen on a button or virtual instrument control with 2-4 parameters. Select from 2-4 values.
- CC Inc/Dec **"CC IN/DC":** This is useful for scrolling through several CC values.
- CC Relative **"CC RELTV":** This is useful for controlling endless Encoders in software. Select from Right 65, Left 63; Right 63, Left 65; Right 127, Left 01; Right 01, Left 127.

When set to Program Cycle, these are the available parameters:

Values: The Encoder will cycle through this many Program values (one at a time) when you turn it: **1 Values**, **2 Values**, **3 Values**, or **4 Values**.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First: The Encoder will send this Program message first when you press it.

Available Values: 0-127

Second: The Encoder will send this Program message second when you press it.

Available Values: 0-127

Third: The Encoder will send this Program message third when you press it.

Available Values: 0-127

Last: The Encoder will send this Program message last when you press it.

Available Values: 0-127

When set to Program IN/DC (PG IN/DC), these are the available parameters:

Type: The Encoder will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you turn it.

Minimum: The lowest Program value in the range of values will correspond with this setting.
Available Values: 0-127

Maximum: The highest Program value in the range of values will correspond with this setting.
Available Values: 0-127

When set to CC Cycle, these are the available parameters:

CC: The Encoder will send its MIDI messages using this CC number.
Available Values: 0-127

Values: The Encoder will send the value with this CC number when you turn it, one at a time, cycling through them with each notch.
Available Values:

- 2 Values
- 3 Values
- 4 Values

First: The Encoder will send the MIDI CC number with this value when you first turn it.
Available Values: 0-127

Second: The Encoder will send the MIDI CC number with this value at the second notch of the turn.
Available Values: 0-127

Third: The Encoder will send the MIDI CC number with this value at the third notch of the turn.
Available Values: 0-127

Last: The Encoder will send the MIDI CC number with this value at the final notch of the turn.
Available Values: 0-127

When set to CC IN/DC, these are the available parameters:

CC: The Encoder will send its MIDI messages using this CC number.
Available Values: 0-127

Min: The lowest value in the range of values will correspond with this setting.
Available Values: 0-127

Max: The highest value in the range of values will correspond with this setting.

Available Values: 0-127

When set to CC Relative, these are the available parameters:

CC: The Encoder will send its MIDI messages using this CC number.

Available Values: 0-127

Type: The Encoder will send a value number in the range of values when you turn it left or right.

Available Values:

- **Right 65, Left 63**
- **Right 63, Left 65**
- **Right 127, Left 01**
- **Right 01, Left 127**

Encoder Press

To edit the press functionality of the Encoder when in Preset Edit Mode, press and hold the **SHIFT** button and press the **ENCODER**. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Encoder will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

Available Values: Global, 1-16, Zone 1-4, Omni

Assign:

- Same as DAW **"DAW":** This assignment will match the message assigned to the Hammer 88 Pro's current DAW selection's Encoder press.
- **CC:** When set to **CC**, the Encoder press will send standard MIDI CC messages to your virtual instrument.
- **Program:** The Encoder will send its MIDI messages using the selected **Program** number and **MSB** and **LSB** values.

When set to CC, these are the available parameters:

CC: The Encoder will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The Encoder will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The Encoder will send the MIDI CC number with this value when you release it.

Available Values: 0-127

When set to Program, these are the available parameters:

Program: The Encoder will send this program number when you press it.

Available Values: 0-127

M-AUDIO

MSB: The Encoder will send this Bank MSB (Most Significant Byte) number when you press it.

Available Values: 0-127

LSB: The Encoder will send this Bank LSB (Least Significant Byte) number when you press it.

Available Values: 0-127

Back Button

To edit the functionality of the Back button when in Preset Edit Mode, press and hold the **SHIFT** button and press the **Back** button. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Back button will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

Available Values: Global, 1-16, Zone 1-4, Omni

Assign:

- Same as DAW **"DAW":** This assignment will match the message assigned to the Hammer 88 Pro's current DAW selection's Back button.
- **CC:** When set to **CC**, the Back button will send standard MIDI CC messages to your virtual instrument.
- **Program:** The Back button will send its MIDI messages using the selected **Program** number and **MSB** and **LSB** values.

When set to CC, these are the available parameters:

CC: The Back buton will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The Back button will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The Back button will send the MIDI CC number with this value when you release it.

Available Values: 0-127

When set to Program, these are the available parameters:

Program: The Back button will send this program number when you press it.

Available Values: 0-127

MSB: The Back button will send this Bank MSB (Most Significant Byte) number when you press it.

Available Values: 0-127

LSB: The Back button will send this Bank LSB (Least Significant Byte) number when you press it.

Available Values: 0-127

Clip Buttons

To edit the functionality of a Clip button when in Preset Edit Mode, press a Clip button. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Note: What some parameter values are set to will affect what parameters are available for editing. For example, if the Button's Mode parameter is changed from Note to Program, it will change the editable parameters from Note parameters to Program parameters.

Channel: The Clip button will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

Available Values: Global, 1-16, Zone 1-4, Omni

Mode "MODE":

- CC **"CC":** The Clip button will send its MIDI messages using this CC number.
- CC Cycle **"CC CYCLE":** The Clip button will send the value with this CC number when you press it, one at a time, cycling through them with each press.
- CC Inc/Dec **"CC INC/DC":** The Clip button will send the next (Increment) or previous (Decrement) value number in the range of values when you press it.
- Program **"PROGRAM":** The Clip button will send this program number when you press it.
- Program Cycle **"PRG CYCL":** The Clip button will send the value with this Program number when you press it, one at a time, cycling through them with each press.
- Inc/Dec **"PG IN/DC":** The Clip button will send the next (Increment) or previous (Decrement) program number in the range of programs when you press it.
- Note **"NOTE":** The Clip button will send its MIDI messages using this Note number.

When set to CC, these are the available parameters:

CC: The Clip button will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The Clip button will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The Clip button will send the MIDI CC number with this value when you release it.

Available Values: 0-127

When set to CC Cycle, these are the available parameters:

CC: The Clip button will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The Clip button will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The Clip button will send the MIDI CC number with this value when you release it.

Available Values: 0-127

Values: The Clip button will send the value with this CC number when you press it, one at a time, cycling through them with each press.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First Value:

Available Values: 0-127

Second Value:

Available Values: 0-127

Third Value:

Available Values: 0-127

Last:

Available Values: 0-127

When set to CC IN/DC, these are the available parameters:

CC: The Clip button will send its MIDI messages using this CC number.

Available Values: 0-127

Type: The Clip button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest value in the range of values will correspond with this setting.

Available Values: 0-127

Max: The highest value in the range of values will correspond with this setting.

Available Values: 0-127

When set to Program, these are the available parameters:

Program: The Clip button will send this program number when you press it.

Available Values: 0-127

MSB: The Clip button will send this Bank MSB (Most Significant Byte) number when you press it.

Available Values: 0-127

LSB: The Clip button will send this Bank LSB (Least Significant Byte) number when you press it.

Available Values: 0-127

When set to Program Cycle, these are the available parameters:

Values: The Clip button will cycle through this many Program values (one at a time) when you press it: **2 Values**, **3 Values**, or **4 Values**.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First: The Clip button will send this Program message first when you press it.

Available Values: 0-127

Second: The Clip button will send this Program message second when you press it.

Available Values: 0-127

Third: The Clip button will send this Program message third when you press it.

Available Values: 0-127

Last: The Clip button will send this Program message last when you press it.

Available Values: 0-127

When set to Program IN/DC (PG IN/DC), these are the available parameters:

Type: The Clip button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest Program value in the range of values will correspond with this setting.

Available Values: 0-127

Max: The highest Program value in the range of values will correspond with this setting.

Available Values: 0-127

When set to Note, these are the available parameters:

Note: The Clip button will send its MIDI messages using this Note number.

Available Values: C-2 – G8

Latch: When set to Latch On, the Clip button will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press. When set to Latch Off, the Clip button will send one value when pressed and one value when released.

Available Values: On/Off

Note On: When Latch is active, the Clip button will send the MIDI note number with this velocity when you press it to turn it on.

Available Values: 0-127

Note Off: When Latch is active, the Clip button will send the MIDI note number with this velocity when you press it to turn it off.

Available Values: 0-127

Expression Pedal

To edit the functionality of the expression pedal input when in Preset Edit Mode, press the expression pedal. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

- **Chan:** The sustain pedal will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

- **CC:** The sustain pedal will send its MIDI messages using this CC number.

- **Min:** The lowest program in the range of programs will correspond with this value.

- **Max:** The highest program in the range of programs will correspond with this value.

FS2

To edit the functionality of the FS2 (footswitch 2) input when in Preset Edit Mode, press the footswitch. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

- **Latch:** When Latch is enabled, the pedal will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press ("latching" or "toggle" behavior). When Latch is disabled, the pedal will send one value when pressed and one value when released ("momentary" behavior).

- **Chan:** The sustain pedal will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

- **CC:** The sustain pedal will send its MIDI messages using this CC number.

- **Min:** The lowest program in the range of programs will correspond with this value.

- **Max:** The highest program in the range of programs will correspond with this value.

FS3

To edit the functionality of the FS3 (footswitch 3) input when in Preset Edit Mode, press the footswitch. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

- **Latch:** When Latch is enabled, the pedal will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press ("latching" or "toggle" behavior). When Latch is disabled, the pedal will send one value when pressed and one value when released ("momentary" behavior).

- **Chan:** The sustain pedal will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**), a zone (**Zone 1–4**), or all channels (**Omni**).

- **CC:** The sustain pedal will send its MIDI messages using this CC number.

- **Min:** The lowest program in the range of programs will correspond with this value.

- **Max:** The highest program in the range of programs will correspond with this value.

Saving a Preset

To store a Preset:
1. Press **SHIFT** and the **Preset** button to enter Edit Mode.
2. Edit a control as outlined in the *Preset Edit Mode* section of this guide.
3. Press the **Preset** button.
4. The display will show "**SAVE?**" with the following selections available.
    - **Cancel:** Selecting "Yes" to **Cancel** will revert any changes made.
    - **Replace:** Selecting "Yes" to **Replace** will write over the currently selected preset.
    - **Save As:** Selecting "Yes" to **Save As** enable you to choose what number "**LOCATION**" the preset will be and edit/change what the preset's name "**NAME**" is. The last available selection in the **Save As** screen is **Save.** Pressing "**Yes**" on the **Save** screen will save your new preset.

    Note: When editing a preset name, use the Encoder to scroll to a letter you want to edit and press the Encoder to select the current letter. To erase a letter in a preset name, press **SHIFT** and the **Back** button.

M-AUDIO

DAW Edit Mode

When **SHIFT** is pressed and held and the DAW button is pressed, it will enter into editing the User DAW.

The default parameter to be edited will be the current User DAW's Fader 1 assignment. However, once a different control is moved, or pressed, for example Knob 1, it will activate that selected control for editing.

Storing a User DAW

To store a User DAW:

1. Press **SHIFT** and the **DAW** button to enter Edit Mode.
2. Edit a control as outlined in the *DAW Edit Mode* section of this guide.
3. Press the **DAW** button.
4. The display will show "**SAVE?**" with the following selections available.

   - **Cancel:** Selecting "Yes" to **Cancel** will revert any changes made.
   - **Replace:** Selecting "Yes" to **Replace** will write over the currently selected preset.
   - **Save As:** Selecting "Yes" to **Save As** enable you to edit/change what the DAW's name "**NAME**" is. The last available selection in the **Save As** screen is **Save.** Pressing "**Yes**" on the **Save** screen will save your new User DAW.

   Note: When editing a DAW name, use the Encoder to scroll to a letter you want to edit and press the Encoder to select the current letter. To erase a letter in a DAW name, press **SHIFT** and the **Back** button.

Faders

To edit the Faders controls when in DAW Edit Mode, move a Fader. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Fader will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**).

Available Values: Global, 1-16

Message "MESSAGE":

- Mackie **"Mackie":** When set to **Mackie Control**, you can use the fader with a DAW that responds to Mackie Control mode.
- Mackie/HUI **"MACK/HUI":** When set to **Mackie/HUI**, you can use the fader with a DAW that responds to HUI mode.
- CC **"CC":** The fader will send its MIDI messages using this CC number.

CC: The fader will send its MIDI messages using this CC number.

Available Values: 0-127

Minimum Value: The fader's minimum position will correspond with this value. You can reverse the fader's polarity by making this value larger than the **Maximum** value.

Available Values: 0-127

Maximum Value: The fader's maximum position will correspond with this value. You can reverse the fader's polarity by making this value smaller than the **Minimum** value.

Available Values: 0-127

Knobs

To edit one of the Knobs when in DAW Edit Mode, move a Knob. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Knob will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**)

Available Values: Global, 1-16

Message "MESSAGE":

- Mackie **"Mackie":** When set to **Mackie Control**, you can use the knob with a DAW that responds to Mackie Control mode.
- Mackie/HUI **"MACK/HUI":** When set to **Mackie/HUI**, you can use the knob with a DAW that responds to HUI mode.
- CC **"CC":** The fader will send its MIDI messages using this CC number.

CC: The knob will send its MIDI messages using this CC number.

Available Values: 0-127

Minimum Value: The knob's minimum position will correspond with this value. You can reverse the knob's polarity by making this value larger than the **Maximum** value.

Available Values: 0-127

Maximum Value: The knob's maximum position will correspond with this value. You can reverse the knob's polarity by making this value smaller than the **Minimum** value.

Available Values: 0-127

M-AUDIO

Fader Buttons

To edit one of the Fader Buttons when in DAW Edit Mode, press a fader button. After you've selected which button you would like to edit you will need to select what button you are editing per Mode. This enables you to have 4 different button messages for 1 button depending on the MODE – Rec, Select, Solo and Mute. For example, fader button 1 can send a CC message on channel 1 when MODE is set to Record, and then when the MODE is set to Select fader button 1 can send a CC message on channel 2. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Mode "MODE":

- Record **"RECORD":** The fader button's message when the MODE is set to RECORD.
- Select **"SELECT":** The fader button's message when the MODE is set to SELECT.
- Mute **"MUTE":** The fader button's message when the MODE is set to MUTE.
- Solo **"SOLO":** The fader button's message when the MODE is set to SOLO.

Channel: The fader button will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**).

Available Values: Global, 1-16

Message "MESSAGE":

- Mackie/HUI **"MACK/HUI":** When set to **Mackie/HUI**, you can use the button with a DAW that responds to HUI mode's Rec, Select, Mute, and Solo controls.
- Mackie **"MACKIE":** When set to Mackie Control, you can use the Encoder with a DAW that responds to Mackie Control mode's Rec, Select, Mute, and Solo controls.
- Program **"PROGRAM":** The fader button will send this program number when you press it.
- Program Cycle **"PRG CYCL":** The fader button will send the value with this Program number when you press it, one at a time, cycling through them with each press.
- Program Inc/Dec **"PG IN/DC":** The fader button will send the next (Increment) or previous (Decrement) program number in the range of programs when you press it.
- CC **"CC":** The fader button will send its MIDI messages using this CC number.
- CC Cycle **"CC CYCLE":** The fader button will send the value with this CC number when you press it, one at a time, cycling through them with each press.
- CC Inc/Dec **"CC INC/DC":** The fader button will send the next (Increment) or previous (Decrement) value number in the range of values when you press it.
- Note **"NOTE":** The fader button will send its MIDI messages using this Note number.

When set to Program, these are the available parameters:

Program: The fader button will send this program number when you press it.

Available Values: 0-127

MSB: The fader button will send this Bank MSB (Most Significant Byte) number when you press it.

Available Values: 0-127

LSB: The fader button will send this Bank LSB (Least Significant Byte) number when you press it.

Available Values: 0-127

When set to Program Cycle, these are the available parameters:

Values: The fader button will cycle through this many Program values (one at a time) when you press it: **1 Values**, **2 Values**, **3 Values**, or **4 Values**.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First: The fader button will send this Program message first when you press it.

Available Values: 0-127

Second: The fader button will send this Program message second when you press it.

Available Values: 0-127

Third: The fader button will send this Program message third when you press it.

Available Values: 0-127

Last: The fader button will send this Program message last when you press it.

Available Values: 0-127

When set to Program IN/DC (PG IN/DC), these are the available parameters:

Type: The fader button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest Program value in the range of values will correspond with this setting.

Available Values: 0-127

Max: The highest Program value in the range of values will correspond with this setting.

Available Values: 0-127

When set to CC, these are the available parameters:

CC: The fader button will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The fader button will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The fader button will send the MIDI CC number with this value when you release it.
Available Values: 0-127

When set to CC Cycle, these are the available parameters:
CC: The fader button will send its MIDI messages using this CC number.
Available Values: 0-127

Press: The fader button will send the MIDI CC number with this value when you press it.
Available Values: 0-127

Release: The fader button will send the MIDI CC number with this value when you release it.
Available Values: 0-127

Values: The fader button will send the value with this CC number when you press it, one at a time, cycling through them with each press.
Available Values:

- 2 Values
- 3 Values
- 4 Values

First Value:
Available Values: 0-127

Second Value:
Available Values: 0-127

Third Value:
Available Values: 0-127

Last:
Available Values: 0-127

When set to CC IN/DC, these are the available parameters:
CC: The fader button will send its MIDI messages using this CC number.
Available Values: 0-127

Type: The fader button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest value in the range of values will correspond with this setting.
Available Values: 0-127

Max: The highest value in the range of values will correspond with this setting.

Available Values: 0-127

When set to Note, these are the available parameters:

Note: The fader button will send its MIDI messages using this Note number.

Available Values: C-2 – G8

Latch: When set to Latch On, the fader button will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press. When set to Latch Off, the fader buttons will send one value when pressed and one value when released.

Available Values: On/Off

Note On: When Latch is active, the fader button will send the MIDI note number with this velocity when you press it to turn it on.

Available Values: 0-127

Note Off: When Latch is active, the fader button will send the MIDI note number with this velocity when you press it to turn it off.

Available Values: 0-127

Pads

To edit one of the Pads when in DAW Edit Mode, press a Pad. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The pad will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**)

Available Values: Global, 1-16

Color 1: Select the primary color that you want to assign to the pad.

Available Values: Off "**OFF**", Chartreuse "**CHAR.**", Green "**GREEN**", Aquamarine "**AQUA**", Cyan "**CYAN**", Azure "**AZURE**", Blue "**BLUE**", Violet "**VIOLET**", Magenta "**MAGENTA**", Rose "**ROSE**", Red "**RED**", Orange "**ORANGE**", Yellow "**YELLOW**", White "**WHITE**".

Color 2: Select the secondary color that you want to assign to the pad.

Available Values: Off "**OFF**", Chartreuse "**CHAR.**", Green "**GREEN**", Aquamarine "**AQUA**", Cyan "**CYAN**", Azure "**AZURE**", Blue "**BLUE**", Violet "**VIOLET**", Magenta "**MAGENTA**", Rose "**ROSE**", Red "**RED**", Orange "**ORANGE**", Yellow "**YELLOW**", White "**WHITE**".

M-AUDIO

Type "TYPE":

- Note **"NOTE":** The pad will send its MIDI messages using this Note number.
- CC **"CC":** The pad will send its MIDI messages using this CC number.
- Same as Preset **"PRESET":** When set to **PRESET**, the pads will send the same message assigned to the pads when in Preset mode.

When set to Note, these are the available parameters:

Note: The pad will send its MIDI messages using this Note number.

Available Values: C-2 – G8

Latch: When set to Latch On, the pad will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press. When set to Latch Off, the pads will send one value when pressed and one value when released.

Available Values: On/Off

Note On: When Latch is active, the pad will send the MIDI note number with this velocity when you press it to turn it on.

Available Values: 0-127

Note Off: When Latch is active, the pad will send the MIDI note number with this velocity when you press it to turn it off.

Available Values: 0-127

When set to CC, these are the available parameters:

CC: The pad will send its MIDI messages using this CC number.

Available Values: 0-127

Press: The pad will send the MIDI CC number with this value when you press it.

Available Values: 0-127

Release: The pad will send the MIDI CC number with this value when you release it.

Available Values: 0-127

Encoder Turn

To edit the turn functionality of the Encoder when in DAW Edit Mode, press and hold the **SHIFT** button and move the **ENCODER**. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Encoder will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**).
Available Values: Global, 1-16

Message:

- **Mode:** This will specify what message will be sent when the Encoder is turned.
    - ○ **CC Relative:** This is useful to send standard MIDI CC messages to your DAW.
    - ○ **CC Cycle:** This useful for controlling from 2 - 4 CC values, as seen on a button or VI control with 2-4 parameters. Select from 2-4 values.
    - ○ **CC Inc/Dec:** This is useful for scrolling through several CC values.
    - ○ **Program Cycle:** This is useful for selecting between different presets in software or external MIDI hardware. Select from 2-4 program messages.
    - ○ **Program INC/DEC:** This is useful to scroll through multiple program messages.
    - ○ **Mackie Up/Down:** This is useful to scroll up/down in a DAW that responds to Mackie Control Mode.
    - ○ **Mackie Left/Right:** This is useful to scroll left/right in a DAW that responds to Mackie Control Mode.
    - ○ **HUI Up/Down:** This is useful to scroll up/down in a DAW that responds to HUI mode.
    - ○ **HUI Left/Right:** This is useful to scroll left/right in a DAW that responds to HUI mode.
- **CC Relative Type:** The Encoder will send a value number in the range of values when you turn it left or right.
    - ○ **Right 65, Left 63**
    - ○ **Right 63, Left 65**
    - ○ **Right 127, Left 01**
    - ○ **Right 01, Left 127**
- **CC Cycle Mode Type:** The Encoder will send from 2 to 4 values when turned.
- **CC Cycle Value:** Specifies what CC value will be sent.
- **CC:** Selects the MIDI CC value that will be sent when the Encoder is turned.
- **Program Cycle Mode Type:** The Encoder will send from 2 to 4 values when turned.
- **Program:** Specifies what Program will be sent.

M-AUDIO

Encoder Press

To edit the press functionality of the Encoder when in DAW Edit Mode, press and hold the **SHIFT** button and press the **ENCODER**. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Encoder will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**).
Available Values: Global, 1-16

Message:

- **Mode:** This will specify what message will be sent when the Encoder is turned.
  - o **CC:** When set to **CC**, the Encoder will send standard MIDI CC messages to your DAW.
  - o **Program:** The Encoder will send its MIDI messages using the selected **Program** number and **MSB** and **LSB** values.
  - o **Mackie:** When set to **Mackie Control**, you can use the Encoder with a DAW that responds to Mackie Control mode.
  - o **Mackie/HUI:** When set to **Mackie/HUI**, you can use the Encoder with a DAW that responds to HUI mode.
- **CC:** Selects the MIDI CC value that will be sent when the Encoder is pressed.
- **Down:** The Encoder will send this CC value when you press it.
- **Up:** The Encoder will send this CC value when you release it.
- **Program:** The Encoder will send this program number when you press it.
- **MSB:** The Encoder will send this Bank MSB (Most Significant Byte) number when you press it.
- **LSB:** The Encoder will send this Bank LSB (Least Significant Byte) number when you press it.

Back Button

To edit the functionality of the Back button when in DAW Edit Mode, press and hold the **SHIFT** button and press the **Back** button. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Back button will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**)
Available Values: Global, 1-16, Zone 1-4, Omni

Message:

- **Mode:** This will specify what message will be sent when the Back button is pressed.
    o **CC:** When set to **CC**, the Back button will send standard MIDI CC messages to your DAW.
    o **Program:** The Back button will send its MIDI messages using the selected **Program** number and **MSB** and **LSB** values.
    o **Mackie:** When set to **Mackie Control**, you can use the Back button with a DAW that responds to Mackie Control mode.
    o **Mackie/HUI:** When set to **Mackie/HUI**, you can use the Back button with a DAW that responds to HUI mode.
- **CC:** Selects the MIDI CC value that will be sent when the Back button is pressed.
- **Down:** The Back button will send this CC value when you press it.
- **Up:** The Back button will send this CC value when you release it.
- **Program:** The Back button will send this program number when you press it.
- **MSB:** The Back button will send this Bank MSB (Most Significant Byte) number when you press it.
- **LSB:** The Back button will send this Bank LSB (Least Significant Byte) number when you press it.

M-AUDIO

Bank < and > Buttons

To edit the functionality of the Bank < or > buttons when in DAW Edit Mode, press and hold the **SHIFT** button and press the **BANK <** or **BANK >** button. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The Bank < or > button will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**)

Available Values: Global, 1-16

Message:

- **Mode:** This will specify what message will be sent when the Bank < or > button is pressed.
    - o **CC:** When set to **CC**, the Bank < or > button will send standard MIDI CC messages to your DAW.
    - o **Program:** The Bank < or > button will send its MIDI messages using the selected **Program** number and **MSB** and **LSB** values.
    - o **Mackie:** When set to **Mackie Control**, you can use the Bank < or > button with a DAW that responds to Mackie Control mode.
    - o **Mackie/HUI:** When set to **Mackie/HUI**, you can use the Bank < or > button with a DAW that responds to HUI mode.
- **CC:** Selects the MIDI CC value that will be sent when the Bank < or > button is pressed.
- **Down:** The Bank < or > button will send this CC value when you press it.
- **Up:** The Bank < or > button will send this CC value when you release it.
- **Program:** The Bank < or > button will send this program number when you press it.
- **MSB:** The Bank < or > button will send this Bank MSB (Most Significant Byte) number when you press it.
- **LSB:** The Bank < or > button will send this Bank LSB (Least Significant Byte) number when you press it.

Transport Control Buttons

To edit the functionality of the <<, >>, Loop, Stop, Play or Record buttons when in DAW Edit Mode, press the **<<, >>, Loop, Stop, Play or Record** button. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Channel: The <<, >>, Loop, Stop, Play or Record buttons will send their messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1**–**16**)

Available Values: Global, 1-16

Message:

- **Mode:** This will specify what message will be sent when the <<, >>, Loop, Stop, Play or Record button is pressed.
  - o **CC:** When set to **CC**, the <<, >>, Loop, Stop, Play or Record button will send standard MIDI CC messages to your DAW.
  - o **Program:** The <<, >>, Loop, Stop, Play or Record button will send its MIDI messages using the selected **Program** number and **MSB** and **LSB** values.
  - o **Mackie:** When set to **Mackie Control**, you can use the <<, >>, Loop, Stop, Play or Record button with a DAW that responds to Mackie Control mode.
  - o **Mackie/HUI:** When set to **Mackie/HUI**, you can use the <<, >>, Loop, Stop, Play or Record button with a DAW that responds to HUI mode.
- **CC:** Selects the MIDI CC value that will be sent when <<, >>, Loop, Stop, Play or Record button is pressed.
- **Down:** The <<, >>, Loop, Stop, Play or Record button will send this CC value when you press it.
- **Up:** The <<, >>, Loop, Stop, Play or Record button will send this CC value when you release it.
- **Program:** The <<, >>, Loop, Stop, Play or Record button will send this program number when you press it.
- **MSB:** The <<, >>, Loop, Stop, Play or Record button will send this Bank MSB (Most Significant Byte) number when you press it.
- **LSB:** The <<, >>, Loop, Stop, Play or Record button will send this Bank LSB (Least Significant Byte) number when you press it.

M-AUDIO

Clip Buttons

To edit the functionality of a Clip button when in DAW Edit Mode, press a Clip button. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Note: What some parameter values are set to will affect what parameters are available for editing. For example, if the Button's Mode parameter is changed from Note to Program, it will change the editable parameters from Note parameters to Program parameters.

Channel: The Clip button will send its messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**).
Available Values: Global, 1-16

Message "MESSAGE":

- CC **"CC":** The Clip button will send its MIDI messages using this CC number.
- CC Cycle **"CC CYCLE":** The Clip button will send the value with this CC number when you press it, one at a time, cycling through them with each press.
- CC Inc/Dec **"CC INC/DC":** The Clip button will send the next (Increment) or previous (Decrement) value number in the range of values when you press it.
- Program **"PROGRAM":** The Clip button will send this program number when you press it.
- Program Cycle **"PRG CYCL":** The Clip button will send the value with this Program number when you press it, one at a time, cycling through them with each press.
- Program Inc/Dec **"P. INC/DEC":** The Clip button will send the next (Increment) or previous (Decrement) program number in the range of programs when you press it.
- Note **"NOTE":** The Clip button will send its MIDI messages using this Note number.
- Mackie "**MACKIE**": When set to Mackie Control, you can use the button with a DAW that responds to Mackie Control mode.
- Mackie/HUI "**MACK/HUI**": When set to Mackie/HUI, you can use the button with a DAW that responds to HUI mode.

When set to CC, these are the available parameters:
CC: The Clip button will send its MIDI messages using this CC number.
Available Values: 0-127

Press: The Clip button will send the MIDI CC number with this value when you press it.
Available Values: 0-127

Release: The Clip button will send the MIDI CC number with this value when you release it.
Available Values: 0-127
When set to CC Cycle, these are the available parameters:
CC: The Clip button will send its MIDI messages using this CC number.
Available Values: 0-127

Press: The Clip button will send the MIDI CC number with this value when you press it.
Available Values: 0-127

Release: The Clip button will send the MIDI CC number with this value when you release it.
Available Values: 0-127

Values: The Clip button will send the value with this CC number when you press it, one at a time, cycling through them with each press.
Available Values:

- 2 Values
- 3 Values
- 4 Values

First Value:
Available Values: 0-127

Second Value:
Available Values: 0-127

Third Value:
Available Values: 0-127

Last:
Available Values: 0-127

When set to CC IN/DC, these are the available parameters:
CC: The Clip button will send its MIDI messages using this CC number.
Available Values: 0-127

Type: The Clip button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest value in the range of values will correspond with this setting.
Available Values: 0-127

Max: The highest value in the range of values will correspond with this setting.
Available Values: 0-127

When set to Program, these are the available parameters:
Program: The Clip button will send this program number when you press it.
Available Values: 0-127

MSB: The Clip button will send this Bank MSB (Most Significant Byte) number when you press it.
Available Values: 0-127

LSB: The Clip button will send this Bank LSB (Least Significant Byte) number when you press it.

Available Values: 0-127

When set to Program Cycle, these are the available parameters:

Values: The Clip button will cycle through this many Program values (one at a time) when you press it: **2 Values**, **3 Values**, or **4 Values**.

Available Values:

- 2 Values
- 3 Values
- 4 Values

First: The Clip button will send this Program message first when you press it.

Available Values: 0-127

Second: The Clip button will send this Program message second when you press it.

Available Values: 0-127

Third: The Clip button will send this Program message third when you press it.

Available Values: 0-127

Last: The Clip button will send this Program message last when you press it.

Available Values: 0-127

When set to Program IN/DC (PG IN/DC), these are the available parameters:

Type: The Clip button will send the next (**Increment**) or previous (**Decrement**) value number in the range of values when you press it.

Min: The lowest Program value in the range of values will correspond with this setting.

Available Values: 0-127

Max: The highest Program value in the range of values will correspond with this setting.

Available Values: 0-127

When set to Note, these are the available parameters:

Note: The Clip button will send its MIDI messages using this Note number.

Available Values: C-2 – G8

Latch: When set to Latch On, the Clip button will send one value when pressed and a different value when pressed a second time, alternating between the two values with each press. When set to Latch Off, the Clip button will send one value when pressed and one value when released.

Available Values: On/Off

Note On: When Latch is active, the Clip button will send the MIDI note number with this velocity when you press it to turn it on.

Available Values: 0-127

Note Off: When Latch is active, the Clip button will send the MIDI note number with this velocity when you press it to turn it off.

Available Values: 0-127

Shortcuts and Hot Keys

To edit the functionality of a Hot Key control – Metronome, or Pads 1 - 16 when in DAW Edit Mode, press and hold the **SHIFT** button and press the **TEMPO/METRO** button or one of the **PADs**. You can scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Note: What some parameter values are set to will affect what parameters are available for editing. For example, if the Button's Mode parameter is changed from Note to Program, it will change the editable parameters from Note parameters to Program parameters.

Mode "MODE":

- ASCII Shortcut Key message "**KEY**": Selects the PC keyboard key or PC keyboard key combination message.
- CC **"CC":** The Metronome button or Pad will send its Shortcut message using this CC number.
- Note **"NOTE":** The Metronome button or Pad will send its Shorcut message using this Note number.
- Off **"OFF":** The Metronome button or Pad will not send a Shorcut message when pressed.

Color "COLOR": Select the color that you want to assign to the Shortcut.

Key: Selects the QWERTY keyboard key that will be triggered by the pad or metronome.

Win Mod Key: Selects the Windows QWERTY keyboard key modifier that will be triggered by the pad or metronome.

Mac Mod Key: Selects the macOS QWERTY keyboard key modifier that will be triggered by the pad or metronome.

When set to CC, these are the available parameters:

CC: The Clip button will send its MIDI messages using this CC number.

Available Values: 0-127

M-AUDIO

DAW and Preset Buttons

Editing the DAW and Preset button requires pressing and holding the **SHIFT** button and pressing either the DAW or Preset button. You can then scroll through the available parameter values using the Encoder. Select what parameter you would like to edit by pressing the Encoder.

Note: What some parameter values are set to will affect what parameters are available for editing. For example, if the Button's Mode parameter is changed from Note to Program, it will change the editable parameters from Note parameters to Program parameters.

Channel: The DAW and Preset buttons will send their messages over this channel. Select the global channel (**Global**), a specific channel (**Channel 1–16**).

Available Values: Global, 1-16

Assignment "ASSIGN":

- Mackie "**MACKIE**": When set to Mackie Control, you can use the button with a DAW that responds to Mackie Control mode.
- Mackie/HUI "**MACK/HUI**": When set to Mackie/HUI, you can use the button with a DAW that responds to HUI mode.
- Program **"PROGRAM"**: The button will send this program number when you press it.
- CC **"CC"**: The button will send its MIDI messages using this CC number.
- Off **"OFF"**: The button will not send any messages when pressed.

When set to Program, these are the available parameters:

Program: The DAW and Preset buttons will send this program number when pressed.

Available Values: 0-127

MSB: The DAW and Preset buttons will send this Bank MSB (Most Significant Byte) number when pressed.

Available Values: 0-127

LSB: The DAW and Preset buttons will send this Bank LSB (Least Significant Byte) number when pressed.

Available Values: 0-127

When set to CC, these are the available parameters:

CC: The DAW and Preset buttons will send MIDI messages using this CC number.

Available Values: 0-127

Press: The DAW and Preset buttons will send the MIDI CC number with this value when pressed.

Available Values: 0-127

Release: The DAW and Preset buttons will send the MIDI CC number with this value when released.

Available Values: 0-127

Saving a User DAW

To store a User DAW:

1. Press **SHIFT** and the **DAW** button to enter Edit Mode.

2. Edit a control as outlined in the ***DAW Edit Mode*** section of this guide.

3. Press the **DAW** button.

4. The display will show "**SAVE?**" with the following selections available.

   - **Cancel:** Selecting "Yes" to **Cancel** will revert any changes made.

   - **Replace:** Selecting "Yes" to **Replace** will write over the currently selected preset.

   - **Save As:** Selecting "Yes" to **Save As** enable you to edit/change what the DAW's name "**NAME**" is. The last available selection in the **Save As** screen is **Save.** Pressing "**Yes**" on the **Save** screen will save your new User DAW.

Note: When editing a DAW name, use the Encoder to scroll to a letter you want to edit and press the Encoder to select the current letter. To erase a letter in a DAW name, press **SHIFT** and the **Back** button.

M-AUDIO

Advanced Settings

ARP and Latch Buttons

When the **ARP** button is pressed, it will activate the keyboard's internal arpeggiator. The arpeggiator's rate is based on the current Tempo and Time Division settings – Tempo settings are editable using the Tempo button. Time Division settings can be accessed by pressing fader buttons 1/4, 1/8, 1/16, 1/32 with the MODE LEDs off (Record, Select, Mute, Solo, and MIDI) or holding the **Note Repeat** button and turning the **Encoder.**

To activate the **ARP Latch** functionality, press the **ARP LATCH** button.

Note: You can also sync the Arpeggiator to either the current Tempo's BPM setting, or an external MIDI Clock source. The clock source can be edited in Preset Edit Mode and selecting/pressing the Tempo button. Arpeggiator functionality is available in the 2 keyboard modes, DAW, PRESET.

Note: You can change the Time Division settings to triplets by pressing the Time Division button twice. For example, if you wanted the arppegiator to play 1/16th note triplets you would press the 1/16 button twice. The 1/16 fader button would blink/flash to show that triplets were active.

To edit the arpeggiator, press **SHIFT** and the **ARP** button.

To edit the arpeggiator's type, click the **Encoder** in **Type**, and select the desired setting from the menu. The mode determines how the arpeggiated notes are played back:

- **Up:** Notes will sound from the lowest to the highest.
- **Down:** Notes will sound from the highest to lowest.
- **Inclusive:** Notes will sound from the lowest to the highest, and then back down. The lowest and highest notes will sound *twice* at the directional change.
- **Exclusive:** Notes will sound from the lowest to the highest, and then back down. The lowest and highest notes will sound only *once* at the directional change.
- **Order:** Notes will sound in the order they were pressed.
- **Random:** Notes will sound in random order.
- **Chord:** Notes will sound in a chord.

To set the arpeggiator's octave range, click the **Encoder** in **Octave**, and select the desired value: **1**, **2**, or **3** octaves. The Octave range determines how many octaves in the ARP will be played from a single key press. The more octaves, the more notes will be played by a single key.

To set the arpeggiator's gate, click the **Encoder** in **Gate**, and select the desired value from 5-100.The gate range determines how long a note in the will be played in the arp. The shorter the gate, the shorter the note.

To set the arpeggiator's swing, click the **Encoder** in **Swing**, and select the desired setting between 50% and 75%. The swing range determines how much deviation there will be from the patterned notes. The higher the swing, the larger the time deviation.

To set a Split for the arp, click the **Encoder** in **Split**, and select On. With Split active/on, the Arp can be assigned to a specific section of the keybed, like a Zone assignment.

Select First, to set the lowest key that will correspond to the arp range.

Select Last, to set the highest key that will correspond to the arp range.

Note: When the First or Last Note is selected in Arp Edit mode you can press a key on the keybed to enter the First or Last note. The enables you to make a quick selection and avoid using the Encoder to make a selection.

Select Channel, to set what channel the ARP split will send on.

Smart Chord Button

When this button is pressed, it will activate the keyboard's internal Smart Chord functionality. The Smart Chord functionality can function on notes being played on the keyboard or pads, or both depending on the selection in the **GLOBAL SETTINGS** menu. When Smart Chord mode is active a single key press will play a chord as selected in the current Smart Chord Edit options. This functionality is available in the 2 keyboard modes, DAW, PRESET.

To edit the Smart Chord settings**,** press **SHIFT** and the **CHORD** button.

Mode:
- **Smart** mode lets you select the key of the song (ex. C Major). When a key is pressed on the physical keyboard, a chord will play in that key.
- **Custom** mode lets you input a custom chord. Once a chord has been input, press a key on the physical keyboard to play a chord. To create a Custom chord, press the **Encoder** into the **Custom** field, then either use the **Encoder** to select the desired note, or press a key for the notes you would like to enter. There are 6 available **Notes** in Custom chord mode.
  - o **Note 1:** The first note in the custom Chord.
  - o **Note 2:** The second note in the custom Chord.
  - o **Note 3:** The third note in the custom Chord.
  - o **Note 4:** The fourth note in the custom Chord.
  - o **Note 5:** The fifth note in the custom Chord.
  - o **Note 6:** The sixth note in the custom Chord.
- **KEY:** Selects what key Smart Chord is in.
- **Type:** Selects what scale the chord will use, Major or Minor.
- **Voicing:** This lets you choose what fingerings are active in Smart Chord mode.

You can also edit parameters quickly using the keyboard's keys, while pressing and holding the SHIFT button.

To set a Split for Smart Chord, click the **Encoder** in **Split**, and select On. With Split active/on, Smart Chord can be assigned to a specific section of the keybed, like a Zone assignment.

M-AUDIO

Select First, to set the lowest key that will correspond to the Smart Chord range.

Select Last, to set the highest key that will correspond to the Smart Chord range.

Note: When the First or Last Note is selected in Chord Edit mode you can press a key on the keybed to enter the First or Last note. The enables you to make a quick selection and avoid using the Encoder to make a selection.

Select Channel, to set what channel the Smart Chord split will send on.

- **Split:** When Split is set to On, the Chord assignment can be assigned to a specific section of the keybed, like a Zone assignment.
- **Chan:** If Split is enabled, the Smart Chord will send its messages over this channel. Select the global channel (**Global**) or a specific channel (**Channel 1–16**).

Smart Scale Button

When this button is pressed, it will activate the keyboard's internal Smart Scale functionality. The current scale is based on the current Smart Scale settings (in the Smart Scale Edit menu). The Smart Scale functionality will only function on notes being played on the keyboard. When Smart Scale Mode is active, keys will only play notes in the key of the current key and scale selection. This functionality is available in the 2 keyboard modes, DAW, PRESET.

To edit the Smart Scale settings**,** press **SHIFT** and the **SCALE** button.

- **KEY:** Selects what key Smart Scale is in.
- **SCALE:** Selects what scale Smart Scale will use. Press the **Encoder** on **Scale** and select what scale you want to apply: **Chromatic**, **Major**, **Dorian**, **Phrygian**, **Lydian**, **Mixolydian**, **Minor Harmonic**, **Locrian**, **Minor**, **Minor Melodic**, **Pentatonic Major**, **Pentatonic Minor**, **Blues**, **Altered Dominant**, **Diminished Whole Half**, and **Whole Tone**.

To set a Split for Smart Scale, click the **Encoder** in **Split**, and select On. With Split active/on, Smart Scale can be assigned to a specific section of the keybed, like a Zone assignment.

Select First, to set the lowest key that will correspond to the Smart Chord range.

Select Last, to set the highest key that will correspond to the Smart Chord range.

Note: When the First or Last Note is selected in Scale Edit mode you can press a key on the keybed to enter the First or Last note. The enables you to make a quick selection and avoid using the Encoder to make a selection.

Select Channel, to set what channel the Smart Chord split will send on.

Global Settings

Pressing **SHIFT** and the **MODE/GLOBAL** button will enter into the Hammer 88 Pro's Global settings.

The Global Settings affect the overall operation of your Hammer 88 Pro, regardless of the current preset.

These are the available settings:

- Global Channel **"G.CHAN":** This menu lets you set the global channel (**Channel 1**–**16**). Any other controls or zones whose **Channel** settings are set to **Global** will send their messages using this channel.
- Program **"PROG.":** This field determines the number of the program change message that will be sent when you click **Send Settings**.
- MSB **"MSB":** This field determines the number of the Bank MSB (Most Significant Byte) message that will be sent when you click **Send Settings**.
  Note: A Bank LSB or Bank MSB number may not have any effect until you send a program change message after it.
- LSB **"B.LSB":** This field determines the number of the Bank LSB (Least Significant Byte) message that will be sent when you click **Send Settings**.
  Note: A Bank LSB or Bank MSB number may not have any effect until you send a program change message after it.
- Octave **"KEY OCT":** This field determines the current octave shift of the entire **keybed**.
  Note: The keyboard's overall octave and transposition are independent from the zones' octaves and transpositions, but all of these affect the note a key sends out.
- Transpose **"KEY TRAN":** This field determines the current transposition of the entire **keybed** (**-12** to **12**).
  Note: The keyboard's overall octave and transposition are independent from the zones' octaves and transpositions, but all of these affect the note a key sends out.
- Keybed Sensitivity **"K. SENS":** This field determines the velocity sensitivity of the **keybed**—the amount of force required to generate a note with a specific velocity. See *Appendix* > *Velocity Curves* > *Keyboard Sensitivity* for descriptions of the different settings.
- Pad Sensitivity **"PD SENS.":** This field determines the velocity sensitivity of the **pads**—the amount of force required to generate a note with a specific velocity. See *Appendix* > *Velocity Curves* > *Pad Sensitivity* for descriptions of the different settings.
- 5-Pin MIDI Output Messages **"MIDI OUT":** This field determines whether the 5-pin MIDI DIN connector on the rear panel will send MIDI data from just the Hammer 88 Pro's controls, pads, and keys (**Keys**), just from MIDI data received from a USB connected PC (**USB**), the Hammer 88 Pro's controls, pads, keys and connected PC (**Keys/USB**) or no MIDI data is sent (**Off**).
- **Operating System:** Set this option for the computer operating system you are using, **PC** or **macOS**. This ensures that your DAW Shortcuts work properly.
- **Chord Mode:** This field determines whether when Chord mode is active it will activate Chord Mode for the Keys, Pads, or Pads and Keys.

M-AUDIO

Appendix

Velocity Curves

Keyboard Sensitivity

K.SENS. will appear in the **display** when you are selecting the keyboard velocity curve.

Hammer 88 Pro Display	Description
Low	This is a low-sensitivity setting, useful for playing notes with mostly low velocities.
Medium	This is a medium-sensitivity setting (the default), useful for playing with an average amount of force.
High	This is a high-sensitivity setting, useful for playing notes with mostly high velocities.
Linear	This is a linear curve. The velocity of the note will be proportional to the amount of force.
Fixed 64	All notes will have a fixed velocity of **64**.
Fixed 100	All notes will have a fixed velocity of **100**.
Fixed 127	All notes will have a fixed velocity of **127**.

Pad Sensitivity

PD.SENS. will appear in the **display** when you are selecting the pads' velocity curve.

Hammer 88 Pro Display	Description
Low	This is a low-sensitivity setting, useful for playing notes with mostly low velocities.
Medium	This is a medium-sensitivity setting (the default), useful for playing with an average amount of force.
High	This is a high-sensitivity setting, useful for playing notes with mostly high velocities.
Linear	This is a linear curve. The velocity of the note will be proportional to the amount of force.
Fixed 64	All notes will have a fixed velocity of **64**.
Fixed 100	All notes will have a fixed velocity of **100**.
Fixed 127	All notes will have a fixed velocity of **127**.
Fixed 64,127	All notes will have a velocity of **64** or **127**, depending on the amount of force.
Fixed 64, 100, 127	All notes will have a velocity of **64**, **100**, or **127**, depending on the amount of force.
Fixed 32, 64, 100, 127	All notes will have a velocity of **32**, **64**, **100**, or **127**, depending on the amount of force.

M-AUDIO

Pad LED Color List

NAME	COLOR
OFF	LED OFF
CHAR.	CHARTREUSE
GREEN	GREEN
AQUA	AQUAMARINE
CYAN	CYAN
AZURE	AZURE
BLUE	BLUE
VIOLET	VIOLET
MAGENTA	MAGENTA
ROSE	ROSE
RED	RED
ORANGE	ORANGE
YELLOW	YELLOW
WHITE	WHITE

Preset List

1.	MPC Pl (MPC Plugin)	9.	Preset
2.	Hybrid (Hybrid 3)	10.	Preset
3.	MiniGrd (MiniGrand)	11.	Preset
4.	Velvet	12.	Preset
5.	Xpand (Xpand!2)	13.	Preset
6.	Vacuum	14.	Preset
7.	Boom	15.	Preset
8.	DB33	16.	Preset

DAW List

1.	Pro Tools	7.	Logic
2.	MPC (MPC Beats)	8.	Bitwig
3.	Ableton (Ableton Live)	9.	Garage (Garage Band)
4.	Studio One	10.	Reaper
5.	Reason	11.	FL St. (FL Studio)
6.	Cubase	12.	User DAW

MIDI Ports

Oyxgen Pro Output Ports

Messages	Windows	macOS
Preset Mode Controls, Keys, Pads, Timing Clock Messages	Hammer 88 Pro ##	USB MIDI
5-Pin MIDI DIN Out	MIDIIN2 (Hammer 88 Pro ##)	MIDI DIN
DAW Mode Controls, Pads	MIDIOUT3 (Hammer 88 Pro ##)	MACKIE/HUI
Preset Editor	MIDIOUT4 (Hammer 88 Pro ##)	EDITOR

Oyxgen Pro Input Ports

Messages	Windows	macOS
Timing Clock Messages In	Hammer 88 Pro ##	USB MIDI
5-Pin MIDI DIN In	MIDIIN2 (Hammer 88 Pro ##)	MIDI DIN
DAW LED control, and Mackie/HUI Heartbeat Messages	MIDIIN3 (Hammer 88 Pro ##)	MACKIE/HUI
Preset Editor	MIDIIN4 (Hammer 88 Pro ##)	EDITOR

Available Shortcut ASCII Messages

KEY

0	0	j	j	F2	F2
1	1	k	k	F3	F3
2	2	l	l	F4	F4
3	3	m	m	F5	F5
4	4	n	n	F6	F6
5	5	o	o	F7	F7
6	6	p	p	F8	F8
7	7	q	q	F9	F9
8	8	r	r	F10	F10
9	9	s	s	F11	F11
a	a	t	t	F12	F12
b	b	u	u	BckSP	BK SPACE
c	c	v	v	Return	RETURN
d	d	w	w	Up	UP
e	e	x	x	Down	DOWN
f	f	y	y	Left	LEFT
g	g	z	z	Right	RIGHT
h	h	Spacebar	SPACE	tab	TAB
i	i	F1	F1	Comma	COMMA

M-AUDIO

KEY

.	.	Num 1	NUM. 1
'	'	Num 2	NUM. 2
[	[	Num 3	NUM. 3
]	]	Num 4	NUM. 4
\	\	Num 5	NUM. 5
/	/	Num 6	NUM. 6
`	`	Num 7	NUM. 7
;	;	Num 8	NUM. 8
-	-	Num 9	NUM. 9
+	+	Num 0	NUM. 0
*	*	No Message	NO MSG.
=	=		
ESC	ESC		
Insert	INSERT		
Home	HOME		
Page Up	PAGE UP		
Delete	DELETE		
End	END		
Page Down	PG DOWN		

KEY MODIFIERS – Windows

No Message	NO MSG.	W - Ctrl and ALT	CTL ALT
W - SHIFT	SHIFT	W – Win and ALT	WIN ALT
W - CTRL	CTRL	W – SHIFT, Ctrl, and Win	CTL WIN
W - Win	WIN.	W –SHIFT, Ctrl and Alt	S CTL ALT
W - Alt	ALT	W – SHIFT, Win, and Alt	S WIN ALT
W – SHIFT and CTRL	SH. CTL	W – Ctrl, Win, and Alt	C WIN ALT
W – SHIFT and Win	SH. WIN		
W - SHIFT and Alt	SH. ALT		
W – CTRL and Win	CTL WIN		

KEY MODIFIERS - macOS

No Message	NO MSG.	M - CTRL and Option	CTRL OPT
M - SHIFT	SHIFT	M - CMD and OPT	CMD OPT
M - Ctrl	CTRL	M - SHIFT, Ctrl, and CMD	S CTL CD
M - Command	COMMND	M - SHIFT, CTRL, and OPT	S CTL OPT
M - CMD	CMD	M - SHIFT, OPT, and CMD	S OPT CD
M - Option	OPTION	M - CTRL, CMD, and OPT	C CMD OP
M – SHIFT and Command	SH. COMD	M - SHIFT, CTRL, and OPT	S CTL OPT
M - SHIFT and OPT	SH. OPT	M - SHIFT, OPT, and CMD	S OPT CD
M - SHIFT and CMD	SH. CMD	M - CTRL, CMD, and OPT	C CMD OP
M - CTRL and CMD	CTRL CMD		

Factory Reset

To restore your Hammer 88 Pro's controls, Presets, and DAWs to their factory default settings power off the Hammer 88 Pro, then press and hold the **Octave +** and **–** buttons and power on the Hammer 88 Pro.

Technical Specifications

Power	9V DC, 800 mA
Dimensions (Width x Depth x Height)	56.0" x 11.1" x 5.0" 142.2 x 28.2 x 12.7 cm
Weight	40.8 lbs. / 18.5 kg

Specifications are subject to change without notice.

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