

**AKAI<sup>®</sup>**  
**PROFESSIONAL**

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**MPCX**  
MUSIC PRODUCTION CENTER

**User Guide**

English

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## Introduction

Thanks for choosing the MPC X. Fusing Akai Professional's legendary MPC layout and workflow with multi-core processing power, MPC X is an unrivaled instrument for music production.

Introducing a new approach to music production with an ultra-fast and super-intuitive workflow, the MPC X is powered by a radiant 10.1-inch color multi-touch display. Literally grab and pinch waveforms, draw MIDI events, adjust envelopes, chop samples, add effects and precisely set your controls using your fingertips. Combined with the classic MPC feel, sound and vastly improved pads, the MPC X embodies the best elements of our past while taking music production tech into the future.

Welcome to the MPC family.

### Akai Professional

## System Requirements & Product Support

For the latest information about this product (system requirements, compatibility information, etc.) and product registration, visit [akaipro.com](http://akaipro.com).

For additional support, visit [akaipro.com/support](http://akaipro.com/support).

## About This User Guide

This manual should help you get familiar with using the MPC X. For consistency, the terminology throughout is based on the MPC parameter names. We also used specific formatting to indicate particular topics of significance:

**Important/Note/Tip:** Important or helpful information on a given topic.

Names of buttons, controls, parameters, settings, and other options are written in **bold** characters throughout the manual.

**Examples:** Press the **Play Start** button.

Turn **Q-Link Knob 4**.

Tap the **Mute** button.

The **Velocity** ranges from **0** to **127**.

Set the **Sample Play** selector to **One Shot**.

Tap **BPM**, and then use the numeric keypad to enter **120** as the tempo.

Some parts of this manual refer to other relevant chapters or sections, which are cited in **bold, italic blue** characters. Click the text to skip immediately to that section.

**Examples:** Read the ***Important Notes*** section before proceeding.

For more information about installing the necessary drivers and software, see ***Setup > 2. Installation***.

To learn more about using send effects, see ***General Features > Effects > Send/Return Effects***.

## Important Notes

Read the included safety & warranty manual before using MPC X.

Before getting started and connecting devices to MPC X or turning the hardware on/off, make sure all devices are switched off.

### To use MPC X in Controller Mode (to control the MPC software):

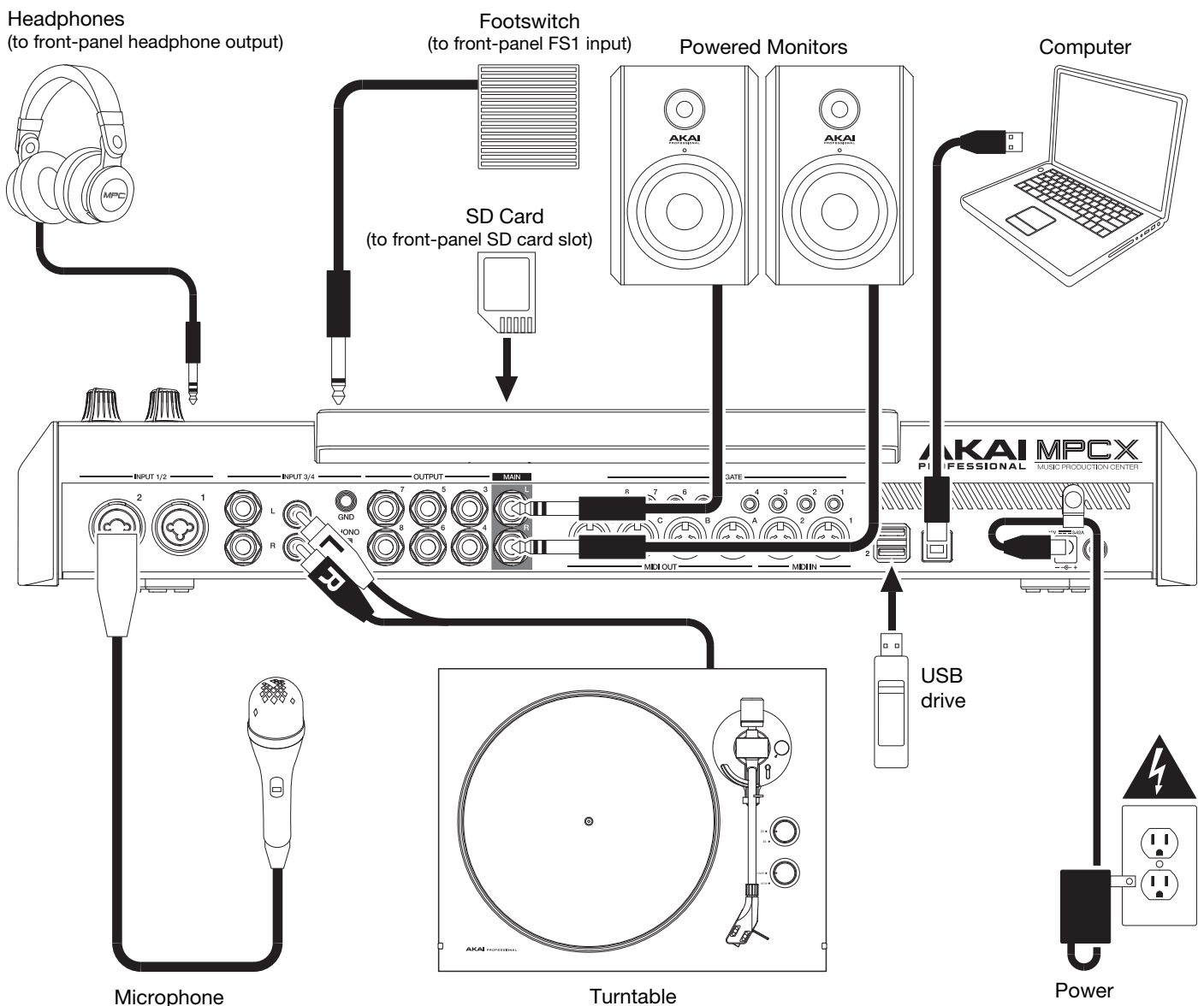
Before installing the MPC software, make sure your computer meets the system requirements described at [akaipro.com](http://akaipro.com). This applies whether you'll use MPC software as your host software or as a plugin in another digital audio workstation (DAW).

Before connecting MPC X to your computer, install the drivers and software. Visit [akaipro.com](http://akaipro.com) to download the latest versions. Refer to the [Installation](#) section for more information.

## Setup

### 1. Connection

Here is just an example of how to use MPC X in your setup. Items not listed under [Introduction > Box Contents](#) of your included quickstart guide are sold separately.



Remember to remove the protective film from the MPC X touchscreen!

**To use MPC X in Standalone Mode**, just connect it to a power outlet using the included power adapter, and power it on!

**Note:** We highly recommend checking [akaipro.com](http://akaipro.com) for any available updates to the MPC X software/firmware and/or drivers.

**To use MPC X in Controller Mode**, continue to Step [2. Installation](#).

## 2. Installation

**To use MPC X in Controller Mode** (to control the MPC software), **follow these steps to download and install the required drivers & software:**

1. Go to [akaipro.com](http://akaipro.com) and register your product. If you don't have an Akai Professional account yet, you will be prompted to create one.
2. In your Akai Professional account, download the MPC software package.
3. Open the file and double-click the installer application.
4. Follow the on-screen instructions to complete the installation.

**Note:** By default, the MPC software will be installed in [your hard drive]\Program Files\Akai Pro\MPC (Windows®) or Applications (Mac® OS X®). You can also create a shortcut on your Desktop.

## 3. Getting Started

1. Power on MPC X.
2. On your computer, open the **MPC** software.
3. Follow the on-screen instructions to authorize your version of MPC.
4. You will need an iLok account and iLok License Manager to complete this. You can create an account and download the license manager at [ilok.com](http://ilok.com).

Make a note of the PACE code in your account, and enter it when asked for it during the authorization/unlock process.

5. On MPC X, check the upper-right corner of the touchscreen:
  - If there is a **monitor/cable icon**, then MPC X is already in Controller Mode. Continue to **Step 6**.
  - If there a **chip icon**, then MPC X is in Standalone Mode. Follow these steps:
    - i. Press **Menu** to enter the Menu.
    - ii. Tap the **MPC chip icon** in the upper-right corner.
    - iii. In the **Enter Controller Mode** window that appears, tap **Controller Mode**. **Looking for computer** may appear briefly in the touchscreen before MPC X recognizes the USB connection as a controller.
6. In the MPC software, click the **Edit** menu, and select **Preferences**. Click the **Audio** tab and select the sound card you want to use. Click **OK** when you are done.



### Important:

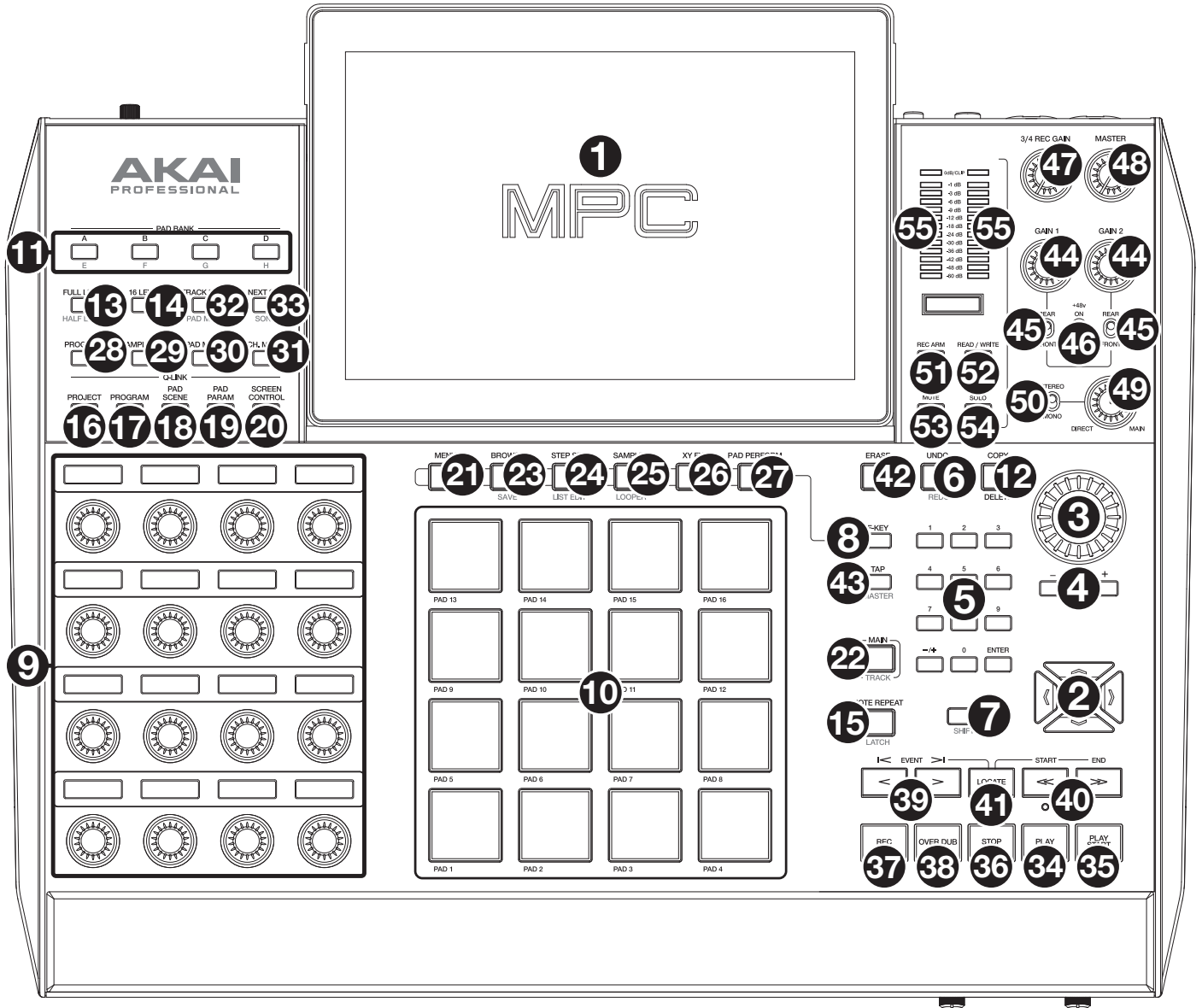
We highly recommend using your MPC X's sound card (**Akai Pro MPC X ASIO**). If you need to use the internal sound card on a Windows computer, we recommend downloading the latest ASIO4ALL driver at [asio4all.com](http://asio4all.com).

To view the MPC software user guide, click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.

# Features

This chapter explains the features and functions of your MPC X.

## Top Panel



## Navigation & Data Entry Controls

- 1. Touchscreen:** This full-color multi-touch display shows information relevant to MPC X's current operation. Touch the display (and use the hardware controls) to control the MPC interface. See the later [Touchscreen](#) section to learn how to use some basic functions.  
**Tip:** If you adjust the angle of the display, we recommend using the stand on its back panel to secure it in place.
- 2. Cursors:** Press these buttons to navigate through the fields of menus and options shown in the display. Press and hold **Shift** and press these buttons to zoom in or out of the Grid View or Audio Edit Mode. Press and hold **Shift** and press the **up** and **down cursors** simultaneously or the **left** and **right cursors** simultaneously to return to the default zoom setting.
- 3. Data Dial:** Use this dial to scroll through the available menu options or adjust the parameter values of the selected field in the touchscreen.
- 4. +/-:** Press these buttons to increase or decrease the value of the selected field in the display.

5. **Numeric Keypad:** If the selected field in the display is a number, press these numbered buttons as you would on a standard numeric keypad to enter a value. Press the keypad's **Enter** to enter it. (A numeric keypad with additional operations will appear on the touchscreen, as well.)
6. **Undo/Redo:** Press this button to undo your last action.  
Press and hold **Shift** and press this button to redo the last action you undid.
7. **Shift:** Press and hold this button to access some buttons' secondary functions (indicated by **red** writing).  
Double-press this button to see which buttons have secondary functions—the buttons will flash for a few seconds.
8. **F-Key:** Press this button to activate or deactivate the F-Key feature. When active, the six buttons under the display correspond to the options shown at the bottom edge of the touchscreen. The F-Key button and those six buttons will be lit **red** when active. When inactive, the six buttons under the display will access their normal modes instead (**Menu**, **Browser**, **Step Seq**, **Sampler**, **XYFX**, and **Looper**).

## Pad & Q-Link Controls

9. **Q-Link Knobs:** Turn these touch-sensitive knobs to adjust various parameters and settings. The display strip above each knob indicates the parameter it is controlling. If the display strip shows a meter to indicate its value, you can touch or turn its Q-Link knob to temporarily show its precise numerical value.
10. **Pads:** Press these pads to trigger drum hits or other samples in your software. The pads are velocity-sensitive and pressure-sensitive, which makes them very responsive and intuitive to play. The pads will light up different colors, depending on how hard you play them (ranging from yellow at a low velocity to red at the highest velocity). You can also customize their colors.
11. **Pad Bank:** Press these buttons to access Pad Banks A–D.  
Press and hold **Shift** while pressing these buttons to access Pad Banks E–H. Alternatively, double-press one of these buttons.
12. **Copy/Delete:** Press this button to copy one pad to another. When the **From Pad** field is selected, press the “source” pad (the pad you want to copy). When the **To Pad** graphic (of all pads) is selected, press the “destination” pad. You can select multiple destination pads, and you can select pads in different pad banks. Tap **Do It** to continue or **Close** to return to the previous screen.

**Tip: To quickly copy a pad**, press and hold **Copy**, press the source pad, press the destination pad, and then release **Copy**.

Press and hold **Shift** and press this button to delete a pad's sample assignment. When the **Delete Pad** window is shown, press any pad/pads whose sample assignments you want to clear. Tap **Delete** to continue or **Cancel** to return to the previous screen.

13. **Full Level/Half Level:** Press this button to activate or deactivate the Full Level feature. When activated, the pads will always trigger their samples at the maximum velocity (**127**), regardless of how much force you use.  
Press and hold **Shift** and then press this button to activate or deactivate the Half Level feature. When activated, the pads will always trigger their samples at half-velocity (**64**).
14. **16 Level:** Press this button to activate/deactivate 16 Level. When activated, the last pad that was hit will be temporarily copied to all 16 pads. The pads will now output the same note number as the initial pad, but a selectable parameter will be fixed at values that increase as the pad numbers increase (e.g., Pad 1 is the minimum, Pad 16 is the maximum), regardless of how hard you press them. In the screen that appears, use the **Type** selector to choose the parameter: **Velocity**, **Tune**, **Filter**, **Layer**, **Attack**, or **Decay**. See [Operation > General Features > 16 Level](#) to learn more.
15. **Note Repeat/Latch:** Press and hold this button, and then press a pad to trigger that pad's sample repeatedly. The rate is based on the current tempo and Time Correct settings.  
Press and hold **Shift** and then press this button to “latch” the Note Repeat feature. When latched, you do not have to hold the Note Repeat button for it to be activated. Press **Note Repeat** once more to unlatch it.

16. **Project:** Press this button to use the Q-Link knobs to adjust parameters related to the current project. Press and hold **Shift** and then press this button to enter the Project Q-Link Edit Mode directly. See [Operation > Modes > Q-Link Edit Mode](#) to learn about this.
17. **Program:** Press this button to use the Q-Link knobs to adjust parameters of the currently selected program or audio track. Press and hold **Shift** and then press this button to enter the Program Q-Link Edit Mode directly. See [Operation > Modes > Q-Link Edit Mode](#) to learn about this.
18. **Pad Scene:** Press this button to use the Q-Link knobs to adjust parameters that you have assigned for the currently selected pad. Press and hold **Shift** and then press this button to enter the Pad Scene Q-Link Edit Mode directly. See [Operation > Modes > Q-Link Edit Mode](#) to learn about this.
19. **Pad Param:** Press this button to use the Q-Link knobs to adjust one parameter across all 16 pads. Each Q-Link knob corresponds to the pad with the same number and position in the 4-by-4 layout. Press and hold **Shift** and then press this button to enter the Pad Param Q-Link Edit Mode directly. See [Operation > Modes > Q-Link Edit Mode](#) to learn about this.
20. **Screen Control/Edit:** Press this button to use the Q-Link knobs to adjust parameters in the currently selected mode as shown in the display. See [Operation > Modes > Q-Link Edit Mode](#) to learn about this.  
  
Press and hold **Shift** and then press this button to enter Q-Link Edit Mode where you can assign other parameters to the Q-Link knobs.

## Mode & View Controls

21. **Menu:** Press this button to open the Menu. You can tap an option in the Menu to enter that mode, view, etc.
22. **Main/Track:** Press this button to enter Main Mode.  
  
Press and hold **Shift** and then press this button to enter the Track View.
23. **Browse/Save:** Press this button to view the Browser. The Browser lets you navigate your computer's internal and external hard disks to load samples, sequences, songs, etc. Using filter buttons and user-definable folders, you can easily adapt it to your workflow. You can also preview samples before loading them.  
  
Press and hold **Shift** and press this button to save the current project (including its samples, programs, sequences, and songs).
24. **Step Seq/List Edit:** Press this button to view the Step Sequencer where you can create or edit sequences by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.  
  
Press and hold **Shift** and press this button to view your sequences using the List Edit View instead of Grid View.
25. **Sampler/Looper:** Press this button to view the Sampler where you can record audio samples to use in your projects.  
  
Press and hold **Shift** and press this button to view the Looper where you can record and overdub audio in real time—a great tool for live performance as well as spontaneous moments in the studio. You can export the loop as a sample to use in your project.
26. **XYFX:** Press this button to view XYFX Mode, which turns the touchscreen into an XY pad where each axis represents the range of an effect parameter. As you move touch or move your finger on the touchscreen, the current position will determine the current value of the two parameters. You can use this mode to create interesting effect automation on your tracks.
27. **Pad Perform:** Press this button to view Pad Perform Mode where you can assign musical scales/modes, chords, or progressions to the pads for creative performance options.
28. **Prog Edit:** Press this button to view Program Edit Mode, which contains all parameters for editing your programs.
29. **Sample Edit:** Press this button to view Sample Edit Mode where you can edit your samples using various functions and processes.
30. **Pad Mixer:** Press this button to view the Pad Mixer where you can set a program's levels, stereo panning, routing, and effects.
31. **Ch. Mixer:** Press this button to view the Channel Mixer where you can set levels, stereo panning, and other settings for your tracks, programs, returns, submixes (in Controller Mode), and masters.



32. **Track Mute/Pad Mute:** Press this button to view Track Mute Mode where you can easily mute tracks within a sequence or set mute groups for each track.  
Press and hold **Shift** and press this button to view Pad Mute Mode where you can easily mute pads within a program or set mute groups for each pad within a program.
33. **Next Seq/Song:** Press this button to view Next Sequence Mode where you can trigger different sequences simply by playing the pads. This is useful for live performances, letting you change a song's structure in real time.  
Press and hold **Shift** and press this button to view Song Mode where you can arrange sequences in a specific order and/or repetition to create songs. You can edit the structure of a song during playback for easy, on-the-fly composing.

## Transport & Recording Controls

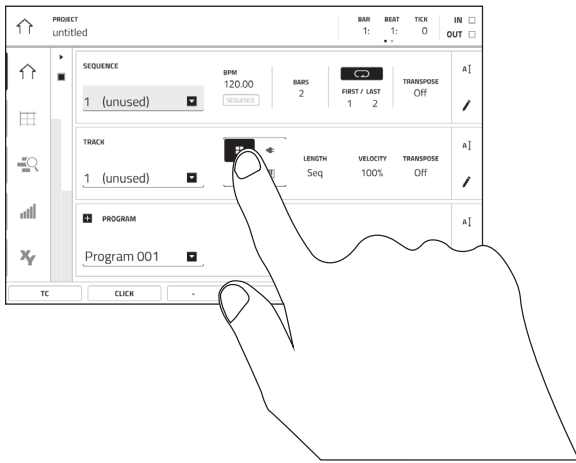
34. **Play:** Press this button to play the sequence from the audio pointer's current position.
35. **Play Start:** Press this button to play the sequence from its start point.
36. **Stop:** Press this button to stop playback. You can double-press this button to silence audio that is still sounding once a note stops playing. Quickly pressing this button three times will act as a "MIDI panic" and shut off all voices and stop all audio processing.
37. **Rec:** Press this button to record-arm the sequence. Press **Play** or **Play Start** to start recording. Recording in this way (as opposed to using **Overdub**) erases the events of the current sequence. After the sequence plays through once while recording, Overdub will be enabled.
38. **Overdub:** Press this button to enable Overdub. When enabled, you can record events in a Sequence without overwriting any previously recorded events. You can enable Overdub before or during recording.
39. **</> (Event |</>):** Use these buttons to move the audio pointer left/right, one step at a time.  
Press and hold **Locate** and press one of these buttons to move the audio pointer to the previous/next event in the sequence grid.
40. **<</>> (Start/End):** Use these buttons to move the audio pointer left/right, one bar at a time.  
Press and hold **Locate** and press one of these buttons to move the audio pointer to the start or end of the sequence grid.
41. **Locate:** Press and hold this button to activate the secondary functions of the **</>** and **<</>>** buttons (i.e., **Event |</>|** and **Start/End**, respectively).
42. **Erase:** As a sequence is playing, press and hold this button and then press a pad to delete the note event for that pad at the current playback position. This is a quick way to delete note events from your sequence without having to stop playback. See [Operation > General Features > Erase](#) to learn more.
43. **Tap/Master:** Press this button in time with the desired tempo to enter a new tempo (in BPM). You can set how many taps are required in the Preferences (see [Operation > General Features > Menu > Preferences](#) to learn how to do this).  
Press and hold **Shift** and press this button to set whether the currently selected sequence follows its own tempo (the button will be lit **red**) or a master tempo (the button will be lit **amber**).

## I/O & Level Controls

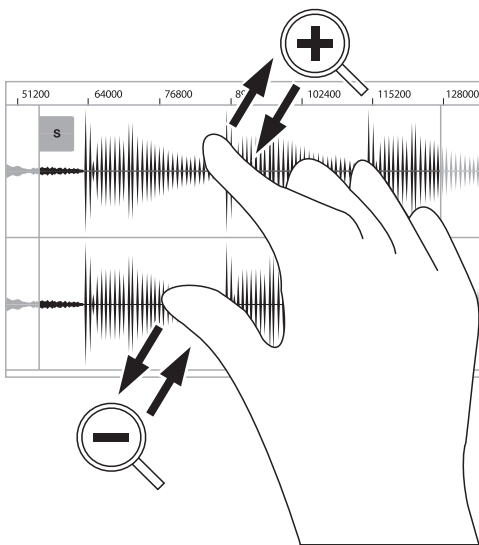
44. **Gain 1/2:** Use these knobs to adjust the gain of the incoming signal from **Input 1/2** on the rear panel or **Inst 1/2** on the front panel. Use the **Rear/Front** switches below the knobs to determine the input. Use the **level meter** to check the recording level. Be careful when setting this knob at higher levels, which can cause the signal to distort.
45. **Rear/Front:** Use each switch to set whether the **Gain 1/2** knob above it will control the gain of the input signal on the rear panel (**Input 1/2**) or on the front panel (**Inst 1/2**).
46. **Phantom Power (+48V):** This switch activates and deactivates phantom power for **Input 1/2**. When activated, +48V of phantom power will be supplied to both inputs. Note that most dynamic microphones do **not** require phantom power, while most condenser microphones **do**. Refer to your microphone's documentation to check if it needs phantom power.
47. **3/4 Rec Gain:** Use this knob to adjust the gain of the incoming signal from **Input 3/4** on the rear panel. Use the **level meter** to check the recording level. Be careful when setting this knob at higher levels, which can cause the signal to distort.
48. **Master:** Turn this knob to adjust the volume level of the **Main L/R outputs**.
49. **Direct/Main:** Turn this knob to adjust the balance between the input and output signals in the headphones.
  - Direct** corresponds to the input signal—all devices connected to the inputs on the front and rear panels. While recording, you can turn this knob all the way to **Direct** for zero-latency direct monitoring.
  - Main** corresponds to the output signal—the signal sent from the Main L/R outputs on the rear panel. When you are **not** recording, we recommend turning this knob all the way to the **Main** position to hear the full-volume playback signal.
50. **Stereo/Mono:** Use this switch to set whether the signal in the headphones is binaural (**Stereo**) or monaural (**Mono**). When set to **Stereo**, the headphone signal will be split so that the input signal (**Direct**) is heard in the left ear while the output signal (**Main**) is heard in the right ear. When set to **Mono**, the input and output signals are blended into a single, summed mix, which is heard in both ears.
51. **Rec Arm:** Press this button to arm or disarm recording for the currently selected audio track, shown in the display strip below the **level meters** (see [Operation > General Features > Menu > Preferences](#) to learn how to set what is shown in the level meters).
52. **Read/Write:** Press this button to set the automation state for the program on the current track or for the current audio track: **Off**, **Read** (green R), or **Write** (red W). The display strip below the **level meters** must show a program or audio track (see [Operation > General Features > Menu > Preferences](#) to learn how to set what is shown in the level meters).
53. **Mute:** Press this button to mute the program, audio track, or master output shown in the display strip below the **level meters** (see [Operation > General Features > Menu > Preferences](#) to learn how to set what is shown in the level meters).
54. **Solo:** Press this button to solo the currently selected program or audio track shown in the display strip below the **level meters** (see [Operation > General Features > Menu > Preferences](#) to learn how to set what is shown in the level meters).
55. **Level Meters:** These meters indicate the level of the audio signal shown in the display strip below them. See [Operation > General Features > Menu > Preferences](#) to learn how to set what is shown in the level meters.

**Touchscreen**

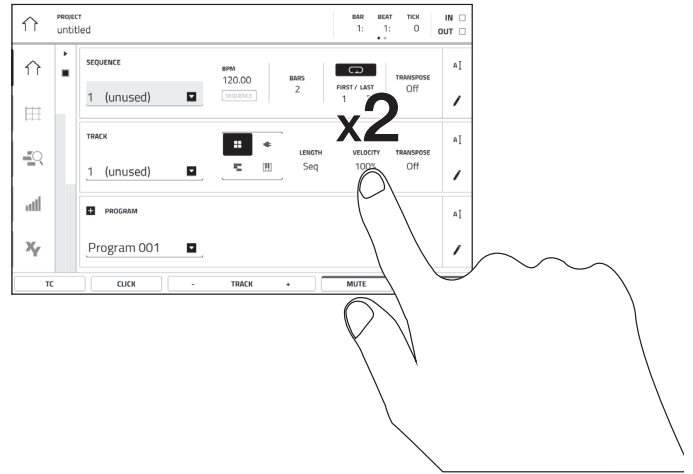
Here is some general information about how to use the MPC X touchscreen:



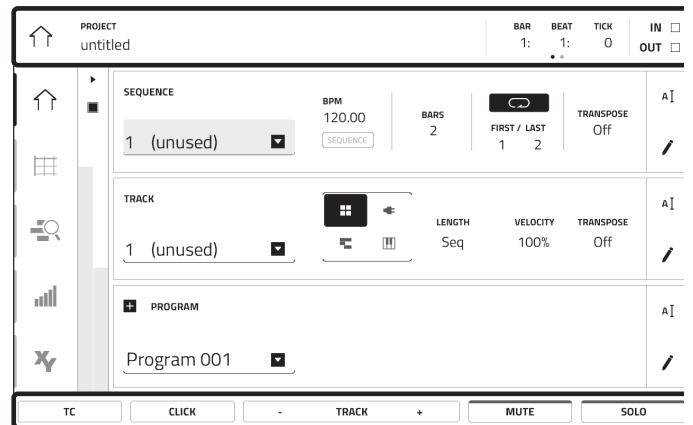
Tap a button or option to select it. Use the **data dial** or **-/+** buttons to change its setting or value



Spread two fingers to zoom in (into a section of a waveform, for example). Pinch two fingers to zoom out.



Double-tap a button to access advanced editing options. In some cases, this will show a numeric keypad that you can use to enter a value (an alternative to the **data dial** or **-/+** buttons). Tap the upper-left part of the touchscreen to return to the previous view.

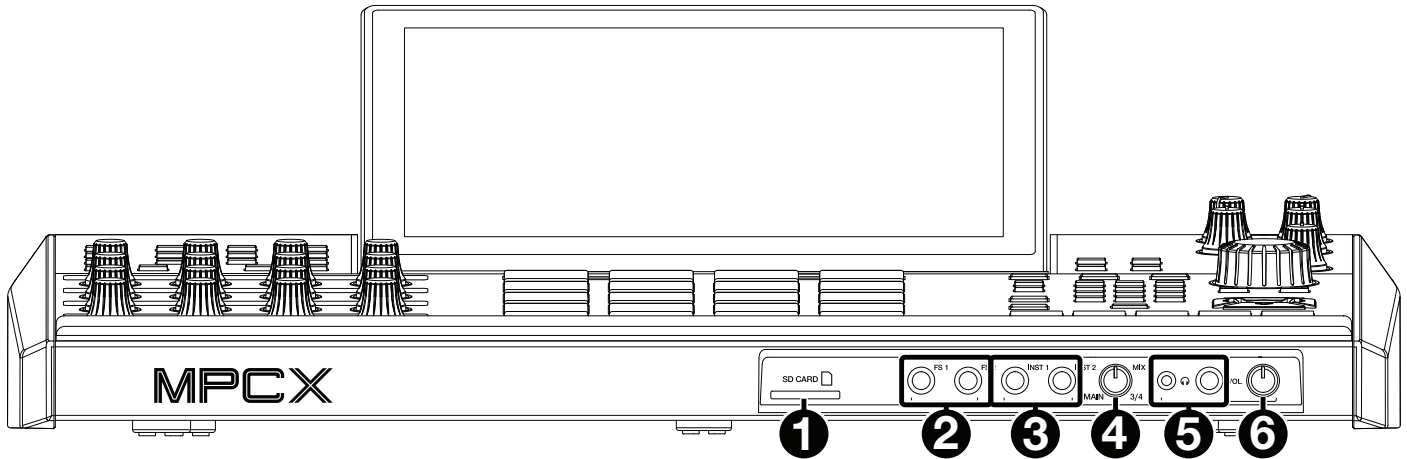


The top of the touchscreen shows the toolbar, which contains information about the current view (often the name of the current track, sequence, audio pointer position, etc.). Tap an item to select it.

The bottom of the touchscreen shows various buttons that you can use in the current view. Tap a button to press it.

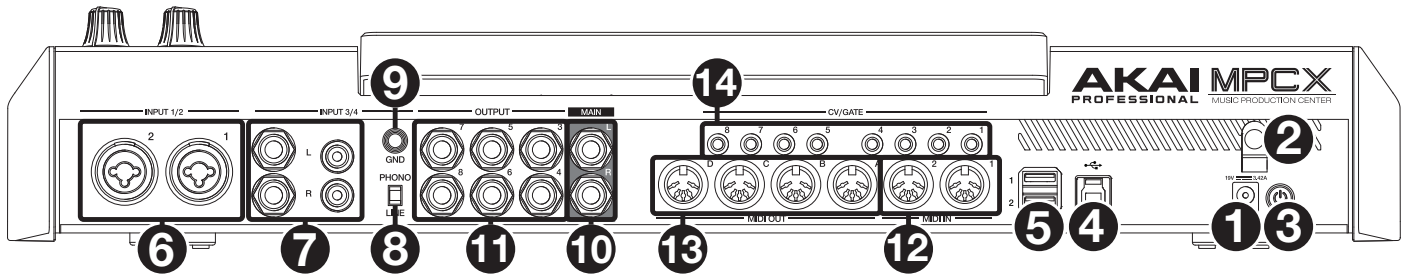
**To return to a previous view**, either tap outside of the window currently in the touchscreen or tap the left arrow (←) in the upper-left part of the touchscreen.

## Front Panel



1. **SD Card Slot:** Insert a standard SD/SDHC card into this slot to access its files directly using MPC X.
2. **Footswitch Inputs (FS 1/2)** (1/4" / 6.35 mm): Connect optional 1/4" (6.35 mm) TS footswitches to these inputs.
3. **Instrument Inputs (Inst 1/2)** (1/4" / 6.35 mm): Use standard 1/4" (6.35 mm) TS cables to connect these inputs to audio sources (guitars, bass, etc.). To use each of these inputs, set the corresponding **Rear/Front** switch (below the **Gain 1/2** knob on the top panel) to **Front**.
4. **Mix Knob:** Turn this knob to adjust the balance between the **Main** and **3/4** signals in your headphones. **Main** is the signal sent from the **Main L/R outputs**. **3/4** is the signal sent from the **Outputs 3/4**.
5. **Headphone Outputs** (1/8" or 1/4" / 3.5 mm or 6.35 mm): Connect your headphones (not included) to either or both of these standard stereo outputs. Use the **Mix Knob** to determine what signal is heard in the headphones.
6. **Headphone Volume:** Turn this knob to adjust the volume of the headphone outputs.

## Rear Panel



1. **Power Input:** Use the included power adapter to connect MPC X to a power outlet. This must be connected to a power outlet in order for MPC X to power on.
2. **Power Adapter Restraint:** Secure the power adapter cable to this restraint to prevent it from accidentally unplugging.
3. **Power Switch:** Press this button to turn MPC X's power on or off. While powered on, press and hold this button for 5 seconds to force MPC X to power off (similar to a computer).
4. **USB-B Port:** Use the included USB cable to connect this USB 3.0 port to an available USB 3.0 port on your computer. This connection allows MPC X to send/receive MIDI and audio data to/from the MPC software on your computer. It also allows any connected USB drives, SD cards, and drives connected to the internal SATA port to mount on your computer if MPC X is in Controller Mode (i.e., your computer can access these storage devices that are connected to your MPC X).
5. **USB-A Ports:** Connect USB flash drives to these USB ports to access their files directly using MPC X. MPC X supports read and write capability for exFAT, FAT32, NTFS, and EXT4 file systems as well as read-only capability for HFS+ file systems. (We recommend using an exFAT file system as it is the most robust one supported by both Windows and Mac OS X.)
6. **Inputs 1/2 (XLR or 1/4" / 6.35 mm):** Use standard XLR or 1/4" (6.35 mm) TRS cables to connect these inputs to audio sources (microphone, mixer, synthesizer, etc.). To use each of these inputs, set the corresponding **Rear/Front** switch (below the **Gain 1/2** knob on the top panel) to **Rear**. Turn the **Gain 1/2** knobs to set the input level of each one.
7. **Inputs 3/4 (1/4" / 6.35 mm or RCA):** Use standard 1/4" (6.35 mm) TRS cables or stereo RCA cables to connect these inputs to audio sources (mixer, turntable, synthesizer, etc.). To use the 1/4" (6.35 mm) inputs, set the **Phono/Line** switch to **Line**. To use the RCA inputs, set the **Phono/Line** switch to **Phono**. Turn the **3/4 Rec Gain** knob to set their input levels.
8. **Phono/Line Switch:** Set this switch to the appropriate position, depending on which **Input 3/4** connectors you want to use. If you are using the 1/4" (6.35 mm) inputs, set this switch to **Line**. If you are using the RCA inputs, set this switch to **Phono** to provide the additional amplification needed for phono-level signals.
9. **Grounding Terminal:** If you are sending a phono-level turntable signal to the **Input 3/4** RCA connectors and are hearing a low hum or buzz, it could mean that the turntable is not grounded. If the turntable has a grounding wire, connect it to this terminal.
 

**Note:** Some turntables have a grounding wire built into the RCA connection and, therefore, nothing needs to be connected to the grounding terminal.
10. **Main L/R Outputs (1/4" / 6.35 mm):** Use standard 1/4" (6.35 mm) TRS cables to connect these outputs to your speaker system. The signal sent out of these outputs is the master mix. Turn the **Master** knob to set their volume. To route a program to these outputs, set its routing to **Out 1,2** in the **Channel Mixer** when the **Mixer** field is set to **Programs**.
11. **Outputs 3/4, 5/6, 7/8 (1/4" / 6.35 mm):** Use standard 1/4" (6.35 mm) TRS cables to connect these outputs to an external mixer. The signal sent from these outputs is full-volume (**0 dB**). To route a program to these outputs, set its routing to **Out 3,4**, **Out 5,6**, or **Out 7,8** in the **Channel Mixer** when the **Mixer** field is set to **Programs**.
12. **MIDI In:** Use standard 5-pin MIDI cables to connect these inputs to the MIDI outputs of optional external MIDI devices.
13. **MIDI Out:** Use standard 5-pin MIDI cables to connect these outputs to the MIDI inputs of optional external MIDI devices.
14. **CV/Gate Out:** Use standard 1/8" (3.5 mm) TS cables to connect these outputs to optional external sequencers. MPC X will send control voltage (CV) and/or Gate data over this connection.

## Basic Concepts

This chapter should help explain some fundamental aspects of MPC X.

The MPC workflow is quite different from traditional digital audio workstations (DAWs). In most typical DAWs, each track uses an instance of each instrument, and all tracks are always playing even if they don't contain any audio or MIDI information. Furthermore, your entire project needs to be arranged just as the resulting song would be.

This isn't the case with MPC X, which offers much more flexibility within your project. It's important to understand some basic terms, though:

A **sequence** is a “building block” of a song. It contains multiple tracks that play at the same time like a normal DAW. In a project, you might create one sequence for your verse and another sequence for your chorus, alternating and/or repeating each one in a specific order to create the song. (A project can contain 128 sequences.)

A **track** is a layer in a sequence. There are two types of tracks:

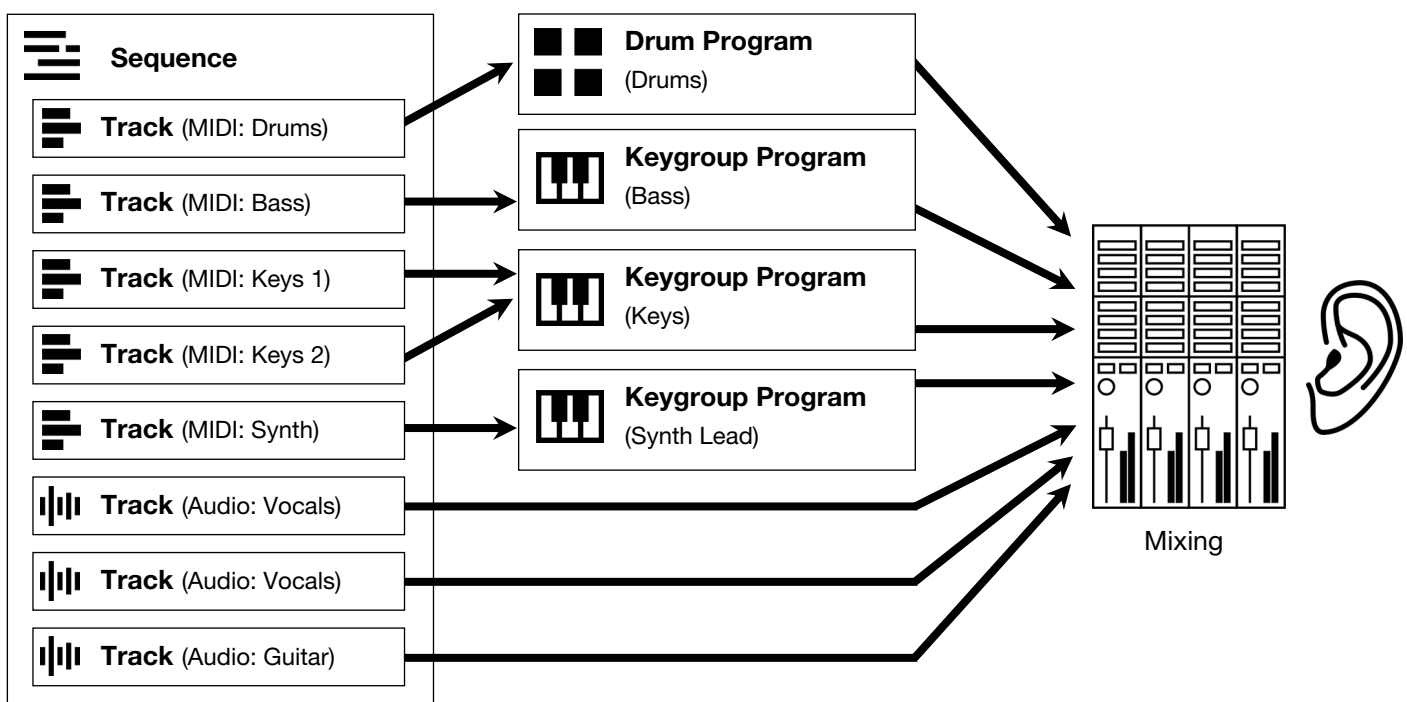
**MIDI tracks** consist of MIDI data only, no audio data. These tracks produce sound by using **programs**, described below. Unlike a normal DAW, each MIDI track exists only in its sequence. The advantage of this is not having to manage empty or unwanted tracks across all of your sequences—each sequence contains only the tracks you want to use in it. If you want to use the same track across multiple sequences, you can copy the track from one sequence into another. (A sequence on MPC X can contain 128 MIDI tracks.)

**Audio tracks** consist of a recorded audio signal, like a traditional DAW. These tracks do **not** use programs because the audio is already contained in the track. Also, unlike MIDI tracks, audio tracks are present in every sequence in the project, even if the tracks themselves are empty. (A sequence on MPC X can contain 8 audio tracks.)

A **program** is a preset through which MIDI tracks are routed. Programs may contain audio samples that are triggered when tracks play through them, producing the sound you want on that track. Programs are independent of tracks and sequences, so you can set multiple tracks to use the same program (unlike normal DAWs where each track requires its own set of samples). Furthermore, you can use the same program/programs across multiple sequences. (A project can contain 128 programs.)

Each program can be played using the 16 **pads** (across eight pad banks, which gives you access to 128 pads in each program). Each pad plays a MIDI note when you press it, but that MIDI note will trigger something different for each program. For instance, in drum programs, the pads are assigned to samples—one pad could trigger a kick drum sound and another could trigger a snare drum sound—whereas in keygroup programs, each pad triggers a MIDI note that plays the corresponding pitch of the assigned to its keygroup.

Here's a diagram to illustrate an example of how these pieces could work together:



Please take a look at the following [Tutorial](#) chapter, as well. It will walk you through the creation of a short song to show you some of the MPC software's most important features.

## Tutorial

This chapter should help you to familiarize yourself with some basic features in MPC X. To get the most out of this chapter, we recommend reproducing each of the described steps.

On the following pages we will create a short song to show you some of MPC X's most important features.

## Starting Up

Make sure you have completed all of the steps described in [Introduction > Setup](#). This includes:

- Installing the most current drivers and software.
- Connecting your MPC X to a power source using the included power adapter and powering it on.
- Opening and authorizing your MPC software.

## Creating a Drum Kit

Let's start by making a simple drum kit.

Press **Browse** to show the Browser. Then, use the touchscreen to navigate to where your drum sounds are located:

**To browse your files by location**, tap **Places** on the left side of the touchscreen. **Internal** is the MPC X's internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder in the internal drive. If you have storage devices connected to MPC X's USB ports or SD card slot, they will appear in this column, as well.

**Important:** MPC X supports read and write capability for **exFAT**, **FAT32**, **NTFS**, and **EXT4** file systems as well as read-only capability for **HFS+** file systems. (We recommend using an exFAT file system as it is the most robust one supported by both Windows and Mac OS X.)

**To browse your files by type**, tap **Content** and then tap the type of file: **Drums**, **Instruments**, **Clips**, **Samples**, **Demos**, or **My Files**.

**To move up one folder level**, tap the **folder/L** icon in the **To move through a list**, swipe up or down, turn the **data dial** or use the **-/+** buttons.

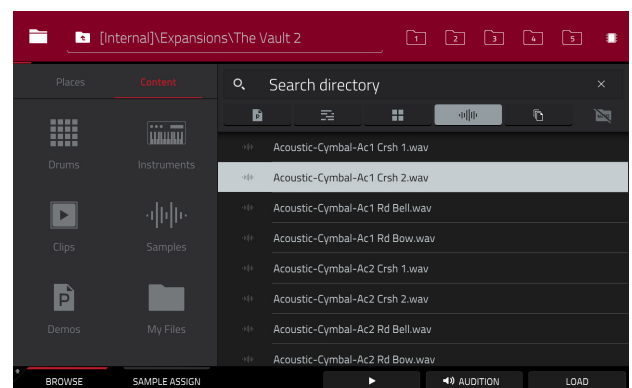
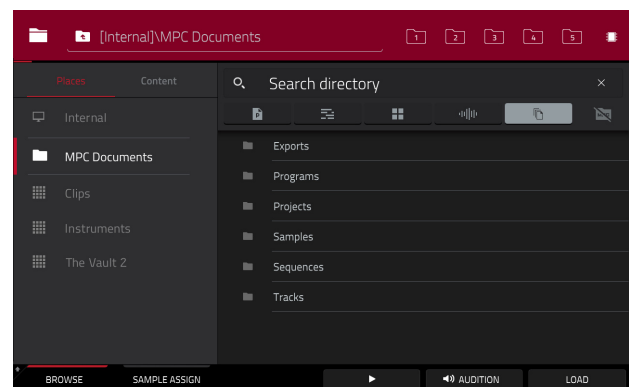
**To select a file or folder**, tap it once.

**To enter a folder**, double-tap it or tap **Open** in the lower-right corner. Alternatively, press the **center cursor** or **Enter** to enter a selected folder.

**To load a selected file**, double-tap it, tap **Load**, or press the **center cursor** or **Enter**. If the file is a sample, it will be loaded to the project's sample pool. If the file is a project, it will be loaded in its entirety (you will be asked if you want to close your current project).

**To load all files in a selected folder**, press and hold **Shift** and then tap **Load All** in the lower-right corner.

**To delete a selected file or folder**, press and hold **Shift** and then tap **Delete File** at the bottom of the touchscreen.





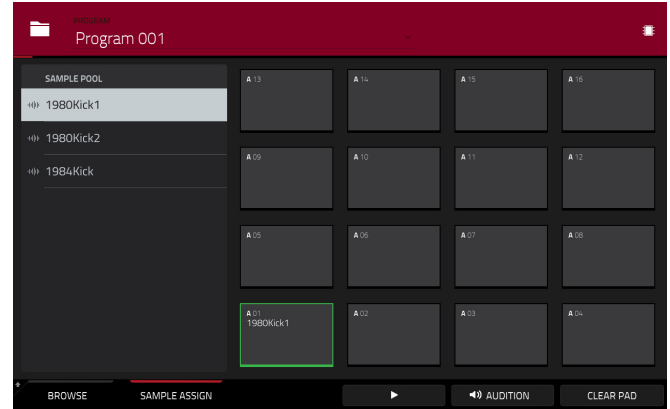
To preview a selected sound, tap and hold **Play** (▶) at the bottom of the touchscreen.

To enable or disable the audition function and set its volume level, tap **Audition** at the bottom of the touchscreen. In the screen that appears, tap **Auto** to enable or disable it, and tap and drag the **level slider** up or down to set the volume level. Tap **Audition** once more to hide the window.

To show the information for the current drive, press and hold **Shift** and then tap **Drive Info** at the bottom of the touchscreen. The drive's information will appear in a new window. Tap **OK** to return to the previous screen.

After loading samples for a drum kit into the sample pool, use the **Sample Assign** tab to assign a kick drum sound to a pad:

1. Tap **Sample Assign** at the bottom of the touchscreen. This lets you view the pads and project's sample pool.
2. Press **Pad 1** or tap **Pad 1** in the touchscreen. The pad will be lit green.
3. Swipe the **Sample Pool** list up or down or use the **data dial** or **-/+** buttons to move through it.
4. To load a sample to the selected pad (**Pad 1**, in this case) tap it in the **Sample Pool** list or press the **center cursor** or **Enter**. Now, you can press **Pad 1** to play the kick drum sample.

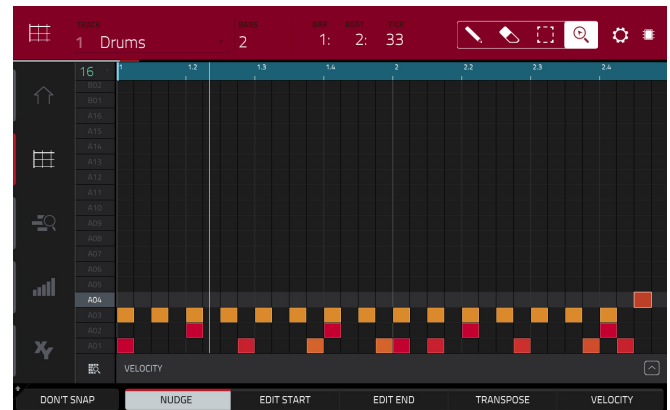


To create a simple drum kit, repeat the above steps for other pads. We recommend loading a snare drum, a closed hi-hat, and an open hi-hat.

## Creating a Drum Sequence

Now that your drum kit is set up, let's record a drum sequence.

1. Press **Menu** to enter the Menu, and then tap **Grid View**.
2. Press **Tap Tempo** repeatedly at the speed you want to record your sequence. MPC X will detect the rate and adjust itself automatically.
3. Press the **Rec** button to activate Record Mode.
4. Press the **Play** button to start the actual recording. The pre-count will count one measure before MPC X starts to record. We recommend recording only one sound (pad) at a time, especially if you are not familiar with playing drums on the pads.
5. Play a simple kick drum pattern. The note events you just recorded will automatically be placed in the grid (in this case, on 16th notes). The initial measure length is two bars. After the two bars, the recording will enter Overdub Mode automatically; the sequence plays again from the beginning and keeps looping, allowing you to record further notes. Don't stop the recording!
6. Play the snare drum part, then a hi-hat part.
7. When you're done recording, press the **Stop** button.



If you start recording again on this sequence, keep in mind that the pads you play in your new recording will automatically replace existing notes played with the same pads. To prevent this, you can start again from Step 1 but press the **Overdub** button instead of the **Rec** button. Overdub lets you record additional note events over the existing Sequence.

The **Undo** button functions differently while in Record Mode. Normally, pressing **Undo** will undo just the last event. When there is an event to undo, the **Undo** button will be lit solid. While recording, the **Undo** button will flash. In this case, pressing **Undo** will erase **all** events from that recording (i.e., since **Play** or **Play Start** was pressed).



## Saving & Renaming

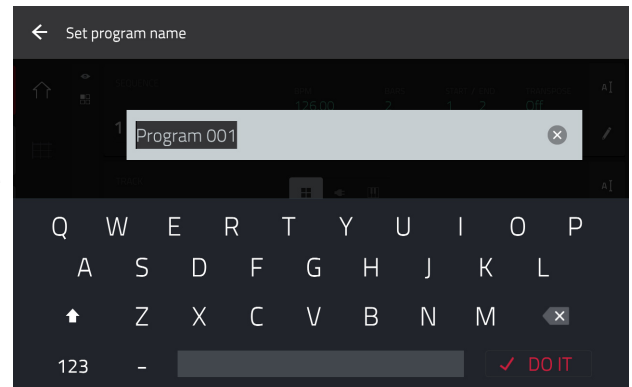
We recommend doing some renaming of your programs and samples before going further.

The collection of drum samples you loaded earlier (and their respective pad assignments) are arranged into a program. When you load this program in the future, you will be able to use all of the samples that belong to it.

Let's rename the existing program as we'll want to create more programs later on.

### To rename a program:

1. Press **Main** to enter Main Mode.
2. In the **Program** section in the lower part of the touchscreen, tap the **cursor icon** on the right edge.
3. Use the virtual keyboard that appears to enter a new name (e.g., **Drums**), and then tap **Do It**.



### To rename your samples:

1. Press **Sample Edit** to enter Sample Edit Mode.
2. The **Sample** field at the top of the touchscreen will show the name of a sample. Select a sample in one of the following ways:
  - When the **Sample** field is selected, use the **data dial** or **-/+** buttons to change it.
  - Double-tap the **Sample** field and tap one in the list that appears.
3. Tap the **keyboard icon** next to it to rename the current sample.
4. Use the virtual keyboard that appears to enter a new name (e.g., **Kick**, **Snare**, etc.), and then tap **Do It**. Repeat Steps 2–4 to rename other samples.

Now would be a good time to save your project.

**To save your project**, press **Shift+Browse/Save** to open the **Save** window. Alternatively, press **Menu** to show the Menu, and tap the **disk icon** at the top of the touchscreen. In the Save window, do any of the following:

**To select the storage device you want to view**, tap it in the **Storage** column on the left. **Internal** is the MPC X's internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder on the internal drive. If you have storage devices connected to MPC X's USB ports or SD card slot, they will appear in this column, as well.

**To enter a folder**, double-tap it. Alternatively, turn the **data dial** or use the **-/+** buttons to move through the list, and press the **center cursor** or **Enter** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see [Operation > Modes > Browser](#) to learn how to do this).

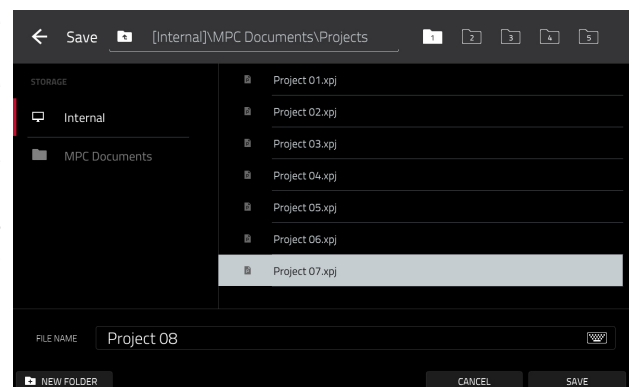
**To create a new folder**, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

**To move up one folder level**, tap the **folder/↑ icon**.

**To name the file**, tap the **File Name** field at the bottom of the touchscreen, and use the virtual keyboard that appears.

**To save the file**, tap **Save**.

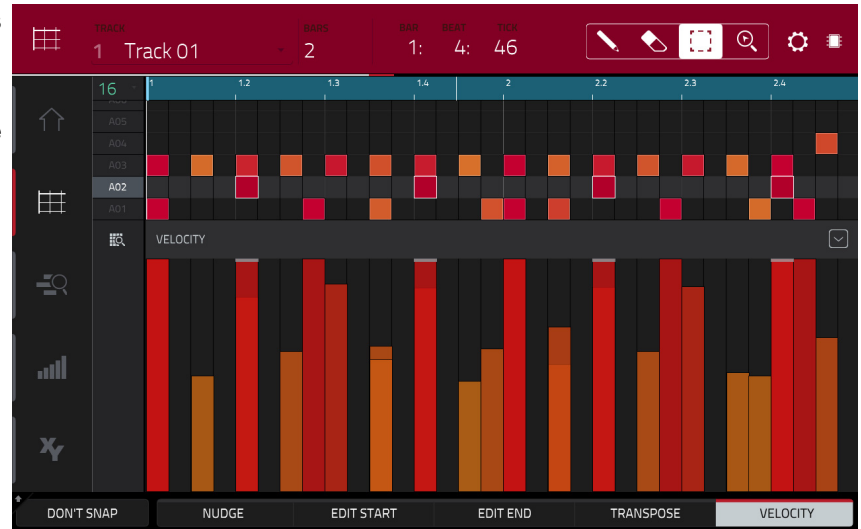
**To cancel and return to the Menu**, tap **Cancel**. Alternatively, tap the **← icon** in the upper-left corner.



## Editing Note Events

In the grid, you can see your recorded notes (or note events) as a sequence.

**To enter Grid View**, press **Main**, and then tap the **grid icon** on the left edge of the touchscreen.



In the Grid View, you can do any of the following:

**To zoom in or out**, tap the **magnifying-glass icon** in the upper-right corner. Then, in the grid, spread two fingers apart or pinch two fingers together. You can do this for each axis, horizontal or vertical.

**To automatically set the grid to view one pad bank and two bars**, tap the **grid-and-magnifying-glass icon** in the lower-left corner.

**To undo your last action**, press **Undo**.

**To redo the last action you undid**, press **Shift+Undo/Redo**.

**To enter a note**, tap the **pencil icon** in the upper-right corner. Then, in the grid, tap a square.

**To delete a note**, tap the **eraser icon** in the upper-right corner. Then, in the grid, tap a note.

**To select a single note**, tap the **select box** in the upper-right corner. Then, in the grid, tap the note.

**To select all notes for a pad**, press the desired **pad**.

**To move the selected notes**, tap **Nudge** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons to shift the notes left or right. By default, you can position notes only by quantization values defined by the **Time Correct** value (learn about this feature in [Operation > Modes > Main Mode](#)).

**To move the selected notes without restricting** (“snapping”) **them to the quantization grid**, tap and hold **Don't Snap** in the lower-left corner of the touchscreen, and then use the **data dial** or **-/+** buttons to shift the notes. In this case, each nudge is equivalent to four ticks.

**To adjust the start point or end point of the selected notes** (without changing their position), tap **Edit Start** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons.

**To transpose the selected notes up or down**, tap **Transpose** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons.

**To switch to the previous or next track**, press and hold **Shift**, and then tap **Track -** or **Track +** (respectively) at the bottom of the touchscreen.

**To mute or solo the track**, press and hold **Shift**, and then tap **Mute** or **Solo** (respectively) at the bottom of the touchscreen.

**To open the Timing Correct window**, press and hold **Shift**, and then tap **TC** at the bottom of the touchscreen. This feature is described in [Operation > Modes > Main Mode](#).

**To adjust the metronome settings**, press and hold **Shift**, and then tap **Click** at the bottom of the touchscreen. This feature is described in [Operation > Modes > Main Mode](#).

**To adjust the velocity of the selected notes**, tap **Velocity** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons. The numeric value will appear on the screen.

**To show or hide the velocity lane**, tap the **up arrow** (∧) button in the lower-right corner of the touchscreen to show the velocity lane below the grid. Each note's velocity is represented by a vertical bar. The higher and more red the bar is, the higher the velocity is.

Tap the **up arrow** (∧) button once more to show a taller version of the velocity lane after which it will turn into a **down arrow** (∨) button, which you can then tap to hide the velocity lane.

## Making Basic Sound Edits

Let's make sure the samples are properly tuned and have good levels.

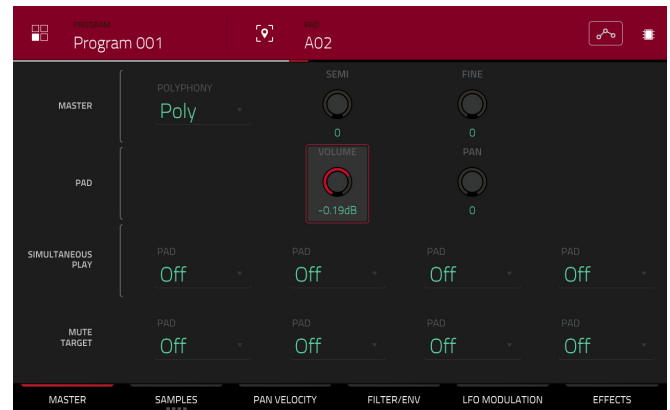
Press **Prog Edit** to enter Program Edit Mode.

Press a pad to show its parameters in the touchscreen.

**To adjust its volume**, tap and drag the **Volume** knob up or down. Alternatively, use the **data dial** or **-/+** buttons. **To make finer adjustments**, double-tap the knob and adjust the larger version that appears. Tap anywhere else to return to the previous screen.

**To adjust its stereo panning**, tap and drag the **Pan** knob up or down. Alternatively, use the **data dial** or **-/+** buttons. **To make finer adjustments**, double-tap the knob and adjust the larger version that appears. Tap anywhere else to return to the previous screen.

Adjust the level of each pad to suit your taste. We recommend spreading the panning of the bright sounds (e.g., cymbals, snare drum) a little. Additionally, you can tune the kick drum sound—tap the **Samples** tab so the first square under it is lit, and then adjust the **Semi** and **Fine** knobs next to the sample name.



The snare drum may need some reverb to give it a more spatial sound.

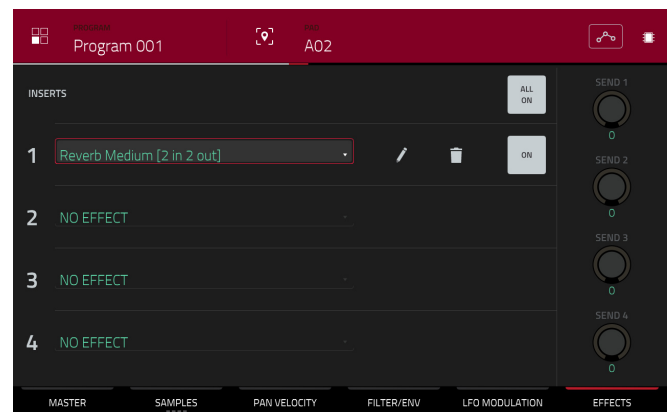
Tap **Effects** at bottom of the touchscreen to view the **Insert Effects** tab. Press the **pad** with your snare drum sound to select it.

### To add an effect:

1. Double-tap the desired slot. A list of effects will appear.
2. Swipe up or down to move through the list.
3. **To load an effect**, double-tap it. Alternatively, tap it once and then tap **Select** or push the **data dial**. Let's try **Reverb Medium**.
4. **To close the list**, tap **Close**.

**To adjust the effect's parameters**, tap the **pencil icon**.

**To empty the effect slot**, tap the **trash can icon**. Switch the effect on or off by tapping the **On/Off** button for the slot.



## Creating a Bass Track

Let's try recording a bass line. Unlike a drum kit, it's important to be able to play and record a bass sound chromatically, so this will be slightly different than setting up the drum kit.

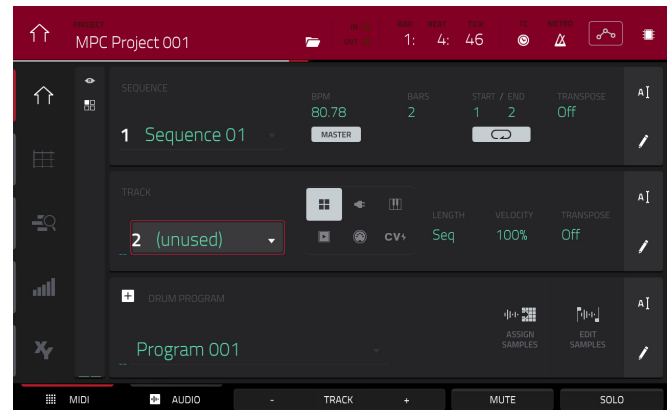
Adding a bass line over the drum part means we need to work on a new track. A **track** is simply a layer of a sequence. Each track uses a program within your project. You can work with multiple tracks in a single sequence (e.g., a drum track, a bass track, a piano track, etc.). When you play the sequence, all of them will play simultaneously.

First, let's make an empty track.

### To select a new track:

1. Press **Main** to go back to Main Mode.
2. Double-tap the **Track** field in the center-left part of the touchscreen, and then tap **Track 2 (unused)** in the list of tracks that appears.

Alternatively, simply tap the **Track +** button at the bottom of the touchscreen until **(unused)** appears in the **Track** field.



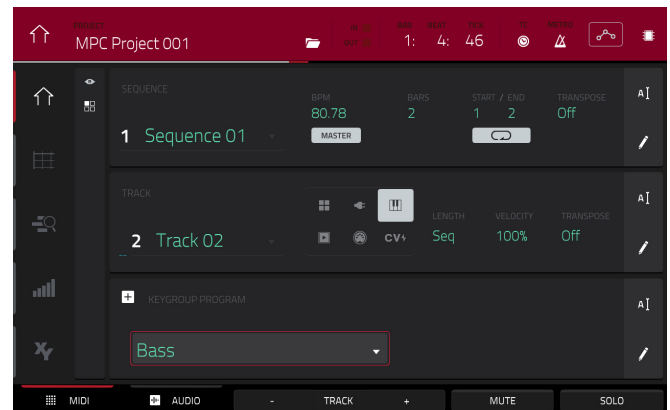
Let's create a new program for this track to use.

### To create a new program:

1. In the **Track** section in the middle of the touchscreen, tap the **piano-keys icon**. This icon indicates a keygroup program, which is necessary to play the bass sound chromatically with the pads.

A name for the new keygroup program will appear in the **Program** field in the lower part of the touchscreen.

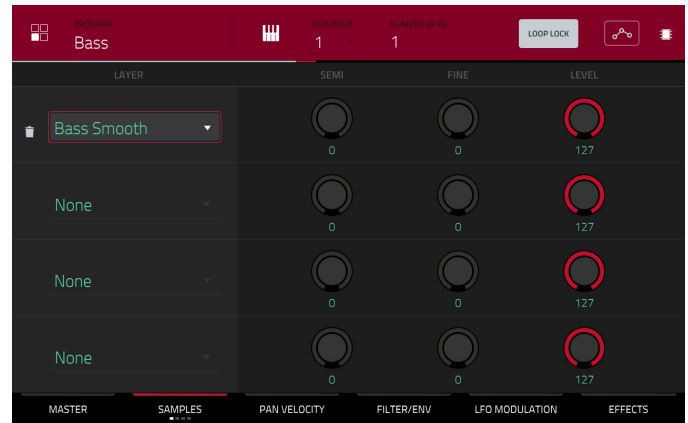
2. In the **Program** section in the lower part of the touchscreen, tap the **cursor icon** on the right edge.
3. Use the virtual keyboard that appears to enter a new name, and then tap **Do It**.



### To load and edit a bass sound:

1. Press **Browse** to show the Browser. Then, use the touchscreen to navigate to where your bass sounds are located, and load one to the project's sample pool. (You can look at [this earlier section](#) if you forgot how to do this!)
2. After loading a bass sample to the sample pool, **don't** use the Sample Assign tab like you did when creating a drum program; keygroup programs are different. Instead, press **Prog Edit** to enter Program Edit Mode.
3. In Program Edit Mode, tap the **Samples** tab at the bottom of the touchscreen to show the four layers of samples in the program.
4. Double-tap the first **Layer** field and then tap your bass sample in the list on the left. Because you're working with a keygroup program instead of a drum program, this sample is now playable across **all** pads.

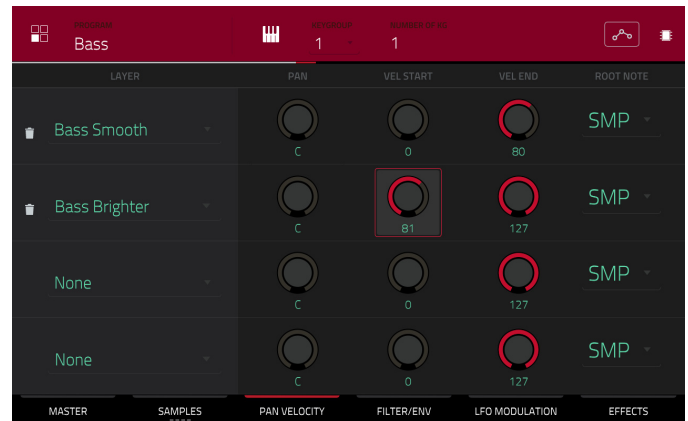
**Tip:** On your MPC X, press the **Pad Bank D** button to switch to Pad Bank D and press **Pad 13**. You should hear the bass sample played back with its original pitch. You can use the other pads to play your sample chromatically.



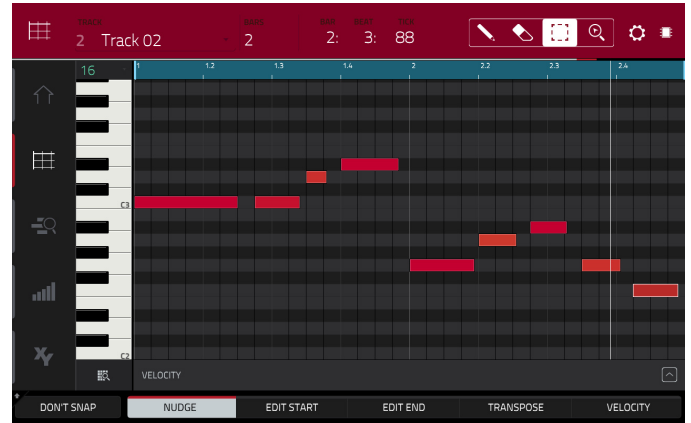
Let's add a second layer and set the layers' velocity ranges so the bass will sound different when played at a higher velocity (as a real bass would):

1. Press **Browse** to show the Browser, select a different bass sample that sounds similar but a little bit brighter, and load it to the project's sample pool.
2. Return to Program Edit Mode, and in the **Layer** tab, double-tap the second **Layer** field, and select the new bass sample. Press a **pad** to hear both samples will sound at once. Maybe this new sound is interesting as it is, but let's make some quick edits to get as close as we can to a real-life bass sound.
3. Tap the **Pan Velocity** tab to show its parameters.
4. Tap **Layer 1's Vel End** knob and turn the **data dial** to set it to **80**. Do the same to set **Layer 2's Vel Start** slider to **81**.

Now when you press a pad, the lower velocities (0–80) will trigger the Layer 1 sample only, while higher velocities (81–127) will trigger the Layer 2 sample only.

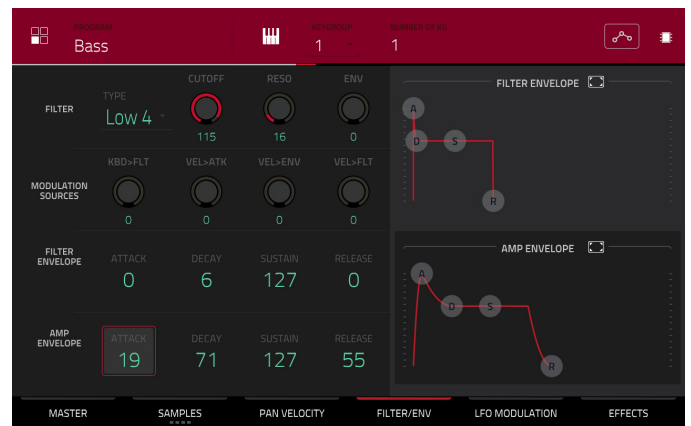


Let's record that bass line now. Prepare your recording as described earlier, and record some bass notes. You can edit your recording just like we've done earlier.



Once you've recorded it, let's tweak the sound a bit in the **Filter** section:

1. In Program Edit Mode, tap the **Filter Env** tab to show its parameters.
2. Double-tap the **Type** drop-down menu, and select a filter. Let's try working with **Lowpass 4 Pole**.
3. Tap the **Cutoff** or **Reso** (resonance) knob, and turn the **data dial** to adjust their settings until your bass sample sounds good to you.
4. In the **Amp Envelope** section, tap the **Attack** or **Release** knob, and turn the **data dial** to adjust their settings. These control the overall level characteristics of the sound.



Do you want to add an effect? Do this in the **Effects** tab:

1. Tap the **Effects** tab to show the insert effects.
2. Double-tap one of the **Inserts** slots to show a list of available effects.
3. Double-tap the effect you want to add to your bass line, or click **Close** to cancel.

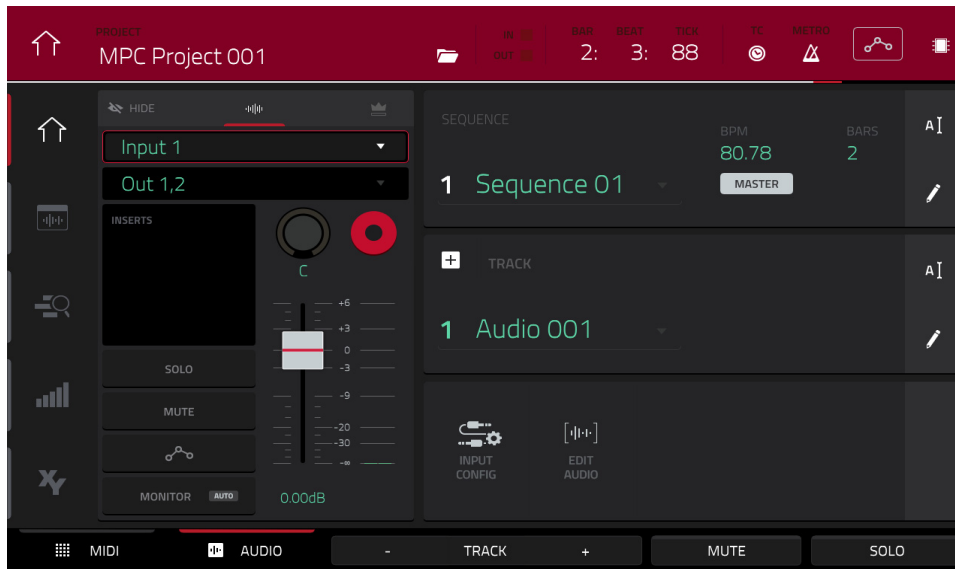
**To adjust the settings of the effect**, click the **pencil icon** next to its slot to open a window that shows its parameters.

**To activate or deactivate all insert effects for that program**, click the **All On/All Off** button in the upper-right corner.

So far, we've created a simple drum sequence and a bass line to go with it. Repeat this process to create a second sequence.

## Recording an Audio Track

We've already created some MIDI tracks, so let's record some actual audio for our next track:



1. Press **Main** to go back to Main Mode.
2. Tap the **Audio** tab at the bottom of the touchscreen. **Audio 001** will appear in the **Track** field.
3. If the channel strip is not already shown on the left side of the screen, tap **Input Config** (in the lower part of the touchscreen) or the small **eye icon** (in the upper-left part of the touchscreen) to show it.
4. Connect a synthesizer or other line-level audio source to the 1/4" (6.35 mm) **input/inputs** on MPC X's rear panel, and set the **Line/Phono** selector to **Line**.
5. Double-tap the first field (**Input \_\_**) and select **Input 1** or **Input 1,2** (depending on your audio source) as the input source.
6. If the second field is not set to **Out 1,2**, double-tap it and select that option as the output.
7. Tap the **Monitor** button to cycle through its three states until it reads **Auto** (you will hear incoming audio while the track is record-enabled only).
8. Turn the **Rec Gain** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be "peaking" constantly).
9. If **Solo** and **Mute** on, press them so they are **off**. Also, press **Read/Write** so it is **off** (not **green/Read [R]** or **red/Write [W]**).
10. Press **Rec Arm** to record-enable the track.
11. Press **Rec** or **Overdub** to record-arm MPC X.
12. **To start recording**, press **Play** or **Play Start**—then play your audio source! You should hear your existing sequence playing in the background.  
**To stop recording**, press **Stop**.

Record another audio track for your other sequence: Select the other sequence in Main Mode, and create another audio track (**Audio 002**) to go with that sequence.



## Creating a Song

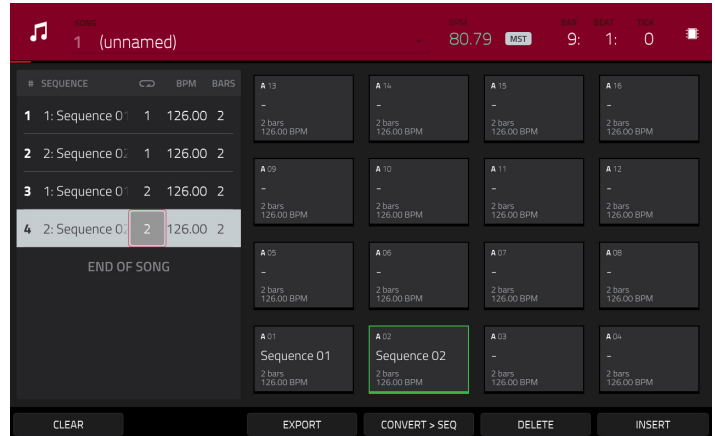
This section explains how to make a song out of your sequences. Before starting, make sure that you have recorded some sequences (which we described [earlier](#)).

**To enter Song Mode**, make sure playback is stopped, press **Shift+Next Seq/Song**. In Song Mode, each of the sequences you've created in this project assigned to a pad. The sequence playlist is to the left of the pads, showing the song's structure.

As a song plays, it moves through each step of the sequence playlist. Each step contains a sequence you assigned. Each step can be repeated, determined by the value in the **Repeat** column (the **repeat icon**; a value of **1** means the sequence will play through only once). The **Bars** column on the right indicates the length of that sequence.

Each step can be set to play its sequence at an independent tempo, determined by the value in the **BPM** column.

**Important:** Each sequence has its own tempo, while the project itself may use a different master tempo. The BPM value for each sequence may be different from the master tempo. As long as playback is set to follow the master tempo, each sequence's individual tempo will be ignored. By default, each project is set to use the sequence tempo, which you set back in the [Creating a Drum Sequence](#) chapter. We recommend tapping the **Seq/Mst** button at the top of the touchscreen (so the button displays **Mst**) and entering a master tempo to ensure all sequences use the same tempo.



**To insert a step at the current position**, tap **Insert**.

**To delete the currently selected step**, tap **Delete**.

**To set which sequence plays for a step**, tap the step's **Sequence** field, and then turn the **data dial** to select a sequence.

**To set how many times a sequence repeats**, tap the step's **Repeat** field (next to the sequence name), and then turn the **data dial** to select a number.

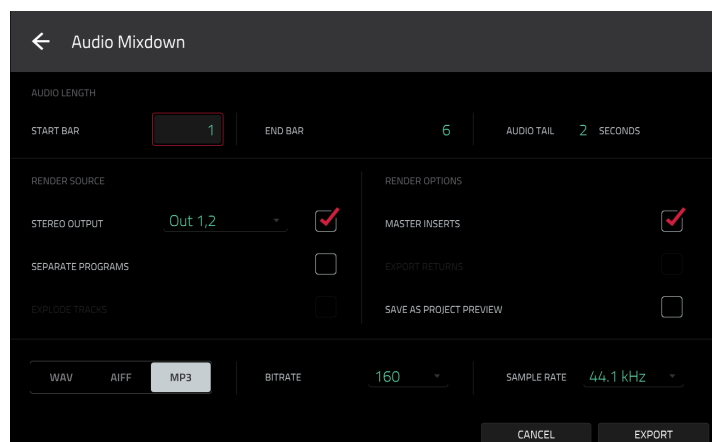
## Exporting the Song

Want to share your new song? Just export it first.

**To export a song:**

- While in Song Mode, tap **Export** at the bottom of the touchscreen.
- In the **Audio Mixdown** screen that appears, do the following:
  - Make sure the **Start** field is set to **1**, and set the **End** field to the last bar of your song.
  - Tap the **Audio Tail** field and turn the **data dial** to set it to **2** seconds.
  - As you'll likely share the song online, tap the **mp3** file format option in the lower-left corner.
- Tap **Export**. Choose where you want to save the song.

**To name the song**, tap the **File Name** field, and use the virtual keyboard that appears to enter a new name, and then tap **Save** to start exporting.





## Other Features Explained

This chapter describes various advanced features. For a fuller explanation of these features, please refer to their corresponding sections in the [Operation](#) chapter.

### Step Sequencer

You've already learned how to record note events on a track, but you can quickly enter note events in the Step Sequencer by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.

**To enter the Step Sequencer**, press **Step Seq**, and then tap **Step Sequencer**. Alternatively, in some modes, you can tap the **steps icon** on the left edge of the touchscreen.



1. Let's create a sequence on a new track. Tap the **Track** field in the upper-left corner, and then use the **data dial** or **-/+** buttons to select an (**unused**) track. Alternatively, double-tap the **Track** field, and then tap a track to select it.
2. Tap the **Track Length** field at the top of the touchscreen to set a length for the track, and then use the **data dial** or the **-/+** buttons to select a length. If you select the minimum value, **Sequence**, the track will be however long your sequence is.

**Tip:** This lets you maintain tracks of different lengths. For instance, you could play a 1-bar drum sequence repeatedly under a 4-bar bass line.

3. Tap the **Bar** **-/+** buttons at the bottom of the touchscreen to select the bar whose steps you want to create or edit. The bar number will appear in the **Bar** field in the upper-left corner.
4. Tap the **Pad** **-/+** buttons at the bottom of the touchscreen to select the pad whose steps want to create or edit. The pad number will appear in the **Pad** field in the upper-left corner.
5. Press **Play** to start your sequence.
6. Each pad represents a step in the bar. If the pad already has note events on the selected track, the corresponding pads (steps) will be lit with colors corresponding to their velocities.

**To enter a note at a step**, press an **unlit pad**. The pad will light up with a color corresponding to its velocity.

**To delete the note from a step**, press a **lit pad**. The pad will become unlit.

**To delete all notes from the entire bar**, press and hold **Shift**, and then tap **Clear Bar** in the lower-right corner.

See [Operation > Modes > Step Sequencer](#) to learn more about this feature.

## Drum Loops & Chop Mode

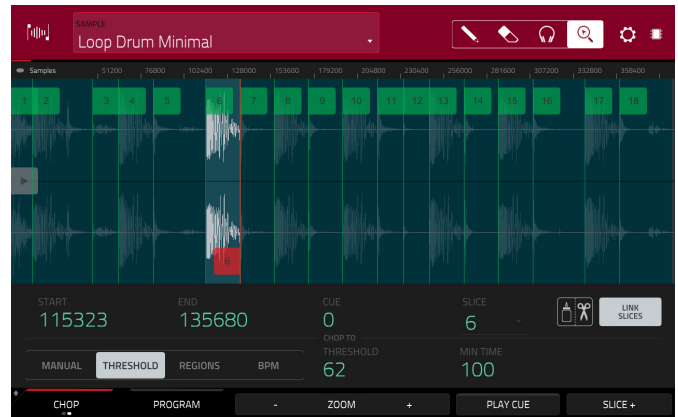
Modern music producers often use drum loops to add grit and nuance to programmed beats. This section explains how to use Sample Edit Mode to work with drum loops.

Use the Browser to locate a drum loop, and then double-tap it to add it to the current program. The loop does not have to match the tempo of anything in the project.

To enter **Sample Edit Mode**, press **Sample Edit**.

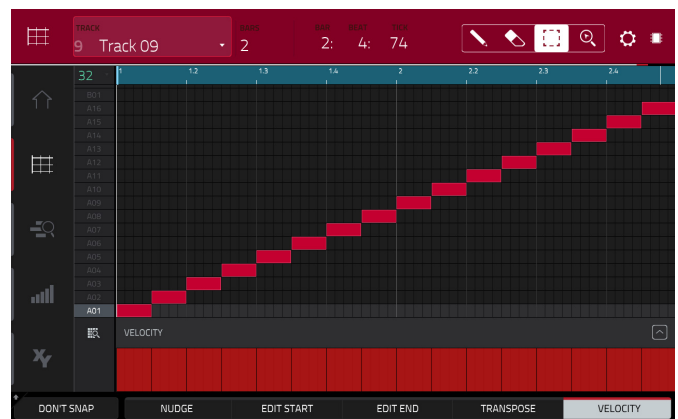
1. Tap the **Sample** field at the top of the touchscreen, and then use the **data dial** or **-/+** buttons to select the loaded drum loop. You can scroll through all loaded samples in the project. Alternatively, double-tap the **Sample** field, and then tap a sample to select it.
2. Tap the **Trim/Chop** tab in the lower-left corner to switch between Trim Mode and Chop Mode. Select Chop Mode, which will let us cut the drum loop into slices.
3. Tap **Threshold**, and then tap the **Threshold** field to the right of it. Use the **data dial**, **-/+** buttons, or **numeric keypad** to select a value. Alternatively, double-tap the **Threshold** field and use the numeric keypad in the touchscreen. The lower the threshold, the more slices will be created. Be sure to select a value so that every transient peak of the drum loop has a corresponding a slice marker.

**Tip:** Each slice will be automatically assigned to a pad: **Pad A01** plays Slice 1, **Pad A02** plays Slice 2, etc. Press each pad to play the slice with the same number.



Let's use this chopped sample to create a new program in which each of these slices is an individual sample. We can also automatically create corresponding note events to play back these slices sequentially.

1. Press and hold **Shift** and then tap **Convert** at the bottom of the touchscreen to enter the **Convert or Assign Slices** window.
2. Tap the **Convert To** field, and then use the **data dial** or **-/+** buttons to select **New Program with New Samples**.
3. Make sure **Crop Samples** is checked. If it is not, tap it.
4. Make sure **Create New Program** is checked. If it is not, tap it.
5. Make sure **Create Events** is checked. If it is not, tap it.
6. Tap the **Bars** field, and then use the **data dial** or **-/+** buttons to select how many bars the entire sample should use in your program.
7. Tap **Do It** to proceed. Each slice will be assigned to a pad, and each pad will have a recorded note event in the track. When you play that track, it will play each pad (each slice) in the original order. Press **Menu** and then tap **Grid View** to see how the sample appears in your sequence.
8. Press **Play** and listen to how the drum loop matches your song tempo now.



You can also edit the note events of the drum loop slices—enter Main Mode to do this. A new track with the note events playing their corresponding slices has been automatically created. Tap the **TC/clock icon** at the top of the touchscreen to use the **Timing Correct** window to quantize the note events so they fall on exact, even time intervals. You can also rearrange the note events, thus creating a new playback order for the slices. You can also edit each slice or sample in Program Edit Mode. You can add effects for slices or use the filter function to change the frequency range of a selected slice. There are almost no limits to what you can do.

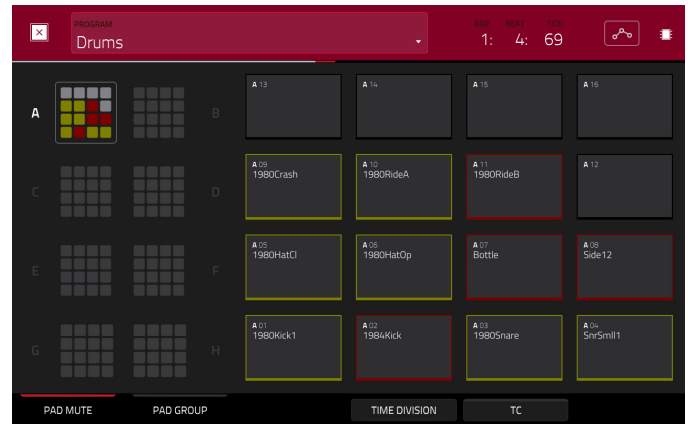
See [Operation > Modes > Sample Edit Mode > Chop Mode](#) to learn more about this feature.

## Pad Muting & Track Muting

Pad Mute Mode and Track Mute Mode let you silence different pads and tracks to see what the sequence sounds like without those samples or parts.

To enter **Pad Mute Mode**, press **Shift+Track Mute/Pad Mute**.

1. Press **Play** to play the sequence.
2. Tap the **Program** field at the top of the touchscreen, and then use the **data dial** or **-/+** buttons to select your drum program. Alternatively, double-tap the **Program** field, and then tap a program to select it.
3. Mute a pad by pressing it once or tapping it on the touchscreen. The muted pad will be lit **red**. You can mute multiple pads at the same time.

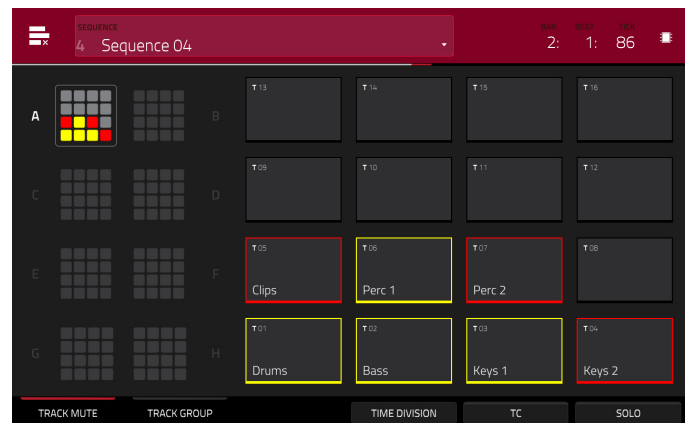


See [Operation > Modes > Pad Mute Mode](#) to learn more about track mutes.

You can also mute entire tracks by using the similar Track Mute function.

To enter **Track Mute Mode**, press **Track Mute**.

1. Press **Play** to play the sequence.
2. Tap the **Sequence** field at the top of the touchscreen, and then use the **data dial** or **-/+** buttons to select the desired sequence. Alternatively, double-tap the **Sequence** field, and then tap a sequence to select it.
3. Each pad is assigned to a track. Mute a track by pressing the corresponding pad or tapping it on the touchscreen. The pad will be lit **red**. You can mute multiple tracks at the same time.



**Tip:** To mute a track only at precise note intervals (“quantizing” your mutes, essentially), tap **Time Division** to set a musical timing value. Tap the desired musical value (e.g., **1 Bar**). Alternatively, use the **data dial** or **-/+** buttons. Tap **Close** to close the page. Now, when you press a pad in Track Mute Mode, the mute will occur precisely at the beginning of the following time division (in this example, one bar). This lets you test musical combinations of patterns—the preliminary stage to building a song structure.

See [Operation > Modes > Track Mute Mode](#) to learn more about track mutes.

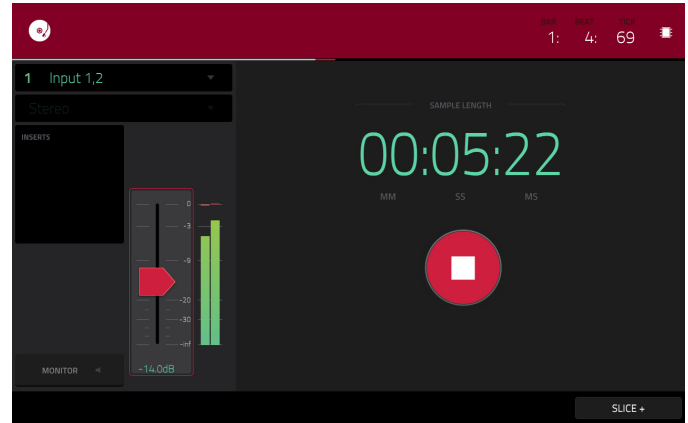
## Sampling (Recording)

This section describes recording new samples of your own, which you can use in your projects.

**Important:** To record any audio, you need to connect an audio source to your MPC X or to your computer's audio interface.

To open the Sampler, press **Sampler**.

1. Connect an audio source to the input/inputs of your MPC X.
2. The **Input** \_\_\_ menu in the upper-left corner should be set to **Input 1,2** (the inputs of your MPC X). If it is not, and select **Input 1,2**.
3. Turn the **Rec Vol** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be "peaking" constantly).
4. Tap and drag **threshold slider** to set the threshold. Alternatively, use the **data dial** or **-/+** buttons. Set it to a fairly low level (e.g., **-50 dB**).
5. Tap **Arm** to record-arm the Sampler.
6. Play your audio source. The Sampler will start recording immediately when the input level reaches the threshold value. Alternatively, tap the round **Record** button to manually start recording.
7. **To stop recording**, tap the round **Stop** button. The **Keep or Discard Sample** window will appear.



In the **Keep or Discard Sample** window:

**To name the new sample**, tap the **Edit Name** field and use the virtual keyboard to enter a name.

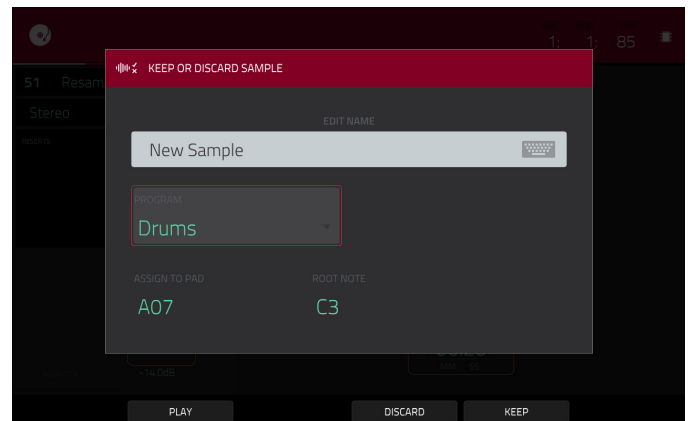
**To assign the new sample to a program**, tap the **Program** field, and then use the **data dial** or **-/+** buttons to select the desired program. Alternatively, double-tap the **Program** field, and then tap a program to select it.

**To assign the sample to a pad in the program**, tap the **Assign to Pad** field, and then press the desired **pad**. Alternatively, use the **data dial** or **-/+** buttons to select the desired pad number, or double-tap the **Pad** field, and then tap a pad number.

**To confirm your selections**, tap **Keep** at the bottom of the touchscreen.

**To discard the recording and return to the previous screen**, tap the **Discard** button.

**To play the recording**, tap the **Play** button at the bottom of the touchscreen.



See [Operation > Modes > Sampler](#) to learn more about this feature.

## Sample Editing

You may need to edit your newly recorded samples using Sample Edit Mode.

To enter **Sample Edit Mode**, press **Sample Edit**.

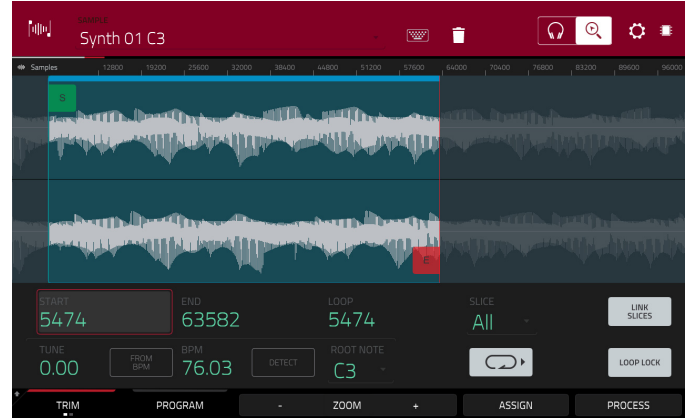
In Sample Edit Mode:

To switch between **Trim Mode** and **Chop Mode**, tap the **Trim/Chop** tab at the bottom of the touchscreen. In this example, use **Trim Mode**.

To set the sample's start point, use the **first** column of **Q-Link knobs** (when the **Screen Control** Q-Link button is selected) to adjust the start point with varying degrees of resolution. Alternatively, tap and drag the **S** marker in the waveform. You can also tap the **Start** field and use the **numeric keypad** to enter a value (or double-tap the **Start** field and use the numeric keypad in the touchscreen).

To set the sample's end point, use the **second** column of **Q-Link knobs** (when the **Screen Control** Q-Link button is selected) to adjust the end point with varying degrees of resolution. Alternatively, tap and drag the **E** marker in the waveform. You can also tap the **End** field and use the **numeric keypad** to enter a value (or double-tap the **End** field and use the numeric keypad in the touchscreen).

To hear your edits, press **Pad 10** to play the sample from the start point to the end point.



Let's apply some processing to the sample.

To open the **Process Sample** window, tap **Process** at the bottom of the touchscreen.

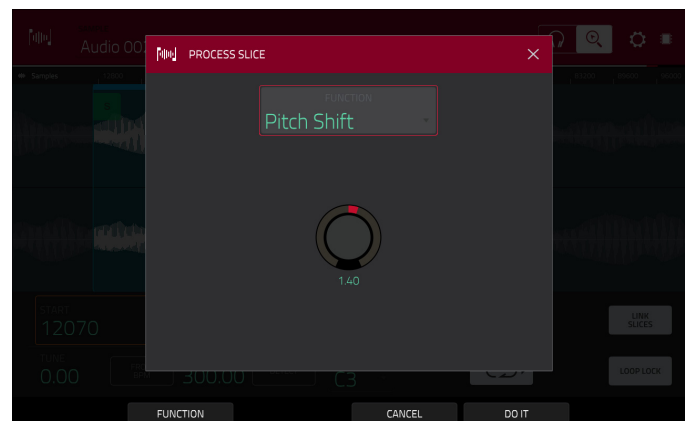
1. Use the **data dial** or **-/+** buttons to select the desired process in the **Function** field. Alternatively, tap **Function** or double-tap the **Function** field, and then tap the desired process. Let's select **Pitch Shift** to change the overall pitch of your sample. This will transpose the sample without affecting its length.

2. To set the **pitch shift amount**, tap and drag the **knob** in the center of the window up or down. Alternatively, use the **data dial** or **-/+** buttons.

To make **finer adjustments**, double-tap the **knob** and adjust the larger version that appears. Tap anywhere else to return to the previous screen.

3. To confirm your selections, tap **Do It**.

To cancel the process, tap **Cancel**.

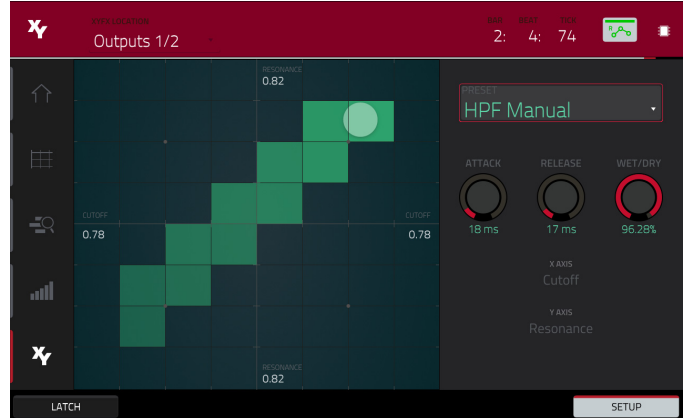


See [Operation > Modes > Sample Edit Mode](#) to learn more.

## Recording Automation with the XY Pad

Automating various parameters is a good way to add some motion and dynamism to your sequences.

1. Press **XYFX** to enter XYFX Mode.
2. Double-tap the **XYFX Location** field, and select **Program**.
3. When you first enter this mode in a project, you will be prompted to “load” XYFX to the program. Tap **Insert XYFX** to do this.
4. Tap **Setup** to show the Setup panel, which controls how the XY pad behaves.
5. Double-tap the **Preset** field, and tap an effect to select it. (These are just the effects available in XYFX Mode, not all MPC effects.) Swipe up or down to view the entire list.
6. Tap and drag any of the knobs (**Attack**, **Release**, or **Wet/Dry**) up or down to set their values as desired. Below them, you can see what parameter the X axis and Y axis control.



**Note:** XYFX uses an envelope to control how quickly the effect crossfades between the dry signal and wet signal. The **Attack** knob determines how long it takes the completely dry signal to reach the wet signal (determined by the **Wet/Dry** knob) after you touch the XY pad. The **Release** knob determines how long it takes the wet signal (determined by the **Wet/Dry** knob) to return to the completely dry signal after you touch the XY pad.

7. Press **Read/Write** to cycle through the available automation modes. Make sure the button is **red** (the **Write (W)** option).
  8. Press **Play Start** to start recording.
  9. As you record, move your finger over the **XY pad** on the touchscreen. The changes in the sound are being recorded as automation of both the X axis and Y axis parameters.
- Tip:** While touching the **XY pad**, tap **Latch** in the lower-left corner to keep the marker on the XY pad even after you release it. The marker will remain there until you touch another part of the XY pad or until you tap **Latch** again.
10. When you are done recording, press **Stop**.
  11. Press **Read/Write** to select the **green/Read (R)** option. This ensures your track uses the automation you just recorded when you play it back.

See [Operation > Modes > XYFX Mode](#) to learn more about using this feature.

## Using MPC X as a Controller

If you are using the MPC software on your computer, you can switch MPC X into **Controller Mode**, allowing you to use it to control the software. The MPC software offers the same features and functionality as MPC X in Standalone Mode but with some notable differences, which are discussed in [Operation > General Features > Standalone vs. Controller Mode](#).

## Operation

This chapter explains the complete features and functions of your MPC X.

### Important:

- When accessing the secondary functions of buttons on your MPC X, you can do this one of two ways: (1) pressing and holding **Shift** and then pressing the desired button or (2) double-pressing the desired button. This manual describes these operations using only the first option, but both are acceptable.
- Almost every mode shown in the touchscreen has 1–6 buttons at the bottom. Each of these buttons select a different tab in that mode or perform a specific function in that mode.

You can press the **F-Key** button to activate or deactivate the F-Key feature. When active, the six buttons under the display correspond to the options shown at the bottom edge of the touchscreen. The F-Key button and those six buttons will be lit **red** when active. When inactive, the six buttons under the display will access their normal modes instead (**Menu**, **Browser**, **Step Seq**, **Sampler**, **XYFX**, and **Looper**).

- When the left-most button at the bottom of the touchscreen shows an upward arrow (↑), it means there are additional buttons you can use when you press and hold **Shift**. Press and hold **Shift** to show the secondary buttons, and any of them, if desired. Release **Shift** to return to the previous buttons.
- As an alternative to tapping a control in the touchscreen to select it, you can use the **cursors** to navigate through the controls on the touchscreen. The **center cursor** acts as an **Enter** key.
- When a parameter is highlighted and has a red outline, this means that it is selected. You can then change it by turning the hardware's **data dial** or using the **-/+** buttons. If the parameter is a number, try using the **numeric keypad** to enter a specific value, or double-tap it to show a numeric keypad in the touchscreen.





## General Features

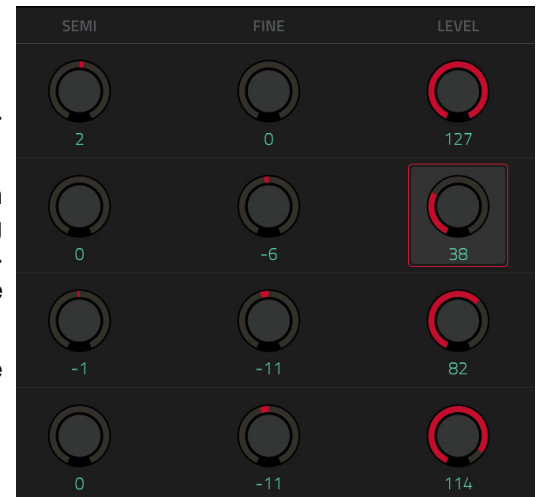
### Control Types

The MPC X uses the following types of control elements:

#### Knobs

To set the value for a knob, do any of the following:

- Tap and drag the knob up or down.
- Tap the knob to select it, and then use the **data dial** or **-/+** buttons to adjust the value.
- Double-tap the knob or press the **center cursor** or **Enter** (when the knob is selected) to show it in a larger screen. Tap and drag the larger version that appears, or use the **data dial** or **-/+** buttons to adjust the value. Tap anywhere else to return to the previous screen.
- Press and hold **Shift** while turning the **data dial** to adjust a value by smaller increments.





## Parameter Values

To set the value for a parameter, do either of the following:

- Tap the field to select it, and then use the **data dial** or **-/+** buttons to adjust the value.

When the value has decimal places, you can sometimes press and hold **Shift** and then use the **data dial** or **-/+** buttons to adjust the value by smaller increments.

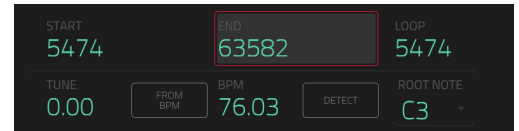
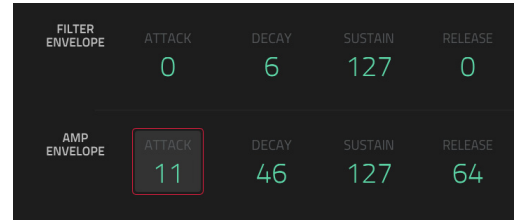
- Double-tap the field or hold your finger on it for a second. In the screen that appears, use the **numeric keypad**, the **data dial**, or the **-/+** buttons to adjust the value. Alternatively, tap and drag the value up or down.

You can also tap **/2** to halve the value or **x2** to double it.

To confirm the value and remain on this screen, tap **Apply**.

To confirm the value and return to the previous screen, tap **Do It**.

To return to the previous screen without changing anything, tap the gray area in the upper-left corner of the touchscreen.

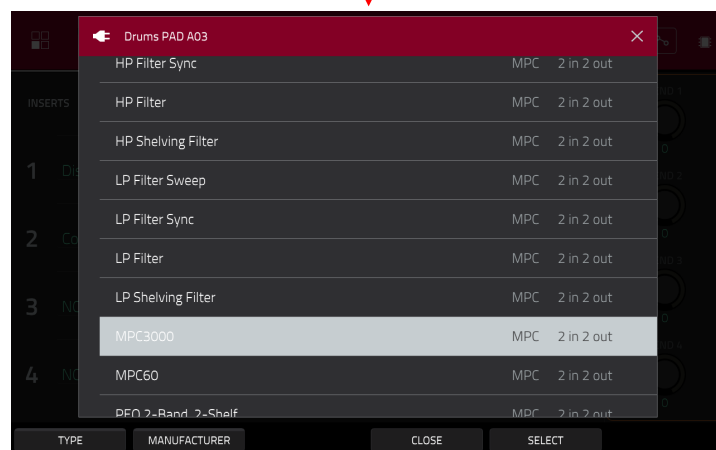
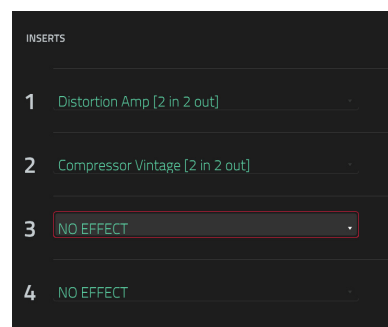
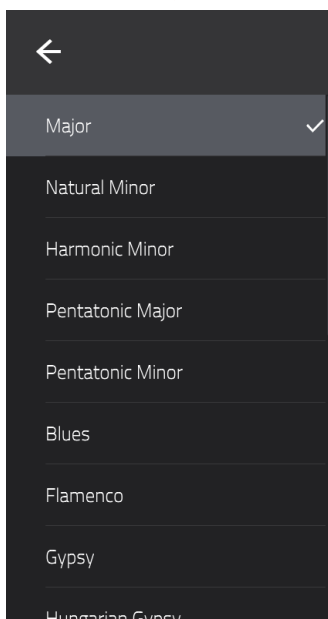
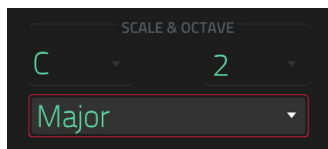


## Drop-Down Menus / Lists

To select an option for a drop-down menu, do any of the following:

- Tap the field to select it, and then use the **data dial** or **-/+** buttons to select an option.
- Double-tap the field. In the list that appears (examples below), tap the desired option. Alternatively, use the **data dial** or the **-/+** buttons to select an option.

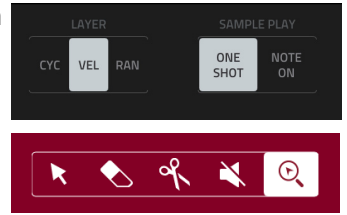
In some windows, tap the relevant button at the bottom of the touchscreen to confirm your selection or to cancel without changing anything.



### Selectors

Selectors show all available options. One of them is always selected. The selected option is highlighted while the others are dark.

To select an option, tap it.

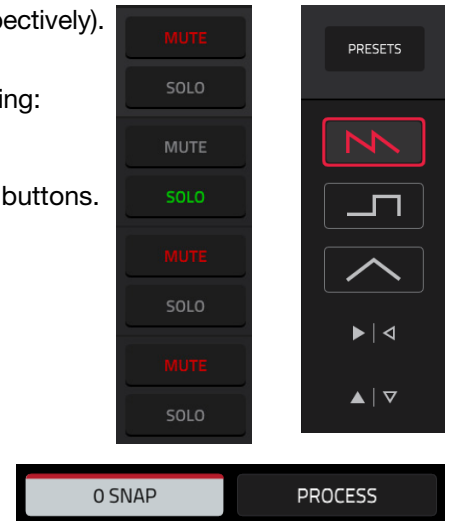


### Buttons

Buttons usually have two states: selected and deselected (active or inactive, respectively). Some may have more than two states.

To switch between or cycle through a button's states, do either of the following:

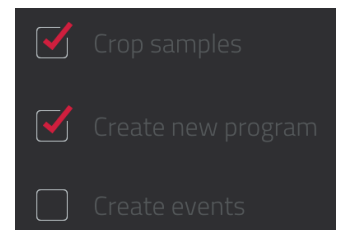
- Tap it.
- If it is outlined in red (and is not a mute button), use the **data dial** or **-/+** buttons.



### Checkboxes

Checkboxes have two states: checked and unchecked (enabled or disabled, respectively).

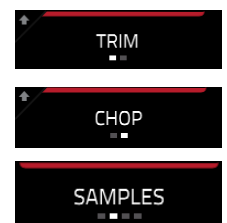
To check or uncheck a checkbox, tap it.



### Tabs

Some modes have buttons at the bottom of the touchscreen that let you cycle through several similar tabs. For instance, you could view the send level that is routed to each of four returns—each level is shown on a separate tab. With each tap, you will move to the next tab, indicated by the squares below it.

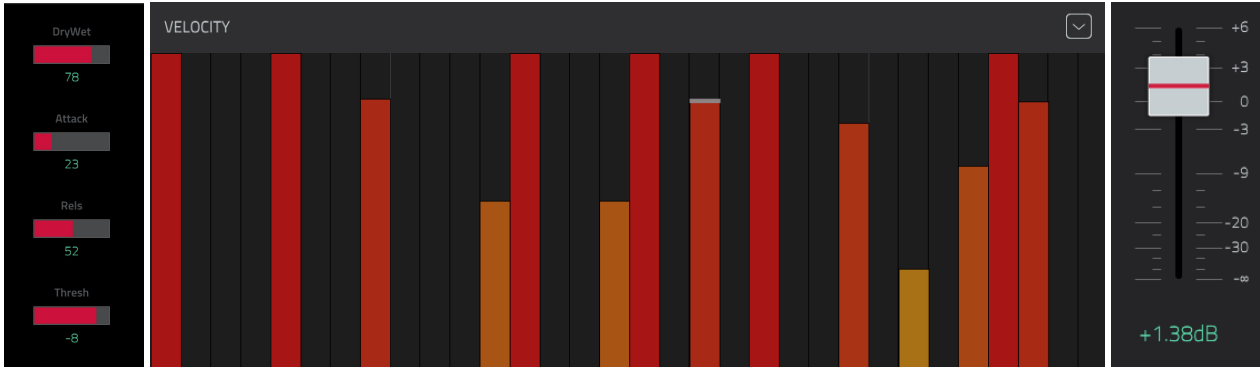
To select a tab, tap it. Each time you tap it, it will select the next tab.



### Sliders

To adjust the position of a slider, do any of the following:

- Tap and drag the slider to the desired position.
- Tap the desired position (this works only on some sliders).
- Tap the slider to select it, and then use the **data dial** or **-/+** buttons to adjust the position (this works only on some sliders).
- Double-tap the slider, and then tap and drag the larger version that appears, or use the **data dial** or **-/+** buttons to adjust the value. Tap anywhere else to return to the previous screen.



### Envelopes

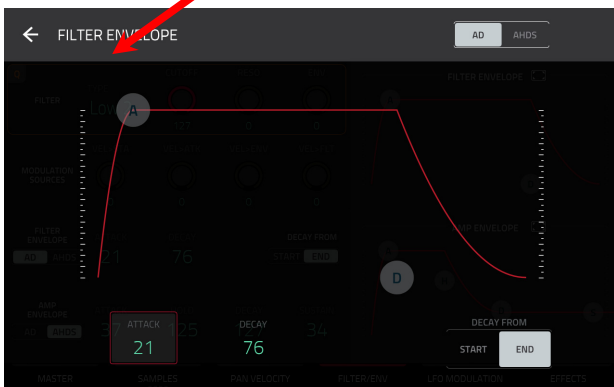
To set the stages of an envelope, do either of the following:

**Tip:** Tap the **expand-rectangle icon** above the envelope to show a closeup view.

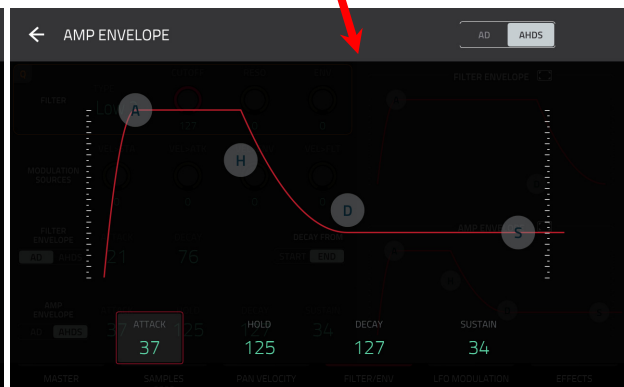
- Tap and drag a “handle” of an envelope stage in the desired direction.
- Set the numeric value of an envelope stage by adjusting or entering it as a parameter value (described [earlier](#)).



The Filter Envelope tab in Program Edit Mode.



Closeup of an AD-type filter envelope.



Closeup of an AHDS-type amp envelope.

## Grid View Tools

In Grid View, these four icons enable you to use different functions in the grid. Tap one to select its mode:



**Pencil:** Draw Mode:

**To enter a note in an empty grid square**, tap the grid square.

**To select a note**, tap it.

**To move a note**, tap and drag it to another grid square.

**To erase a note**, double-tap it.



**Eraser:** Erase Mode:

**To erase a note**, tap it.



**Select Box:** Select Mode:

**To select a note**, tap it.

**To select multiple notes**, tap and drag across the grid to create a box around them.

**To move a note**, tap and drag it to another grid square.

**To move multiple notes**, select them as described above, and tap and drag them.

**To erase multiple notes**, select them as described above, and then select the Eraser tool and tap any of the selected notes.



**Magnifying Glass:** Navigation Mode:

**To move to another part of the grid**, tap and drag it.

**To zoom in or out**, spread or pinch your fingers (respectively) on the grid. You can do this vertically, horizontally, or both at the same time.

## Audio Edit Tools

In Audio Edit Mode, these five icons enable you to use different functions in the waveform. Tap one to select its mode:



**Arrow:** Select Mode:

**To select a region of an audio track,** tap it.

**To move a region of an audio track,** tap and drag it.

**To adjust the start or end point of a region of an audio track,** tap and drag the lower part of its left or right edge.



**Eraser:** Erase Mode:

**To erase a region of an audio track,** tap it.



**Scissors:** Split Mode:

**To split two regions of an audio track,** tap it.



**Mute:** Mute Mode:

**To mute or unmute a region of an audio track,** tap it.



**Magnifying Glass:** Navigation Mode:

**To move to another part of the waveform,** tap and drag it.

**To zoom in or out,** spread or pinch your fingers (respectively) on the waveform. You can do this vertically, horizontally, or both at the same time.

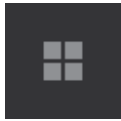
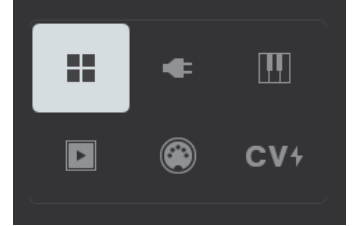
## Programs

### About Programs

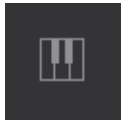
Each track you create within a sequence is routed through a **program**. There are six types of programs, each of which determines how the track sounds or what it is used for. A single project can hold up to 128 programs.

This chapter covers how to create each program type.

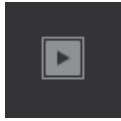
To learn about editing your programs to your preference, see the [Modes > Program Edit Mode](#) chapter.



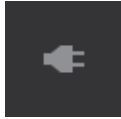
A **drum program** uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.). Drum programs are used mostly for creating drum parts and quickly and easily assigning samples to pads. See [Drum Programs](#) for more information.



A **keygroup program** uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pitch tuning, effects, etc.). Keygroup programs are used to play samples chromatically with a MIDI keyboard or the MPC pads. See [Keygroup Programs](#) for more information.

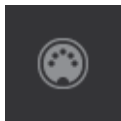


A **clip program** uses several samples that can be looped (clips). Each clip can be assigned to a pad, which you can press to trigger the clip according to a quantization setting. This lets you create intriguing, layered performances by launching different combinations of clips together. See [Clip Programs](#) for more information.

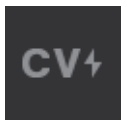


A **plugin program** contains an instance of a plugin through which you can send your track's MIDI data. See [Plugin Programs](#) for more information.

**Important:** Plugin programs are available only while using MPC X in Controller Mode with the desktop version of the MPC software. They are not available in Standalone Mode.



A **MIDI program** lets you send your track's MIDI data to an external MIDI device like a synth or drum machine. See [MIDI Programs](#) for more information.



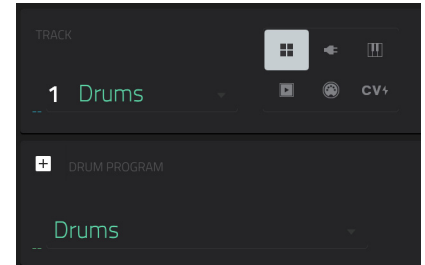
A **CV program** lets you send your track's MIDI data to an external MIDI device that uses control voltage (CV), like a synth. See [CV Programs](#) for more information.

## Drum Programs

A drum program uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.). Drum programs are used mostly for creating drum parts and quickly and easily assigning samples to pads.

### To create a drum program:

1. Press **Main** to enter Main Mode.
2. Next to the **Track** field, tap the **four-squares icon**, which indicates a drum program.
3. If the project does not contain a drum program yet, a new drum program (named **Program**, appended with a number) will be added automatically to the project and appear in the **Program** field below.



If the project already contains a drum program, the first one will be selected automatically and appear in the **Program** field below.

**To create another drum program**, tap the **+ icon** above the **Program** field. A new drum program will be created and appended with a number (e.g., **Program 002**).

**To rename the program**, tap the **cursor icon** on the right edge of the **Program** section. Use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the touchscreen to cancel.

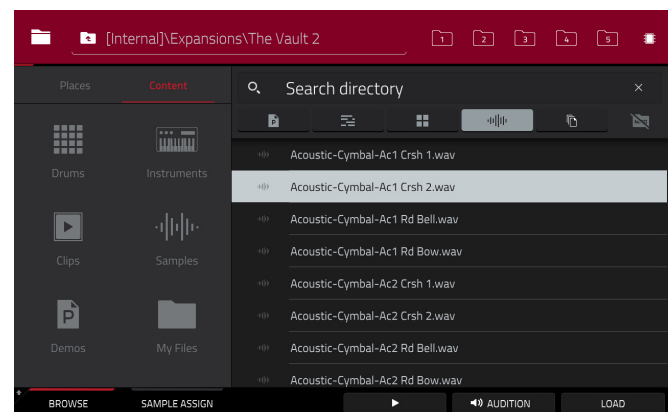
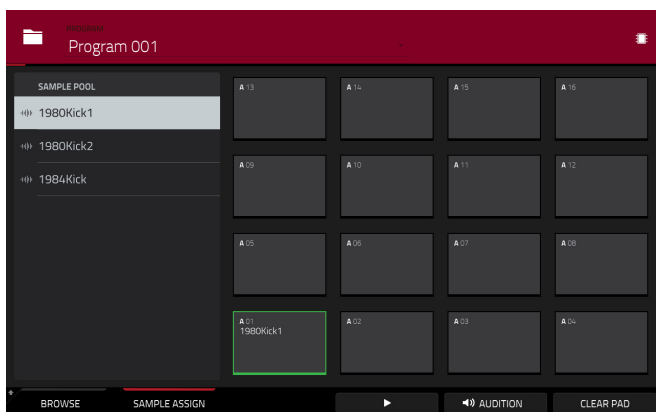
### To load a sample into a drum program:

1. Press **Browse** to show the Browser. Find and select a sample, and then tap **Load** to load it to the program. Repeat this for any other samples you want to load into the project. (See [Modes > Browser](#) to learn more about using the Browser specifically.)
2. Tap **Sample Assign** to view the pads and project's sample pool.
3. Press or tap a pad to select it. The pad will be lit green.
4. In the **Sample Pool** list, tap a sample to assign it to the pad. Alternatively, use the **data dial** or **-/+** buttons to assign a sample and/or change the assigned sample.

**To clear the assigned sample from a selected pad**, press the **center cursor** or **Enter**.

**To assign samples to additional pads**, repeat Steps 3–4.

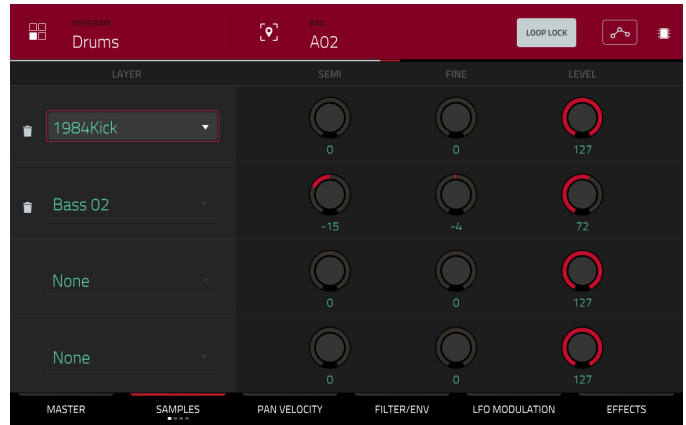
**Tip:** Remember that a drum program has 128 pads total—16 pads across eight banks.



**Alternatively, assign samples in a drum program this way:**

1. Press **Prog Edit** to enter Program Edit Mode.
2. Tap **Samples**. This lets you view the samples assigned to all four layers of the current keygroup as well as tuning and level parameters for each layer.
3. Tap a pad to select it (and play its assigned samples, if any). The pad will be lit green.
4. Tap the field for a layer, and then use the **data dial** or **-/+** buttons to select a sample. Alternatively, double-tap the field for a layer, and then tap a sample to select it.

**Tip:** Use the **first** column of **Q-Link knobs (Layer \_\_ Sample)** to quickly select a sample for each layer of the selected pad.



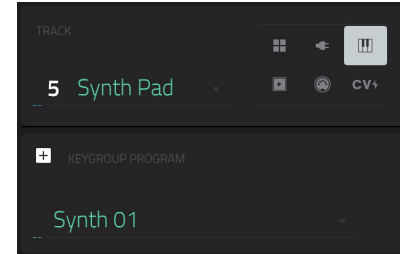


## Keygroup Programs

A keygroup program uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pitch tuning, effects, etc.). Keygroup programs are used to play samples chromatically with a MIDI keyboard or the MPC pads.

### To create a keygroup program:

1. Press **Main** to enter Main Mode.
2. Next to the **Track** field, tap the **piano-keys icon**, which indicates a keygroup program.
3. If the project does not contain a keygroup program yet, a new keygroup program (named **Program**, appended with a number) will be added automatically to the project and appear in the **Program** field below.



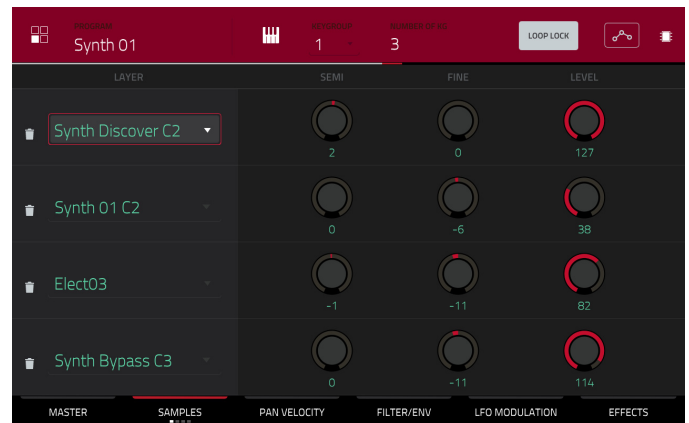
If the project already contains a keygroup program, the first one will be selected automatically and appear in the **Program** field below.

**To create another keygroup program**, tap the **+ icon** above the **Program** field. A new keygroup program will be created and appended with a number (e.g., **Program 002**).

**To rename the program**, tap the **cursor icon** on the right edge of the **Program** section. Use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the touchscreen to cancel.

### To assign samples in a keygroup program:

1. Press **Prog Edit** to enter Program Edit Mode.
2. Tap **Samples**. This lets you view the samples assigned to all four layers of the current keygroup as well as tuning and level parameters for each layer.
3. Tap the **Number of KG** field, and then use the **data dial** or **-/+** buttons to set the number of keygroups in the program (**1–128**). Alternatively, tap the **Number of KG** field, and then use the numeric keypad to enter a value (or double-tap the **Number of KG** field, and then use the numeric keypad in the touchscreen).
4. Tap the **Keygroup** field, and then use the **data dial** or **-/+** buttons to select a keygroup. Alternatively, double-tap the **Keygroup** field, and then tap a keygroup to select it.
5. Tap a pad to play the sample in the keygroup. The pad will be lit green.



**Tip:** On your MPC X, press the **Pad Bank D** button to and press **Pad 13**. You should hear the sample played back with its original pitch. You can use the other pads to play your sample chromatically.

6. Tap the field for a layer, and then use the **data dial** or **-/+** buttons to select a sample. Alternatively, double-tap the field for a layer, and then tap a sample to select it.

**Tip:** Use the **first column of Q-Link knobs (Layer \_\_ Sample)** to quickly select a sample for each layer of the selected pad.

To create complex keygroup programs, you can add more keygroups (up to 128). This is useful when working with multi-samples (e.g., when programming a real piano).

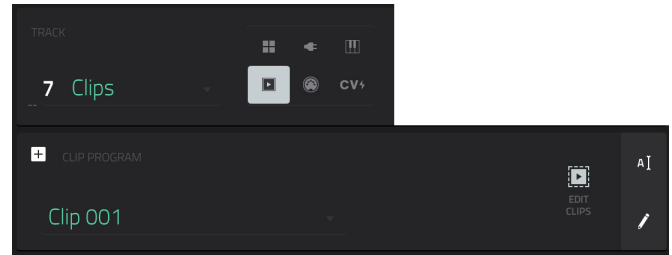
**Tip:** Remember that a keygroup program offers up to 128 keygroups, and each keygroup can hold up to four samples (Layers 1–4). This is a total of 512 samples.

## Clip Programs

A **clip program** uses several samples that can be looped (clips). Each clip can be assigned to a pad, which you can press to trigger the clip according to a quantization setting. This lets you create intriguing, layered performances by launching different combinations of clips together.

By default, the 16 pads are divided into four columns of four pads. Each column represents a mute group; when a pad is playing a clip, all other pads in that same mute group are turned off. This enables you to launch a clip without having to manually stop other clips that are similar. For instance, pressing Pad 2 may launch a bass clip. You could then press Pad 6, which launches another bass clip and stops the clip on Pad 2. This way, you'll never be playing two bass clips simultaneously.

The four-columns pad configuration described above is just a default to make things easy (e.g., you could use the first column for drum clips, the second for bass clips, the third for keyboard clips, and the fourth for vocal clips.). You can use Program Edit Mode to assign pads to any combination of mute groups you want.



### To create a clip program:

1. Press **Main** to enter Main Mode.
2. Next to the **Track** field, tap the **play-button icon**, which indicates a clip program.
3. If the project does not contain a clip program yet, a new clip program (named **Clip**, appended with a number) will be added automatically to the project and appear in the **Program** field below.

If the project already contains a clip program, it will be selected automatically and appear in the **Program** field below.

**To create another clip program**, tap the **+ icon** above the **Program** field. A new clip program will be created and appended with a number (e.g., **Clip 002**).

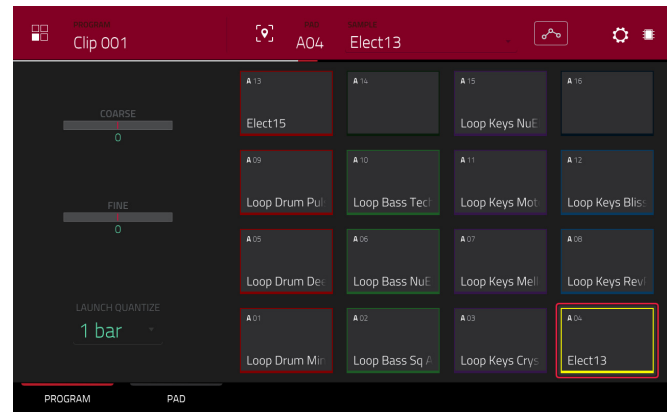
**To rename the program**, tap the **cursor icon** on the right edge of the **Program** section. Use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the touchscreen to cancel.

**To load a clip into a clip program:**

1. Press **Main** to enter Main Mode.
2. Tap **Edit Clips** to view the pads and clip settings.
3. Press or tap a pad to select it (and play its assigned samples, if any). The pad in the touchscreen will be lit red, and its number will appear in the **Pad** field.
4. Tap the **Sample** field, and then use the **data dial** or **-/+** buttons to select a clip. Alternatively, double-tap the **Sample** field, and then tap a clip to select it.

**To clear the assigned clip from a selected pad,** repeat Step 4, but select **None**.

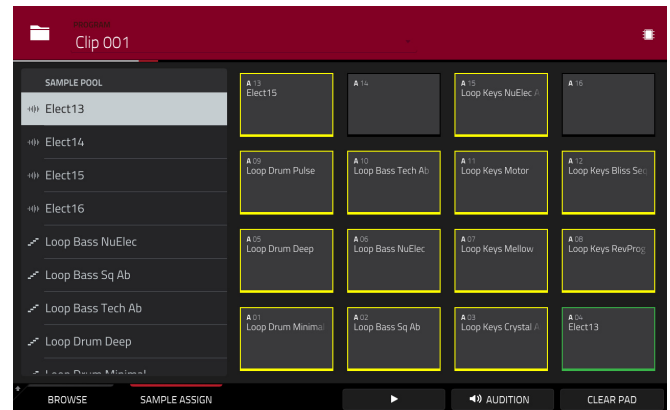
**To assign clips to additional pads,** repeat Steps 3–4.

**Alternatively, assign clips in a clip program this way:**

1. Press **Browse** to show the Browser. Find and select a clip, and then tap **Load** to load it to the program. Repeat this for any other clips you want to load into the project. (See [Modes > Browser](#) to learn more about using the Browser specifically.)
2. Tap **Sample Assign** to view the pads and project's sample pool.
3. Tap **Assign Mode** so it is selected (tapping an item in the sample pool will now assign it automatically to the current pad). be lit green.
4. In the **Sample Pool** list, tap a clip to assign it to the pad. Alternatively, use the **data dial** or **-/+** buttons to assign a clip and/or change the assigned clip.

**To clear the assigned clip from a selected pad,** press the **center cursor** or **Enter**.

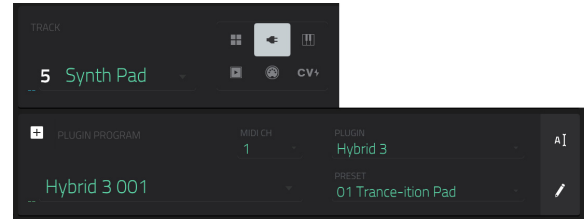
**To assign clips to additional pads,** repeat Steps 4–5.



## Plugin Programs

A plugin program contains an instance of a plugin through which you can send your track's MIDI data. This lets you use the same instance of a plugin with multiple tracks (rather than load an instance of a plugin on every track, which can be cumbersome and CPU-intensive).

**Important:** Plugin programs are available only while using MPC X in Controller Mode with the desktop version of the MPC software.



### To create a plugin program:

1. Press **Main** to enter Main Mode.
2. Next to the **Track** field, tap the **plug icon**, which indicates a plugin program.
3. If the project does not contain a plugin program yet, a new plugin program (named **Plugin**, appended with a number) will be added automatically to the project and appear in the **Program** field below.

If the project already contains a plugin program, the first one will be selected automatically and appear in the **Program** field below.

**To create another plugin program**, tap the **+ icon** above the **Program** field. A new plugin program will be created and appended with a number (e.g., **Plugin 002**).

4. Double-tap the **Plugin** field. In the list that appears, tap the desired plugin. Alternatively, use the **data dial** or the **-/+** buttons to select a plugin.

**To sort your plugins by type or maker**, tap **Type** or **Manufacturer**.

5. Tap **Select** to select the plugin, or tap **Close** to cancel.

**Note:** You have to specify the disk directory where your plugins are located. This can be done in the software's **Preferences** (in the **Edit** Menu). See the user guide in the MPC software to learn more: click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.

**To select the MIDI channel the program will use**, double-tap the **MIDI Ch** field. In the list that appears, tap the desired channel. Alternatively, use the **data dial** or the **-/+** buttons to select a channel. Use this setting when you are working with a virtual instrument plugin that supports multi-mode.

**To select a preset in your plugin** (if any), double-tap the **Preset** field. In the list that appears, tap the desired preset. Alternatively, use the **data dial** or the **-/+** buttons to select a preset.

**To rename the program**, tap the **cursor icon** on the right edge of the **Program** section. Use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the touchscreen to cancel.

### To adjust the volume and panning of a track using the plugin program:

1. Press **Ch. Mixer** to enter the Channel Mixer.
2. Double-tap the **Mixer** field in the upper-left corner, and then tap **Midi Tracks**.
3. Tap the square that represents the track with the plugin program to select it.
4. Tap and drag the **volume slider** or **pan knob** up or down to adjust it. After you do this once, you can adjust the volume and panning of the plugin program normally.

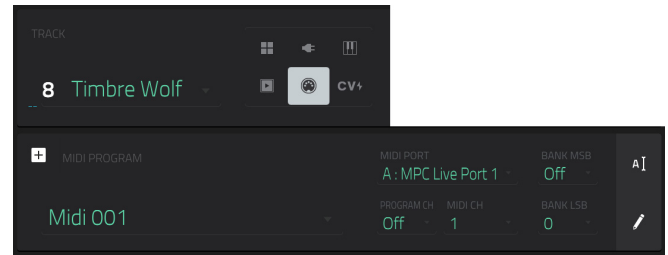
### Important:

If you copy a sequence, the volume and pan values will be copied with that sequence. This is also true if you move to a new sequence and put the same plugin program on a new track.

By default, some plugins do not support MIDI volume and pan. In this case, adjust volume levels and panning on the plugin program.

## MIDI Programs

A MIDI program lets you send your track's MIDI data to an external MIDI device like a synth or drum machine.



### To create a MIDI program:

1. Press **Main** to enter Main Mode.
2. Next to the **Track** field, tap the **MIDI-jack icon**, which indicates a MIDI program.
3. If the project does not contain a MIDI program yet, a new MIDI program (named **Midi**, appended with a number) will be added automatically to the project and appear in the **Program** field below.

If the project already contains a MIDI program, it will be selected automatically and appear in the **Program** field below.

**To create another MIDI program**, tap the **+** icon above the **Program** field. A new MIDI program will be created and appended with a number (e.g., **Midi 002**).

4. There are five additional settings to configure for a MIDI program: the **MIDI Port**, program change message (**Prog Ch**), MIDI channel (**MIDI Ch**), Most Significant Byte (**Bank MSB**), and Least Significant Byte (**Bank LSB**).

**To configure each setting**, double-tap its field. In the list that appears, tap the desired option. Alternatively, use the **data dial** or the **-/+** buttons to select an option.

**Note:** You also have to configure the MIDI ports in the software's **Preferences** (in the **Edit Menu**). See the user guide in the MPC software to learn more: click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.

**To rename the program**, tap the **cursor icon** on the right edge of the **Program** section. Use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the touchscreen to cancel.

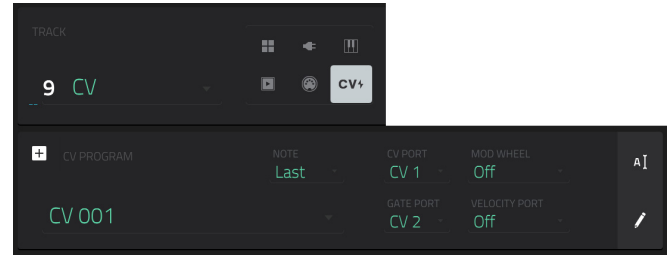
### To adjust the volume and panning of a track using the MIDI program:

1. Press **Ch. Mixer** to enter the Channel Mixer.
2. Double-tap the **Mixer** field in the upper-left corner, and then tap **Midi Tracks**.
3. Tap the square that represents the track with the MIDI program to select it.
4. Tap and drag the **volume slider** or **pan knob** up or down to adjust it. After you do this once, you can adjust the volume and panning of the MIDI program normally.

**Important:** If you copy a sequence, the volume and pan values will be copied with that sequence. This is also true if you move to a new sequence and put the same MIDI program on a new track.

## CV Programs

A CV program lets you send your control voltage (CV) signals to an external MIDI device like a synth or drum machine that uses CV.



### To create a CV program:

1. Press **Main** to enter Main Mode.
2. Next to the **Track** field, tap the **CV icon**, which indicates a CV program.
3. If the project does not contain a CV program yet, a new CV program (named **CV**, appended with a number) will be added automatically to the project and appear in the **Program** field below.

If the project already contains a CV program, it will be selected automatically and appear in the **Program** field below.

**To create another CV program**, tap the **+** icon above the **Program** field. A new CV program will be created and appended with a number (e.g., **CV 002**).

4. There are five additional settings to configure for a CV program: the note tracking (**Note**), the **CV Port**, the **Gate Port**, the modulation wheel (**Mod Wheel**), and **Velocity Port**.

**To rename the program**, tap the **cursor icon** on the right edge of the **Program** section. Use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the touchscreen to cancel.

## Menu

The Menu lets you select any of the 20 modes, save your project, set your preferences, switch between Standalone Mode and Controller Mode, or view your system resources.

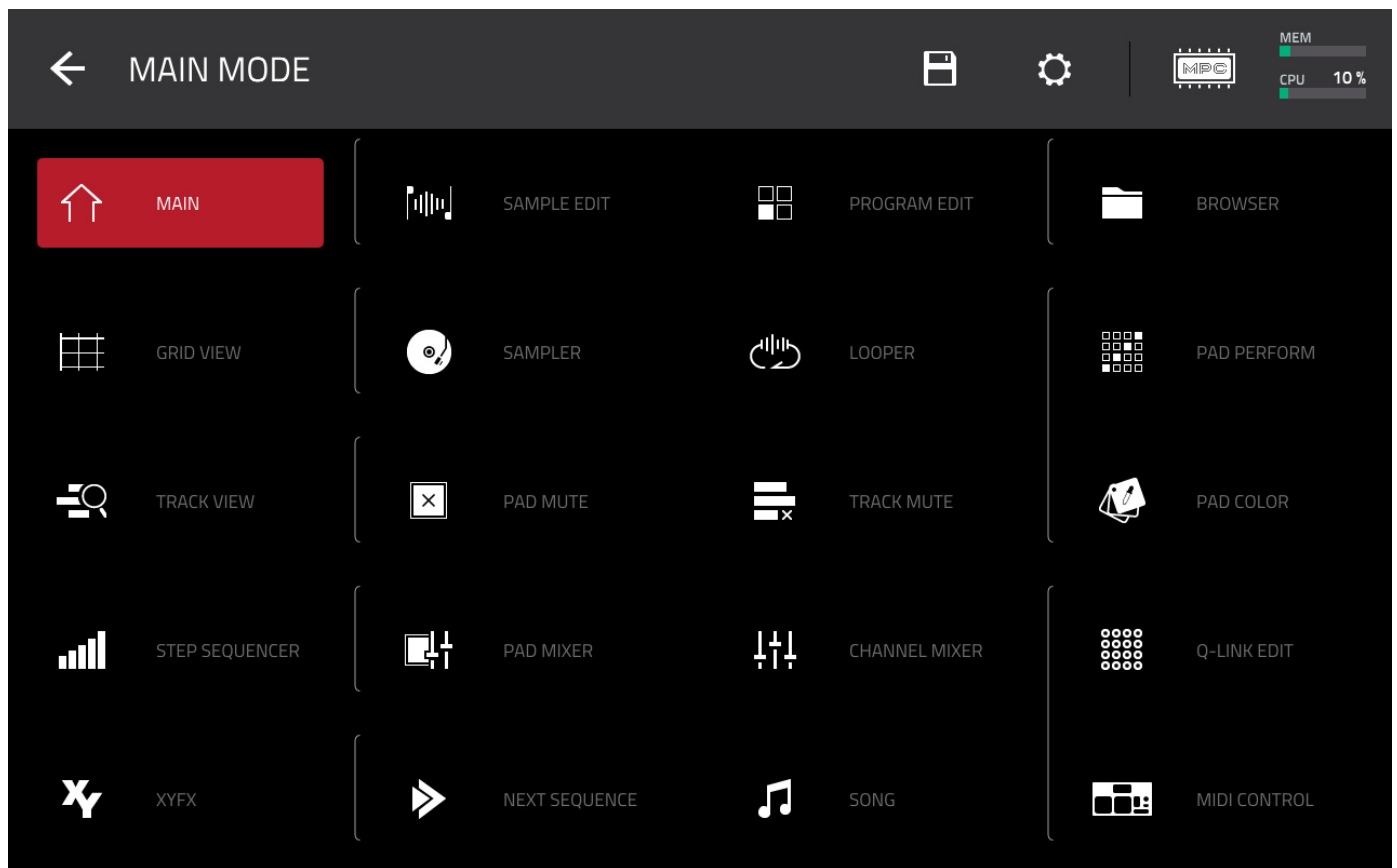
**To open the Menu**, press **Menu**, or tap the icon in the upper-left corner of the touchscreen while on the normal page of your current mode.

When viewing the Menu, do any of the following:

**To enter a mode**, tap it.

**Important:** If a sequence is currently playing, you will not be able to enter Song Mode. Stop playback before entering Song Mode.

**To return to the previous mode**, tap the gray area in the upper-left corner, or press **Menu** again.



Click a part of the screen above to skip directly to that part of this user guide.

## Save

To save the project, tap the **disk icon** at the top of the touchscreen. Alternatively, press **Shift+Browse/Save**. If you have already saved the project, your changes will be saved. If you have not saved the project yet, use the **Save** window to save the project:

To select the storage device you want to view, tap it in the **Storage** column on the left. **Internal** is the MPC X's internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder on the internal drive. If you have storage devices connected to MPC X's USB ports or SD card slot, they will appear in this column, as well.

To enter a folder, double-tap it. Alternatively, turn the **data dial** or use the **-/+** buttons to move through the list, and press the **center cursor** or **Enter** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see [Modes > Browser](#) to learn how to do this).

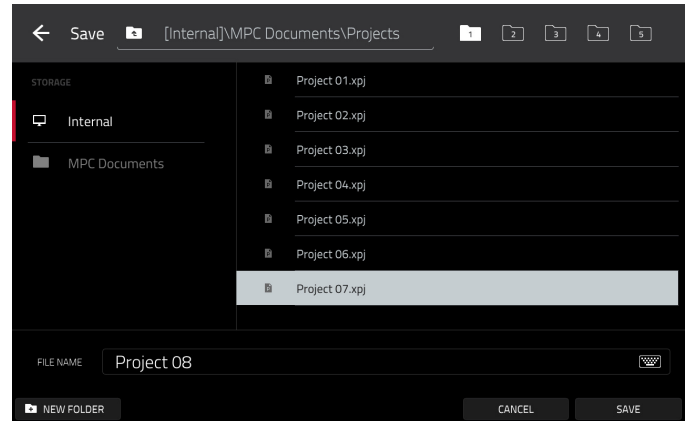
To create a new folder, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

To move up one folder level, tap the **folder/↑** icon.

To name the file, tap the **File Name** field at the bottom of the touchscreen, and use the virtual keyboard that appears.

To save the file, tap **Save**.

To cancel and return to the Menu, tap **Cancel**. Alternatively, tap the **←** icon in the upper-left corner.

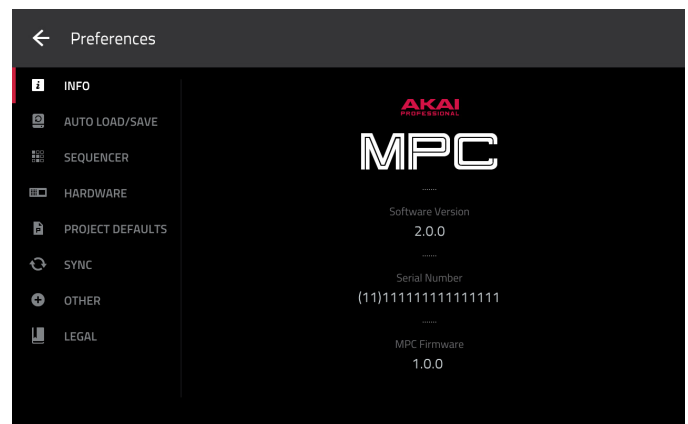


## Preferences

To return to the Menu, tap the **←** icon in the upper-left corner. Any changes you have made in the Preferences will be retained.

To restore your MPC X's default settings, tap **Reset**. In the screen that appears, tap **OK** to continue or **Cancel** to return to the Preferences. In the next window, tap **Save** to save your current project before restoring the default settings; tap **Cancel** to return to the Preferences; or tap **Don't Save** to restore the default settings without saving your current project.

To enter Update Mode, press and hold **Shift** and tap **Update**. In the screen that appears, tap **Save** to save your current project before entering Update Mode; tap **Cancel** to return to the Preferences; or tap **Don't Save** to enter Update Mode without saving your current project.



### Info

This screen shows current information about your MPC X: its current firmware version, which includes its standalone operating system (**MPC Firmware**); its hardware **Serial Number**; and its current firmware for the **Control Surface**.

### Auto Save

The settings on this screen determine if (and how) projects are automatically saved.

**Enabled:** When enabled, MPC X will automatically save your current project after each **Timeout** interval. When disabled, MPC X will not automatically save your project; you may save only manually.

**Timeout:** Use this field to select how often your project will automatically save.



## Sequencer

The settings on this screen determine how sequencing works in Grid View and in the Step Sequencer.

**Display Resolution:** This is the display resolution (in PPQN—pulses per quarter note) of pulse values in certain areas of the operating system. Please note that this setting affects the display resolution, not the timing.

**Instant Track Mute:** When disabled, if you mute a track, its Note On messages will be ignored, and samples and notes that are playing will finish playing their entire length (this is how legacy MPCs' track-muting worked). This is useful if you are using loops and want a loop to play to the end of a bar but **not** play the next time the sequence loops. When enabled, if you mute a track, the MIDI track volume (**0**) will be sent. The loop will continue to play but at zero volume, allowing the loop to continue playing when the track is unmuted. This is useful when you want to have the track muted immediately.

**Play Track Mute and Solo Events:** When enabled, track mute and solo events are played back when you are in Track Mute Mode. When disabled, track mute and solo events will not be played back while in Track Mute Mode.

**Record Track Mute and Solo Events:** When enabled, track mute and solo events are recorded when you are in Track Mute Mode (timing correct settings will affect the recorded position events). When disabled, track mute and solo events will not be recorded while in Track Mute Mode. This feature is useful if you want to use Track Mute Mode to record track mutes or solos into your sequences as opposed to using Track Mute Mode for performance or listening purposes only.

**Record Pad Aftertouch Event:** When enabled, pad aftertouch data (from MPC X's pressure-sensitive pads) will be recorded. When disabled, pad aftertouch data will be ignored.

**Place Events Recorded During Count-In at Start Point:** When enabled, pressing a pad during the recording's pre-count will record that note event at the start of the recording (this is how the MPC3000 worked). When disabled, no notes will be recorded until the pre-count is finished and recording has begun.

**Truncate Duration:** This determines if/how events are cropped if they exceed the length of the current Sequence:

**To Sequence Length:** If the length of an event exceeds the length of the sequence, it will be truncated. This ensures that the event will not overlap itself when the sequence loops.

**To Sequence End:** If an event exceeds the length of the sequence, it will be truncated to the end of the current sequence. In other words, the event will stop playing when the sequence ends or loops.

**As Played:** Events will play back exactly as they were recorded, even if they overlap themselves when the sequence loops.

## Hardware

The settings on this screen determine the behavior of MPC X's pads and touchscreen.

**Pad Threshold:** This determines how much force is required to strike the pads for them to trigger.

**Pad Sensitivity:** This determines how the pads respond to touch. At lower values, you need to use more force to generate a high-velocity note. At higher values, it is easier to generate high-velocity notes, even if you do not use much force while pressing a pad.

**Pad Curve:** This determines how striking the pads translates into velocity values. The **A** curve is essentially linear, while the **B**, **C**, and **D** curves are exponential (see graphic here).

**Velocity & Aftertouch:** View these meters when striking and pressing the pads to help gauge the force and pressure you are applying to them. These meters are useful when adjusting the Pad Threshold and Pad Sensitivity parameters (above).

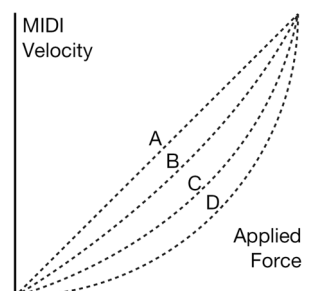
**Footswitch 1 & Footswitch 2:** These determine how connected footswitches will work. These options are not available for MPC X, which does not have footswitch inputs.

**MIDI Control Mode Output:** This determines which MIDI port MPC X is using to send MIDI messages to external MIDI devices.

**Screen Dimming:** This determines how much time must pass before MPC X automatically dims its touchscreen.

**Screen Brightness:** This determines the brightness of the screen during normal operation: normal brightness (**Day**) or dimmed (**Night**).

**VU Meter Source:** This determines what audio signal level is shown in the level meters (on the right side of the touchscreen). When set to **Master**, the level meters show the audio signal sent out of **Outputs 1/2** (the **Main L/R outputs** on the rear panel). When set to **Current Program**, the level meters show the audio signal of the currently selected program (i.e., the program used by the currently selected track and any other tracks that also use it).



## WiFi/Bluetooth

The settings on this screen will determine how MPC X's wireless and Bluetooth connections work. We will add this functionality in a near-future release. Check [akaipro.com](http://akaipro.com) to ensure you are using the latest software version. Your MPC X's current firmware (which includes its standalone operating system) is in the **Info** screen of these Preferences.

## Project Defaults

The settings on this screen determine various default values for any new project that you create.

**Default Tempo:** This is the default tempo in BPM.

**Default Master Tempo:** When enabled, the default tempo value will be used for the master tempo. When disabled, the default tempo will be used for sequences.

**Default Sequence Bars:** This determines the default number of bars of a new sequence.

**Default Time Signature Numerator:** This determines the number of beats per bar of a new sequence (the top number of a time signature).

**Default Time Signature Denominator:** This determines the value of each beat of a new sequence (the bottom number of a time signature).

**Default Pad Slice:** This determines how new samples will play when you load them or record them into a project. When set to **Pad**, the **Slice** menu in Program Edit Mode will be set to **Pad**, which lets you set the start point, end point, etc. for the layer. When set to **All**, the **Slice** menu in Program Edit Mode will be set to **All**, in which the entire sample plays.

**Default Drum/Keygroup Filter:** This determines the default type of filter that drum and keygroup programs will use.

**New Project Dialog:** This determines what options you see when you start a new project. When set to **Off**, a new project will be empty with no preconfigured settings except for the project defaults shown here. When set to **Demo**, you can choose to load a demo project (from several different genres) as a starting point or an empty project. When set to **Demo/Template/Recent**, you can choose to load a demo project, a project template file, or an empty project.

## Sync

The settings on this screen determine how MPC X synchronizes with connected USB and MIDI devices.

**Receive MIDI:** This determines whether MPC X receives MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MIDI Time Code (MTC)**), or neither (**Off**).

**MTC Frame Rate:** This determines the frame rate used by MIDI Time Code (MTC), which is important for correct timing, especially when working on film scoring projects. In most cases, you should select **25**.

**Send MIDI:** This determines whether MPC X sends MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MIDI Time Code (MTC)**), or neither (**Off**).

**Start Time:** This is the starting time that will be sent when **Send MIDI** is set to anything other than **Off**. The time is formatted in **hours:minutes:seconds:frames**.

**Send Port 1 & Send Port 2:** These are the MIDI ports over which MIDI Clock or MTC information will be sent.

**Receive MMC:** When enabled, MPC X will be able to receive MIDI Machine Control (MMC) information. When disabled, MPC X will not receive this information.

**Send MMC:** When enabled, MPC X will be able to send MIDI Machine Control (MMC) information. When disabled, MPC X will not send this information.

## Other

The settings on this screen determine how other features work in the hardware and operating system.

**Tap Tempo:** This determines how many times you have to press the **Tap Tempo** button before the new tempo is recognized.

**Flash Tap Tempo Light:** When enabled, the **Tap Tempo** button's light will flash in time with the tempo. When disabled, the **Tap Tempo** button's light will be off.

**Bank Button Press:** This determines how the **Pad Bank** buttons work.

**Select A-D:** Pressing a **Pad Bank** button once will select the corresponding bank from Pad Banks A–D. Pressing and holding **Shift** while pressing a **Pad Bank** button will select the corresponding bank from Pad Banks E–H.

**Select/toggle bank:** Pressing a **Pad Bank** button will alternate between the corresponding bank from Pad Bank A–D and Pad Bank E–H. In other words, you do not need to hold Shift to select one of Pad Banks E–H.

**Filter 'All Notes Off' CC:** When enabled, "All Notes Off" ("MIDI panic") messages will be ignored. This is useful if you are using an external MIDI device that can send these types of messages but you want to filter them out. When disabled, "All Notes Off" messages will be received normally.

**Program Change:** This determines what an incoming MIDI program change message will change: a **Program**, **Sequence**, or **Track**.

**Vintage Mode:** This determines the type of emulation applied to the audio output. You can apply the particular sonic qualities of, for example, the **MPC3000** or **MPC60**, or of course no emulation (**None**).

**Sampling Bit Depth:** This determines bit depth of the audio recorded from a sample.

**Audition Auto Play:** This determines how long a sample will sound when auto-previewing it.

**Cue Preview:** This determines if/how audio is played as you move the cue playhead. As you move the cue playhead through a sample waveform, you can set it to play the small part of the sample before the cue playhead (**Before**), play the small part of the sample after the cue playhead (**After**), or not play at all (**Off**). You can also set this in Sample Edit Mode (see [Modes > Sample Edit Mode > Settings](#)).

**Slice Preview:** This determines if/how audio is played as you move a slice marker. As you move the slice marker through a sample waveform, you can set it to play the small part of the sample before the slice marker (**Before**), play the small part of the sample after the slice marker (**After**), or not play at all (**Off**). You can also set this in Sample Edit Mode (see [Modes > Sample Edit Mode > Settings](#)).

**Screensaver Disable:** This determines if/when your computer's screensaver is disabled while using the MPC software (using MPC X in Controller Mode):

**Never:** Your computer's screensaver will function normally.

**When hardware attached:** As long as your MPC X is connected to your computer and powered on, your computer's screensaver will be disabled. It will function normally again if you power off or disconnect your MPC X from your computer.

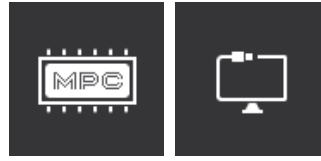
**Always:** Your computer's screensaver will be disabled as long as the MPC software is open (whether or not your MPC X is connected or powered on).

## Legal

This screen shows legal information relevant to MPC. For complete legal information, visit [akaipro.com/product-legal](http://akaipro.com/product-legal)

## Mode

Tap this icon to switch MPC X between Standalone Mode and Controller Mode. In the screen that appears, select whether you want to save your current project before switching (**Save**), switch without saving your project (**Don't Save**), or stay in the current mode and project (**Cancel**). You cannot freely switch between Standalone and Controller Modes without also closing your current project.



## System Resources

Tap one of these icons to show the System Resources window.

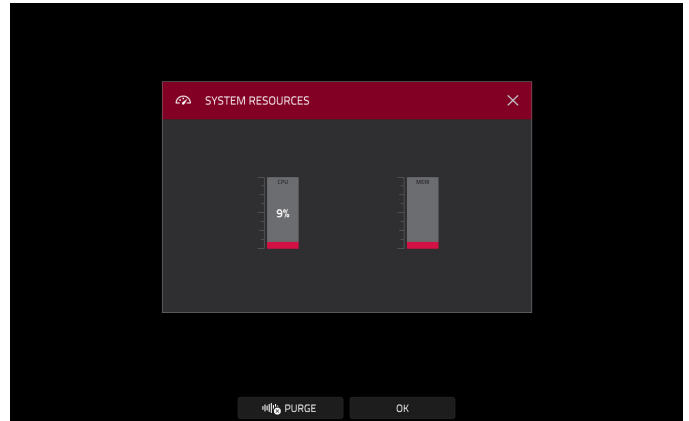
The indicators in this window show current usage statistics:

**CPU:** The first indicator shows the current **CPU** as a percentage.

**RAM Usage (Mem):** The second indicator shows MPC X's current RAM usage.

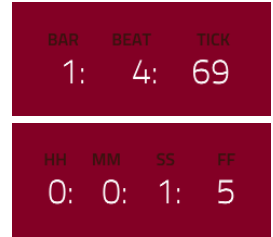
**To delete samples from the project** (to create more free RAM space for sampling time, audio recording, etc.), tap **Purge**. In the screen that appears, tap **Unused Samples** to delete all unused samples from the project, tap **All Samples** to delete all samples from the project, or tap **Cancel** to return to the previous screen.

**To close the System Resources window**, tap **OK**, the **X** in the upper-right corner, or anywhere outside the window.



## Time Counter

In most of the available modes, there is a time counter at the top of the touchscreen. This indicates the current playhead position.



**To adjust the position**, tap it, and then use the **data dial** or the **-/+** buttons.

**To open the Locate screen and adjust its settings**, double-tap the **time counter**.

**To close the Locate screen**, tap the **X** in the upper-right corner or anywhere outside the window.

**To move forward or backward a step**, tap the **Step <** or **Step >** button, respectively.

**To move forward or backward a bar**, tap the **Bar <<** or **Bar >>** button, respectively.

**To switch the time increments**, tap the **Beat/Time selector**. When set to **Beats**, the time is shown in **Bars**, **Beats**, and **Ticks**. When set to **Time**, the time is shown in hours (**HH**), minutes (**MM**), seconds (**SS**), and frames (**FF**).

**To configure your auto record settings**, use the **Auto Record** selector and adjacent fields:

**Auto Record selector:** Tap the desired option to select it:

**Off:** Auto recording is disabled.

**Punch In:** You can auto record using punch-in and punch-out markers, enabling you to record over a specified length of time in the track. While recording, the entire sequence will play, but you will record over only the area between the **Punch In** and **Punch Out** markers. Any part of the sequence before the Punch In marker or after the Punch Out marker will remain untouched, even if you perform over it during recording.

**Record Start:** After you record-arm the track and start playback, you will start recording once the sequence loops back to its start. This is essentially a punch-in feature for the entire track, enabling you to start playing a record-armed track while allowing more time than the usual count-in to prepare for the actual recording to start.

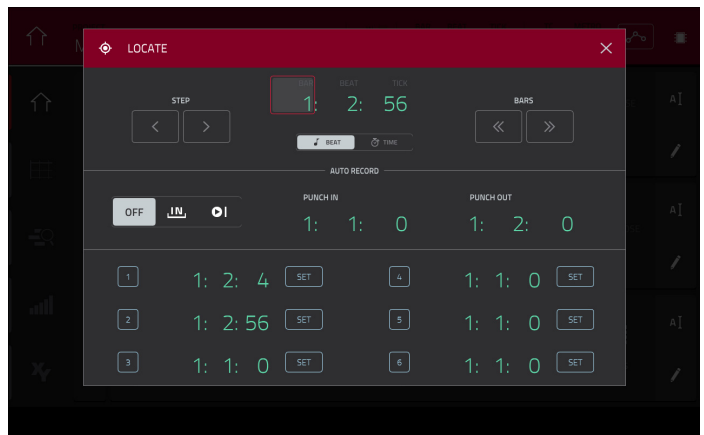
**Punch In:** Use these fields to set the location of the Punch In marker, which is where recording will start (when the **Auto Record selector** is set to **Punch In**).

**Punch Out:** Use these fields to set the location of the Punch Out marker, which is where recording will stop (when the **Auto Record selector** is set to **Punch In**).

You can use this screen to set time markers, allowing you to jump automatically to precise locations in a sequence. You can set up to six time markers.

**To set a time marker**, tap the **time counter** at the top of the screen, find the desired time, and then tap **Set** next to the desired time marker. The time will appear next to that marker.

**To jump to a time marker**, tap the number next to it (1–6).



## Automation

You can set the automation for programs and audio tracks to be “written,” “read,” or disabled entirely. You can do this globally or for individual programs and audio tracks.

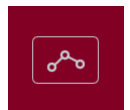
### Global

In several modes, there is a button in the upper-right corner that controls the global automation. When you tap this button to change its state, it will change the automation state for all programs in the project.

This is available in Main Mode, XYFX Mode, Pad Mute Mode, the Pad Mixer, Program Edit Mode, the Channel Mixer, and Q-Link Edit Mode.

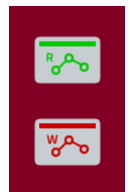
Tap the **global automation button** to cycle through its three states:

When **off**, automation data will be ignored. If you have already recorded or entered automation, this will switch between **Read (R)** and **Write (W)** only, but you can override this and turn it off by pressing and holding **Shift** while tapping the button.



**Important:** If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, automation data will be read but recorded. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)



When set to **Write (W)**, automation can be recorded and will overwrite any existing automation. (Make sure not to touch the XY pad accidentally while you are recording.)

### Programs & Audio Tracks

You can also set the automation for each program or audio track by using the program automation button in the channel strip on the left side of the screen in Main Mode and the Channel Mixer. Program automation is available for all program types except MIDI programs.

**Note:** Remember that tapping the global automation button will change the automation state for all programs in the project; if they were originally different, all of them will then match the global automation state.

In Main Mode, if the channel strip is not already shown, tap the small **eye icon** below the **Project** field to show it.

In the Channel Mixer, if you do not see a program automation button in the channel strip, make sure the **Mixer** field is set to **Audio Tracks** or **Programs**.

Press **Read/Write** or tap the **program automation button** to cycle through its three states:

When **off**, the program will ignore automation data. If you have already recorded or entered automation, this will switch between **Read (R)** and **Write (W)** only, but you can override this and turn it off by pressing and holding **Shift** while pressing or tapping the button.



**Important:** If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the program will read automation data but will not record any additional automation over it. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)



When set to **Write (W)**, the program can record automation. (If you have any Q-Link knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording.)



## 16 Level

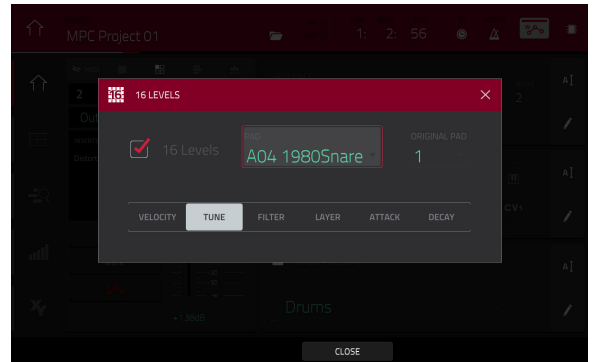
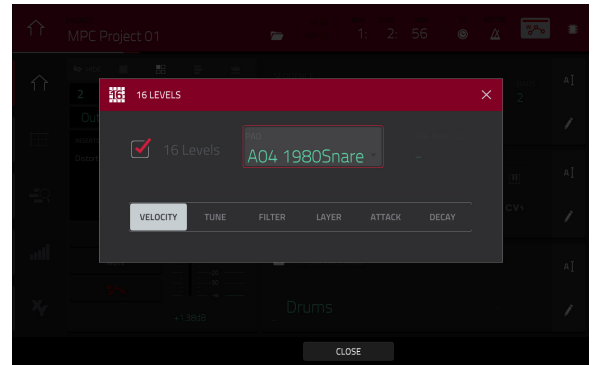
Press the **16 Level** button on your MPC X to activate or deactivate **16 Level**.

When first activated, the selected pad (**Pad A01** by default) will be temporarily copied to all 16 pads. The pads will now output the same note number as the initial pad, but a selectable parameter will be fixed at values that increase as the pad numbers increase (e.g., Pad 1 is the minimum, Pad 16 is the maximum), regardless of how hard you press them.

In the **16 Levels** screen that appears, use the **Type** selector to choose the parameter: **Velocity**, **Tune**, **Filter**, **Layer**, **Attack**, or **Decay**.

**To select a pad**, do any of the following (while the **16 Levels** window is open):

- Press and hold **16 Level**, and then press the desired **pad**.
- Tap the **16 Levels** checkbox to uncheck it (temporarily disabling the feature), press the desired **pad**, and then tap the **16 Levels** checkbox again to check it.
- Tap the **Pad** field, and use the **data dial** or **-/+** buttons.
- Double-tap the **Pad** field, and tap the desired pad in the list that appears.



## Erase

The Erase function erases all or part of a track in a specific sequence.

**To open the Erase window**, press the **Erase** button. Alternatively, while in Main Mode, tap the **pencil icon** on the right edge of the section, and then tap Erase in the screen that appears.

**To select the sequence you want to erase**, use the **Sequence** field.

**To select the track you want to erase within the sequence**, use the **Track** field.

**To set the time range of the sequence you want to erase**, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

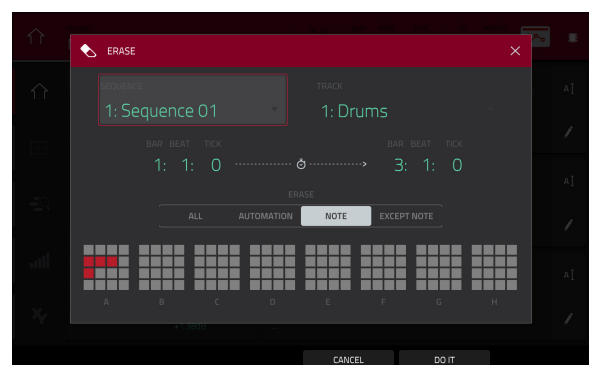
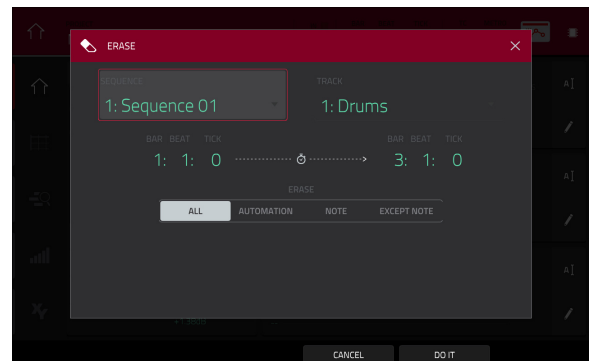
**To select what types of events you erase**, select one of the Erase options:

**All** erases all pad events from the designated time range and reset all of its settings.

**Automation** erases only automation from the designated time range.

**Note** erases only specific pad events from the designated time range. In the diagram of the eight pad banks that appears, press each pad in each bank to select or deselect its notes.

**Except Note** erases everything **except** pad events from the designated time range.



**To confirm your choice**, tap **Do It**.

**To cancel and return to the previous screen**, tap the **X**, **Cancel**, or anywhere outside the window.



## Effects

You can apply various effects to the pads, keygroups, audio tracks, programs, submixes, and master outputs, using **insert** and **send/return** effects. This chapter can help you get a good overall understanding of how the effects work.

See [Appendix > Effects & Parameters](#) for a list of all available effects (with a brief description of each) and their editable parameters.

### Overview

In a program, each **pad** or **keygroup** can have up to **four insert effects** applied to it. See [Insert Effects > Pads](#) or [Insert Effects > Keygroups](#) to learn more about this.

An entire **program** or **audio track** can also have up to **four insert effects** applied to it, as well. See [Insert Effects > Programs](#) or [Insert Effects > Audio Tracks](#) to learn more about this.

For even further flexibility, each **submix** can have up to **four insert effects** applied to it. You can route pads, keygroups, audio tracks, or programs to a submix, which is then routed to a master output. See [Insert Effects > Submixes](#) to learn more about this.

Additionally, each **pad**, **keygroup**, **audio track**, **program**, and **submix** can each be sent to (up to) **four return channels**, each of which can have up to **four insert effects** of their own. Their audio will be routed through the insert effects on those returns, and the processed audio will be returned to their original channels. See [Send/Return Effects](#) to learn more about this.

Finally, you can apply up to **four insert effects** to each master output (a stereo pair of channels: **Outputs 1/2**, **Outputs 3/4**, etc.). See [Insert Effects > Masters](#) to learn more about this.

When you create an audio mixdown of a sequence or song, you can choose whether or not master insert effects are included or send/return effects are included, depending on what you are mixing down:

If you are creating an audio mixdown of a pair of **master outputs**, you can choose whether or not **master insert effects** will be included in the mixdown.

If you are creating an audio mixdown of **separate programs** or **exploded tracks**, you can choose whether or not **send/return effects** will be included in the mixdown.

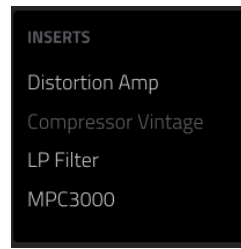
See [Audio Mixdown](#) to learn about these options.

There are three other modes that handle effects differently:

- The **Sampler** can use up to **four insert effects**, which are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about the Sampler in the [Modes > Sampler](#) chapter.
- Similarly, the **Looper** can use up to **four insert effects**, which are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about the Looper in the [Modes > Looper](#) chapter.
- In **XYFX Mode**, the effects act like a single insert effect on that program. In fact, **XYFX** is the name of the insert effect you have to load to the program before you can use this mode. Learn more about XYFX Mode in the [Modes > XYFX Mode](#) chapter.



To view, load, edit, or clear effects, tap the area under the **Inserts** field. This usually appears in a channel strip (next to a **level slider** and **pan knob**).



When viewing loaded effects, you will see this window:

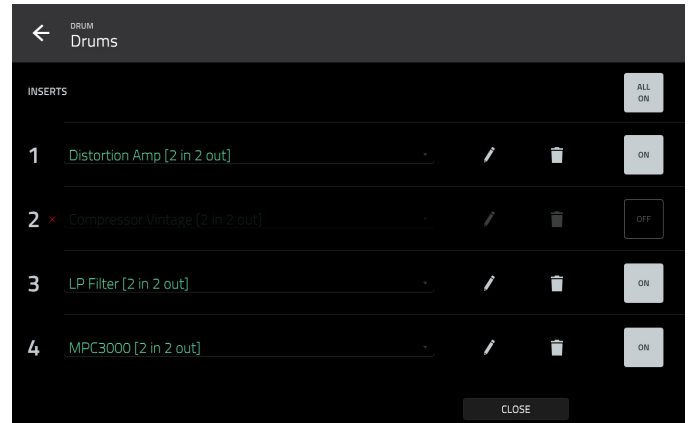
To select an effect, use the field for each insert slot. A window (described below) will appear.

To edit the parameters of a loaded effect, tap the **pencil icon** next to the insert slot.

To clear the insert slot, tap the **trash can icon** next to it.

To enable or disable an effect slot, tap the **On/Off** button next to it.

To disable all four effect slots, tap the **All On/All Off** button in the upper-right corner. Tap it again to reactivate the previously active effects.



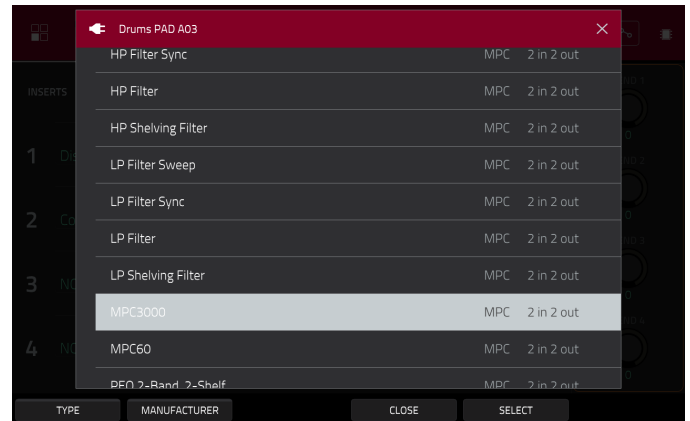
When selecting an effect, you will see this window:

To move through the list, swipe up or down. Alternatively, use the **data dial** or **-/+** buttons.

To sort or unsort the effects by type or manufacturer, tap **Type** or **Manufacturer** in the lower-left corner.

To load an effect, double-tap it. Alternatively, tap **Select**, or press the **center cursor** or **Enter**.

To cancel, tap **Close** or anywhere outside the list.



When you edit an effect, you will see this window:

To adjust a parameter, tap and drag its slider. Alternatively, use the **data dial** or **-/+** buttons. To make finer adjustments, double-tap the pad and adjust the larger version of the slider that appears.

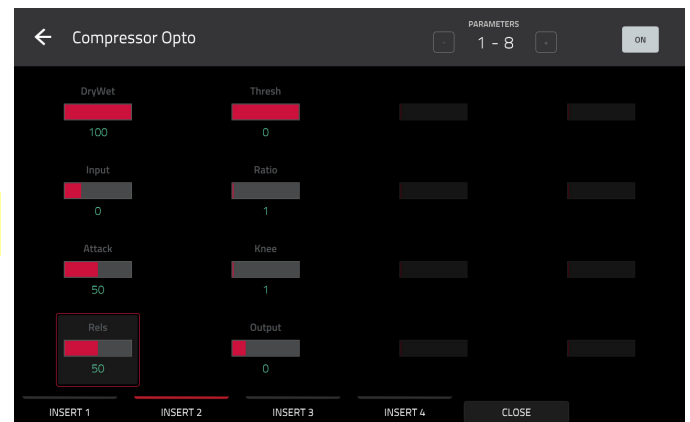
**Tip:** Turn the **Q-Link knobs** to quickly adjust the corresponding four parameters.

To select another page of parameters, tap the **Parameters -/+** buttons at the top of the touchscreen.

To enable or disable the effect, tap the **On/Off** button in the upper-right corner.

To edit parameters for another insert effect on the same pad, program, etc., tap a different **Insert** tab at the bottom of the touchscreen to select it.

To close the window, tap **Close** or the upper part of the touchscreen.



## Insert Effects

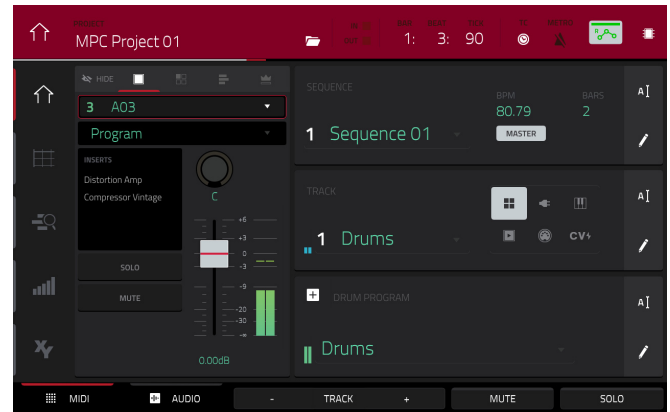
### Pads

You can load up to four insert effects to each pad. You can do this in Main Mode, the Pad Mixer, or Program Edit Mode.

**Tip:** When using pad insert effects, they will be applied to the selected pad only. This means that you could apply unique combinations of effects to each pad within a program. If you want to apply the same effect to all pads, do this with a program insert effect (see [Insert Effects > Programs](#)).

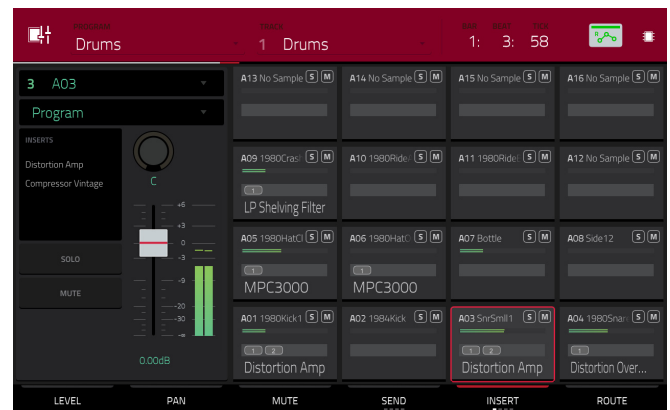
#### To load a pad insert effect in Main Mode:

1. When the **MIDI** tab is selected (in the lower-left corner), use the **Track** field to select the track that uses the program with the desired pad—the program it uses will be selected automatically.
2. If the channel strip is not already shown, tap the small **eye icon** below the **Project** field to show it.
3. Tap the **single-pad icon** at the top of the channel strip. The channel strip will now show settings for the current pad.
4. Press the desired pad to select it. Alternatively, use the **Pad** field at the top of the channel strip.
5. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects.



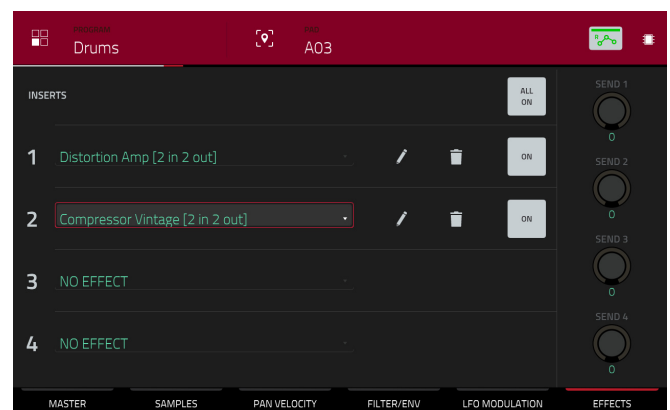
#### To load a pad insert effect in the Pad Mixer:

1. Use the **Program** field at the top of the touchscreen to select the desired program. Alternatively, use the **Track** field at the top of the touchscreen to select the desired track—the program it uses will be selected automatically.
2. Press the desired pad to select it, or tap it in the touchscreen. Alternatively, double-tap the **Pad** field below the **Program** field.
3. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects. Alternatively, tap the **Insert** tab at the bottom of the touchscreen (tap it multiple times to select a different insert slot), and then double-tap the desired pad in the touchscreen. You could also use the **data dial** or **-/+** buttons to select an effect immediately.



#### To load a pad insert effect in Program Edit Mode:

1. While using the desired program, press the desired pad to select it.
2. Tap the **Effects** tab in the lower-right corner, and use it to load or edit effects.



## Keygroups

You can load up to four insert effects to each keygroup. You can do this in Main Mode, the Pad Mixer, or Program Edit Mode.

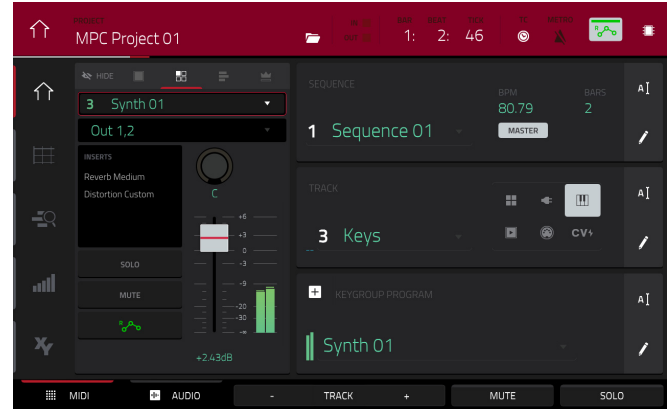
**Important:** When using keygroup insert effects, they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

### To load a keygroup insert effect in Main Mode:

1. When the **MIDI** tab is selected (in the lower-left corner), use the **Track** field to select the track that uses the program with the desired pad—the program it uses will be selected automatically.
2. If the channel strip is not already shown, tap the small **eye icon** below the **Project** field to show it.
3. Tap the **single-pad icon** at the top of the channel strip. The channel strip will now show settings for the current keygroup.
4. Press a pad to select its corresponding keygroup, or tap it in the touchscreen. Alternatively, use the **Keygroup** field at the top of the channel strip.

**Important:** Remember that the effect will be applied to that keygroup only.

5. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects.

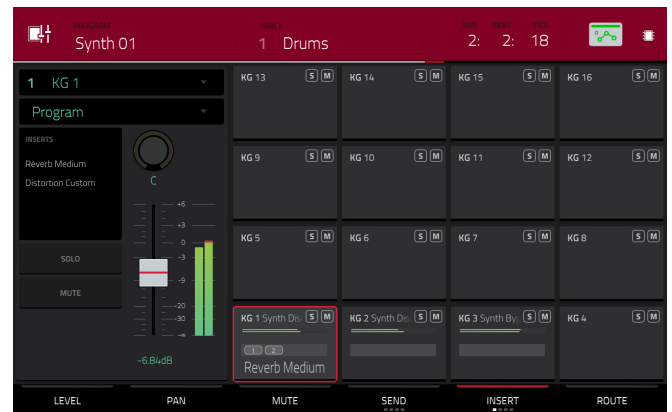


### To load a keygroup insert effect in the Pad Mixer:

1. Use the **Program** field at the top of the touchscreen to select the desired program. Alternatively, use the **Track** field at the top of the touchscreen to select the desired track—the program it uses will be selected automatically.
2. Press a pad to select its corresponding keygroup, or tap it in the touchscreen. Alternatively, use the **Keygroup** field below the **Program** field.

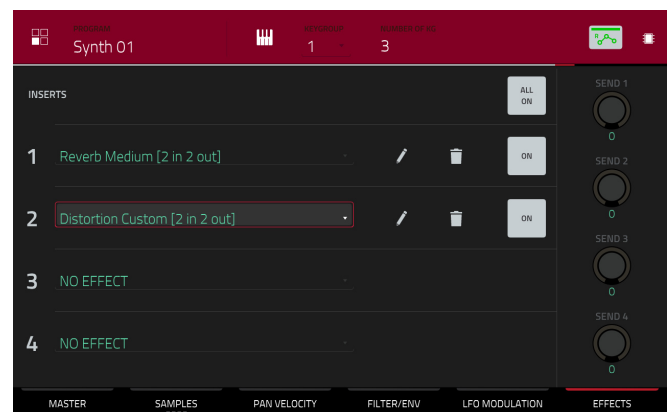
**Important:** Remember that the effect will be applied to that keygroup only.

3. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects. Alternatively, double-tap the desired pad in the touchscreen. You could also select one of the four **Insert** tabs at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons to select an effect immediately.



### To load a keygroup insert effect in Program Edit Mode:

1. While using the desired program, press the desired pad to select its keygroup. Alternatively, use the **Keygroup** field at the top of the touchscreen.
2. Tap the **Effects** tab in the lower-right corner, and use it to load or edit effects.



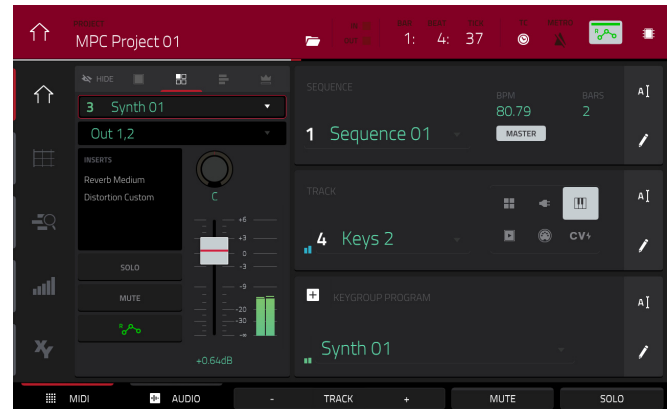
## Programs

You can load up to four insert effects to each program. You can do this in Main Mode, XYFX Mode, and the Channel Mixer.

**Note:** In XYFX Mode, the effects act like a single insert effect on that program. In fact, **XYFX** is the name of the insert effect that is loaded when use this mode.

### To load a program insert effect in Main Mode:

1. When the **MIDI** tab is selected (in the lower-left corner), use the **Track** field to select the track that uses the program with the desired pad—the program it uses will be selected automatically.
2. If the channel strip is not already shown, tap the small **eye icon** below the **Project** field to show it.
3. Tap the **four-pads icon** at the top of the channel strip. The channel strip will now show settings for the current program.
4. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects.



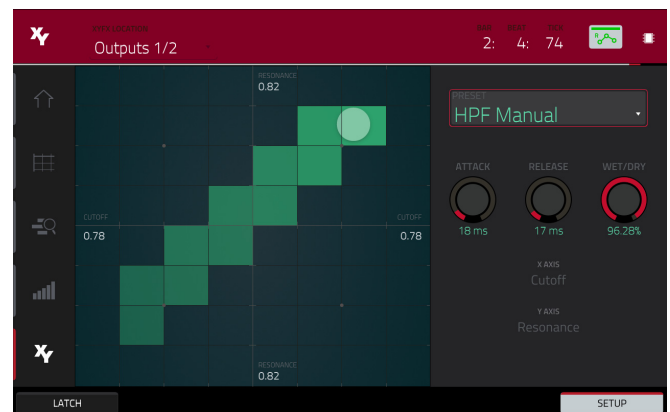
### To load XYFX for a program in XYFX Mode:

1. Select the desired program in another mode, and then enter XYFX Mode.
2. If you have not yet used XYFX Mode for this program, tap **Insert XYFX** on the touchscreen to load it and show the XY pad.

**Note:** If you already have four insert effects loaded, you will need to clear one of the insert effect slots before doing this.

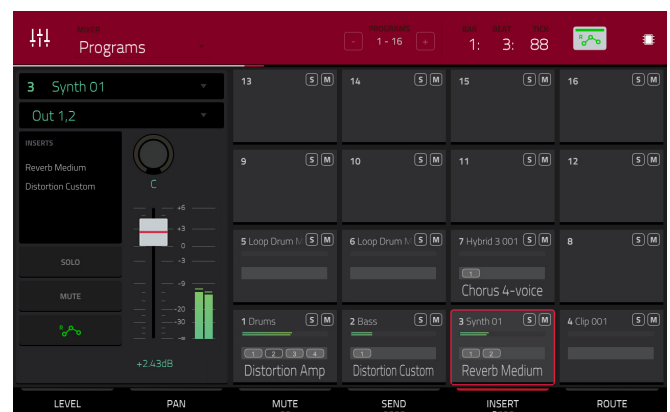
If you have already used XYFX Mode for this program, the XY pad will appear.

3. If the **Setup** panel is not shown, tap **Setup** in the lower-right corner to show it.
4. Use the **Preset** field to load an effect. Use the controls below the **Preset** field to edit the effect.



### To load a program insert effect in the Channel Mixer:

1. Set the **Mixer** field in the upper-left corner to **Programs**.
2. In the touchscreen, tap the pad that corresponds to the desired program. Alternatively, double-tap the **Program** field below the **Mixer** field and tap the desired program.
3. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects. Alternatively, tap the **Insert** tab at the bottom of the touchscreen (tap it multiple times to select a different insert slot), and then double-tap the desired pad in the touchscreen. You could also use the **data dial** or **-/+** buttons to select an effect immediately.

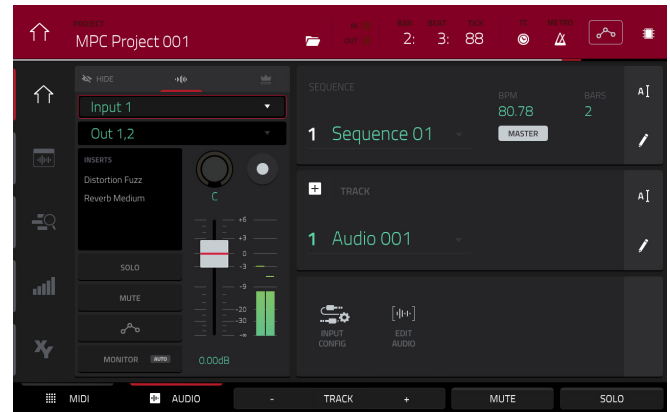


## Audio Tracks

You can load up to four insert effects to each audio track. You can do this in Main Mode and the Channel Mixer.

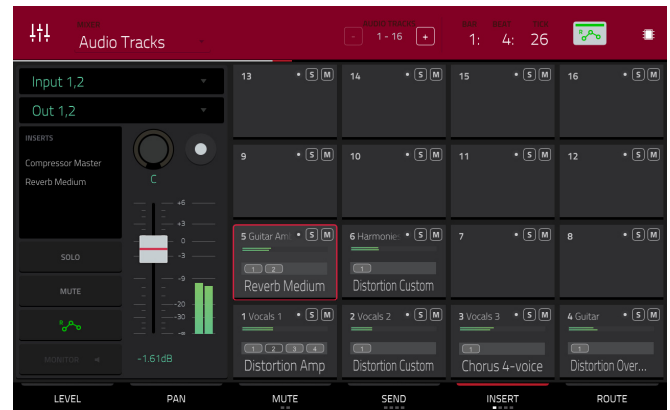
### To load an audio track insert effect in Main Mode:

1. When the **Audio** tab is selected (in the lower-left corner), use the **Track** field to select the audio track.
2. If the channel strip is not already shown, tap the small **eye icon** below the **Project** field to show it.
3. Tap the **waveform icon** at the top of the channel strip. The channel strip will now show settings for the current audio track.
4. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects.



### To load an audio track insert effect in the Channel Mixer:

1. Set the **Mixer** field in the upper-left corner to **Audio Tracks**.
2. In the touchscreen, tap the pad that corresponds to the desired audio track.
3. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects. Alternatively, tap the **Insert** tab at the bottom of the touchscreen (tap it multiple times to select a different insert slot), and then double-tap the desired pad in the touchscreen. You could also use the **data dial** or **-/+** buttons to select an effect immediately.



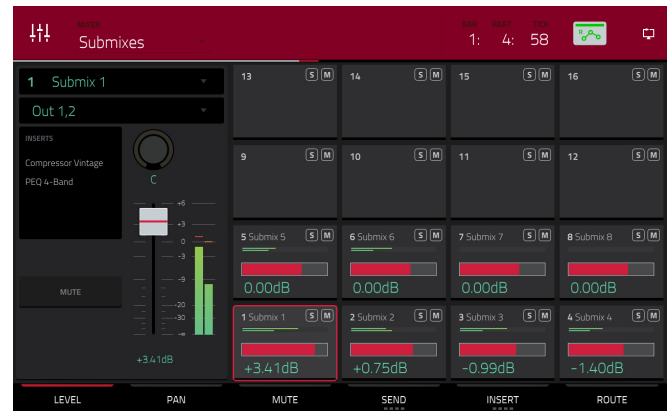
## Submixes

You can load up to four insert effects to each submix. You can do this in the Channel Mixer only.

**Important:** Submixes are available only while using MPC X in Controller Mode with the desktop version of the MPC software.

### To load a submix insert effect:

1. Set the **Mixer** field in the upper-left corner to **Submixes**.
2. In the touchscreen, tap the pad that corresponds to the desired program. Alternatively, double-tap the **Submix** field below the **Mixer** field and tap the desired program.
3. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects. Alternatively, tap the **Insert** tab at the bottom of the touchscreen (tap it multiple times to select a different insert slot), and then double-tap the desired pad in the touchscreen. You could also use the **data dial** or **-/+** buttons to select an effect immediately.



## Masters

You can load up to four insert effects to each master output (a stereo pair of channels: **Outputs 1/2**, **Outputs 3/4**, etc.). You can do this in Main Mode or the Channel Mixer.

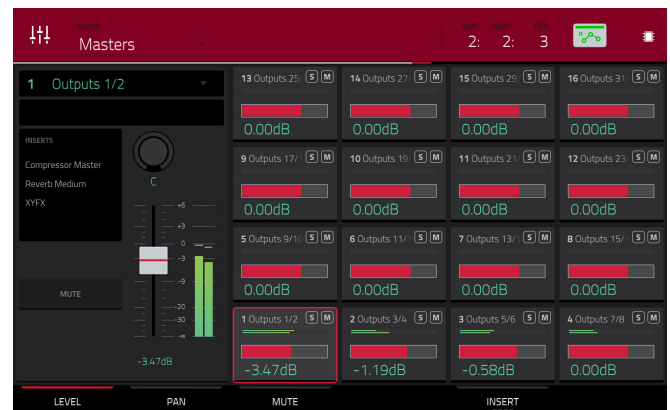
### To load a master insert effect in Main Mode:

1. If the channel strip is not already shown, tap the small **eye icon** below the **Project** field to show it.
2. Tap the **crown icon** at the top of the channel strip. The channel strip will now show settings for the current master output.
3. Use the **Outputs** field at the top of the channel strip to select the desired master output (**Outputs 1/2**, **Outputs 3/4**, etc.).
4. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects.



### To load a master insert effect in the Channel Mixer:

1. Set the **Mixer** field in the upper-left corner to **Masters**.
2. In the touchscreen, tap the pad that corresponds to the desired master output (**Outputs 1/2**, **Outputs 3/4**, etc.). Alternatively, double-tap the **Outputs** field below the **Mixer** field.
3. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects. Alternatively, tap the **Insert** tab at the bottom of the touchscreen (tap it multiple times to select a different insert slot), and then double-tap the desired pad in the touchscreen. You could also use the **data dial** or **-/+** buttons to select an effect immediately.





## Send/Return Effects

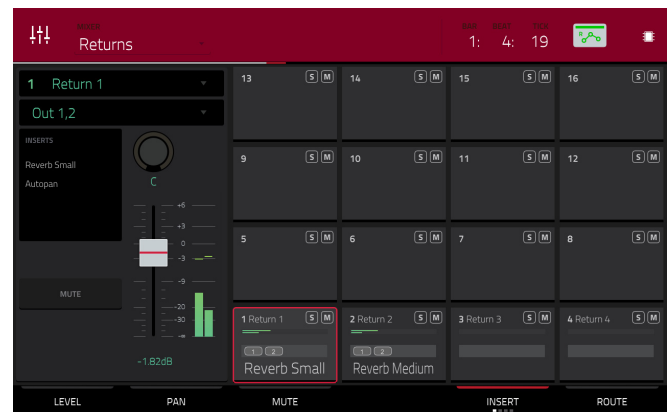
Send/return effects work in the following way:

1. A **pad, keygroup, audio track, program, or submix** sends its audio to a **return** at a designated **send level**.
2. That audio is processed by the effects on the return. Each return can have up to **four insert effects** loaded and activated.
3. The processed audio is sent back to its pad, keygroup, program, or submix at a designated **return level**.

You can load send/return effects and set return levels only in the Channel Mixer, described below. The rest of this section describes the different ways to set the desired send levels for pads, keygroups, programs, or submixes.

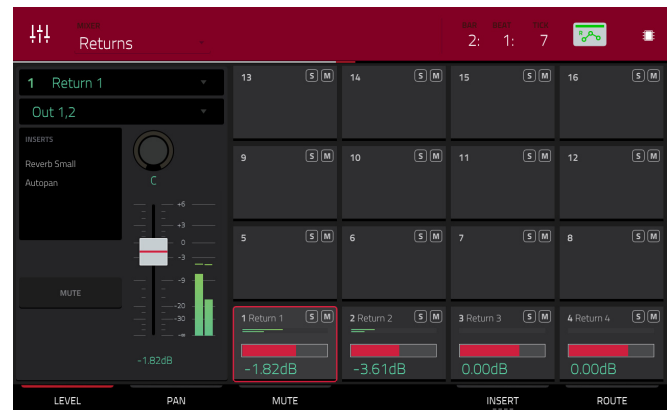
### To load a send/return effect to a return:

1. In the Channel Mixer, set the **Mixer** field in the upper-left corner to **Returns**.
2. In the touchscreen, tap the pad that corresponds to the desired return. Alternatively, double-tap the **Return** field below the **Mixer** field.
3. Tap the area under **Inserts**, and then use the screen that appears to load or edit effects. Alternatively, tap the **Insert** tab at the bottom of the touchscreen (tap it multiple times to select a different insert slot), and then double-tap the desired pad in the touchscreen. You could also use the **data dial** or **-/+** buttons to select an effect immediately.



### To set the return level:

1. In the Channel Mixer, set the **Mixer** field in the upper-left corner to **Returns**.
2. Tap the **Level** tab in the lower-left corner.
3. In the touchscreen, tap the pad that corresponds to the desired return. Alternatively, double-tap the **Return** field below the **Mixer** field.
4. **To adjust the level of the currently selected return**, use the **data dial** or **-/+** buttons. Alternatively, use the **level slider** in the channel strip, or turn the corresponding **Q-Link knob**. **To make finer adjustments**, double-tap the pad and adjust the larger version of the slider that appears.

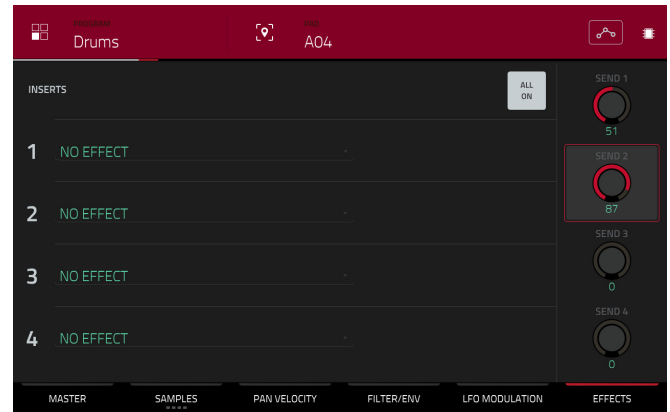


## Pads

You can set the send levels for pads in Program Edit Mode or the Pad Mixer.

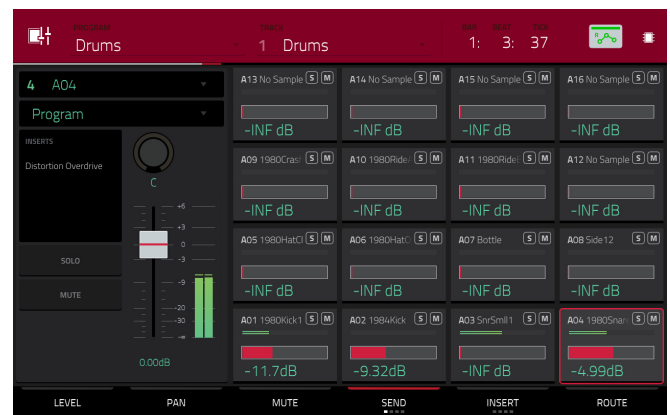
### To set the send levels for a pad in Program Edit Mode:

1. While editing the desired program in Program Edit Mode, press the desired pad to select it.
2. Tap the **Effects** tab in the lower-right corner.
3. Use the **Send** knobs to set the send level for each return.



### To set the send levels for a pad in the Pad Mixer:

1. Use the **Program** field at the top of the touchscreen to select the desired program. Alternatively, use the **Track** field at the top of the touchscreen to select the desired track—the program it uses will be selected automatically.
2. Tap the **Send** tab at the bottom of the touchscreen (tap it multiple times to select a different send level).
3. Press the desired pad to select it, or tap it in the touchscreen. Alternatively, double-tap the **Pad** field below the **Program** field.
4. **To set the send level**, use the **data dial** or **-/+** buttons. **To make finer adjustments**, double-tap the pad and adjust the larger version of the slider that appears.

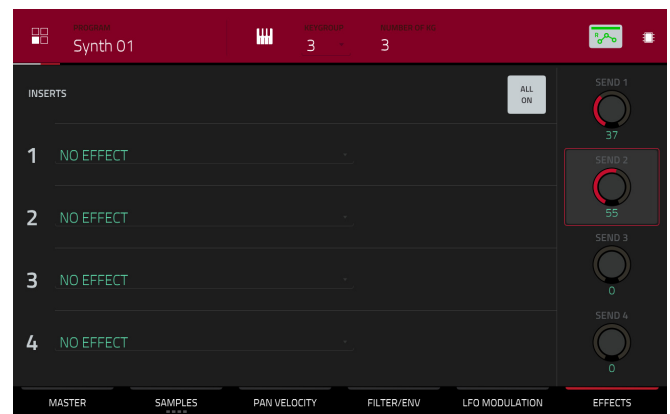


## Keygroups

You can set the send levels for keygroups in Program Edit Mode or the Pad Mixer.

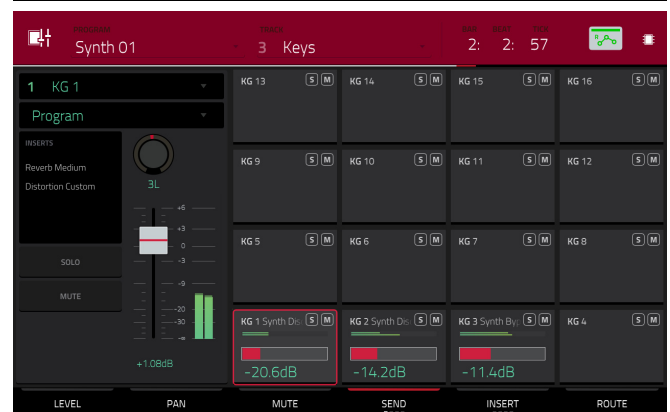
### To set the send levels for a keygroup in Program Edit Mode:

1. While using the desired program, press the desired pad to select its keygroup. Alternatively, use the **Keygroup** field at the top of the touchscreen.
2. Tap the **Effects** tab in the lower-right corner.
3. Use the **Send** knobs to set the send level for each return.



### To set the send levels for a keygroup in the Pad Mixer:

1. Use the **Program** field at the top of the touchscreen to select the desired program. Alternatively, use the **Track** field at the top of the touchscreen to select the desired track—the program it uses will be selected automatically.
2. Tap the **Send** tab at the bottom of the touchscreen (tap it multiple times to select a different send level).
3. Press the desired pad to select its corresponding keygroup, or tap it in the touchscreen. Alternatively, double-tap the **Keygroup** field below the **Program** field.
4. **To set the send level**, use the **data dial** or **-/+** buttons. **To make finer adjustments**, double-tap the pad and adjust the larger version of the slider that appears.



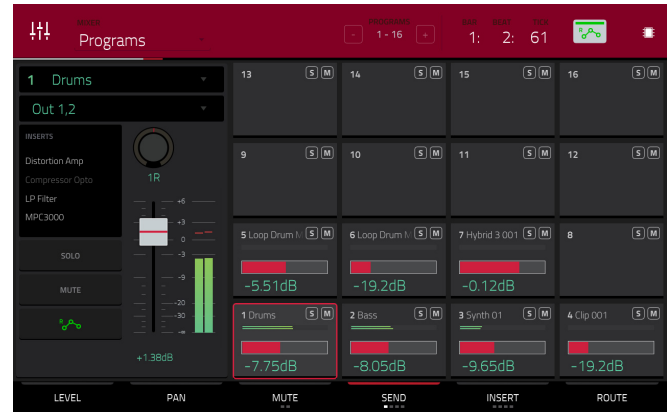


## Programs

You can set the send levels for programs in the Channel Mixer only.

### To set the send levels for a program:

1. In the Channel Mixer, set the **Mixer** field in the upper-left corner to **Programs**.
2. Tap the **Send** tab at the bottom of the touchscreen (tap it multiple times to select a different send level).
3. In the touchscreen, tap the pad that corresponds to the desired program. Alternatively, double-tap the **Program** field below the **Mixer** field.
4. **To set the send level**, use the **data dial** or **-/+** buttons. **To make finer adjustments**, double-tap the pad and adjust the larger version of the slider that appears.



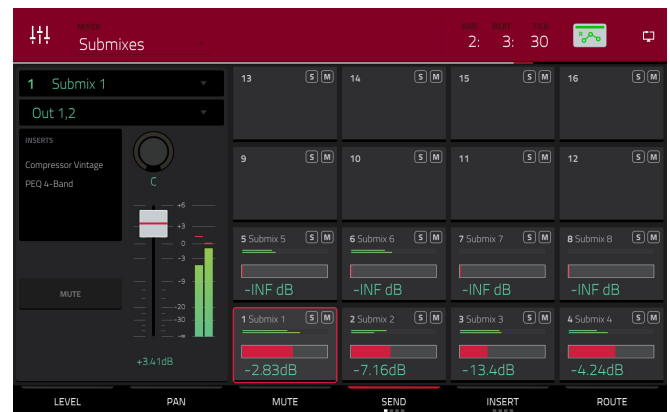
## Submixes

You can set the send levels for submixes in the Channel Mixer only.

**Important:** Submixes are available only while using MPC X in Controller Mode with the desktop version of the MPC software.

### To set the send levels for a submix:

1. In the Channel Mixer, set the **Mixer** field in the upper-left corner to **Submixes**.
2. Tap the **Send** tab at the bottom of the touchscreen (tap it multiple times to select a different send level).
3. In the touchscreen, tap the pad that corresponds to the desired submix. Alternatively, double-tap the **Submix** field below the **Mixer** field.
4. **To set the send level**, use the **data dial** or **-/+** buttons. **To make finer adjustments**, double-tap the pad and adjust the larger version of the slider that appears.



## Audio Mixdown

The Audio Mixdown screen lets you render and export either the current sequence or song as an audio file. In Song Mode, this will export the entire song. In Main Mode, this will export the current sequence only.

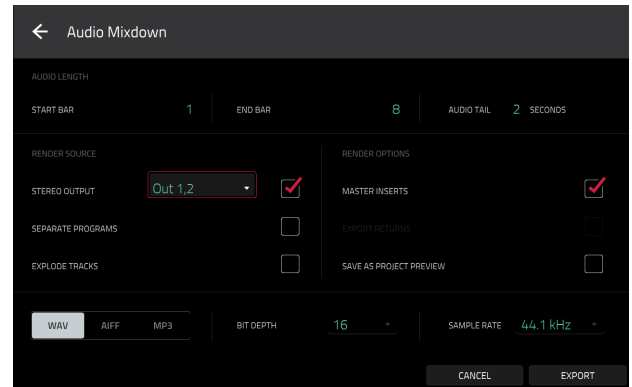
**To open the Audio Mixdown screen in Song Mode**, tap **Export** at the bottom edge of the touchscreen.

**To open the Audio Mixdown screen in Main Mode**, tap the **Project** field in the upper-left corner of the touchscreen, and then tap **Export**.

### Audio Length

Use the **Start Bar** and **End Bar** fields to define where the resulting audio file will start and end, respectively.

Use the **Audio Tail** field to add extra seconds to the end of the resulting audio file. This is useful if you are using effects or samples whose sounds exceed the defined audio length (e.g., long reverb or delay, one-shot samples with long decays, etc.). We recommend using an audio tail of at least a couple of seconds.



### Render Source

Check **Stereo Output** and use the adjacent field to select a pair of outputs (**Out 1,2–7,8** in Standalone Mode, **Out 1,2–31,32** in Controller Mode). The mixdown will be taken from these outputs.

Check **Separate Programs** to create a mixdown of each program used in the sequence or song.

Check **Explode Tracks** to create a mixdown of each track used in the sequence (you cannot use this option for an entire song).

**Important:** Each pad or keygroup must have their output routed to **Program** to be included in the mixdown. This is the typical (and default) setting. See [Modes > Pad Mixer > Routing](#) to learn about this.

### Render Options

If your **Render Source** is set to **Stereo Output**, check **Master Inserts** to include master insert effects in the mixdown.

If your **Render Source** is set to **Separate Programs** or **Explode Tracks**, check **Export Returns** to export the return channel signals as separate files.

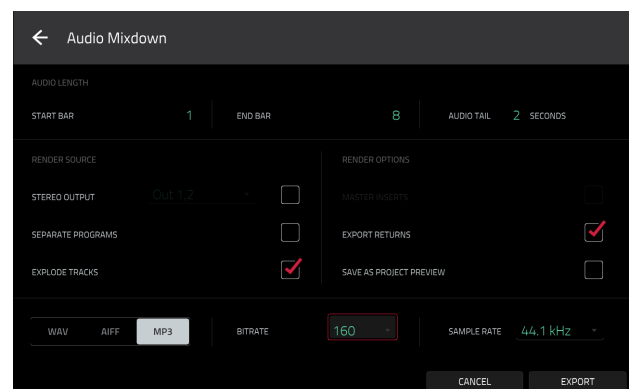
If your **Render Source** is set to **Stereo Output**, tap **Save as Project Preview** to save the sequence or song as a project preview file (which you can play for reference in the Browser). If you check this box, **Stereo Output** will automatically be checked, as well.

### File Formats

Tap **WAV**, **AIFF**, or **MP3** to select the file format of the mixdown.

For **WAV** and **AIFF** files, use the **Bit Depth** field to select a bit depth of **8**, **16**, or **24** bits, or **32** bits, floating point (**32 F**). For **MP3** files, you can select a **Bitrate** of **128**, **160**, **192**, or **320** kbps.

Use the **Sample Rate** field to select a sample rate of **44.1 kHz**, **48 kHz**, **88.2 kHz**, or **96 kHz**. In most cases, we recommend selecting **44.1 kHz**.



Tap **Export** to enter the **Save** screen where you can select a name and location to save your audio mixdown.

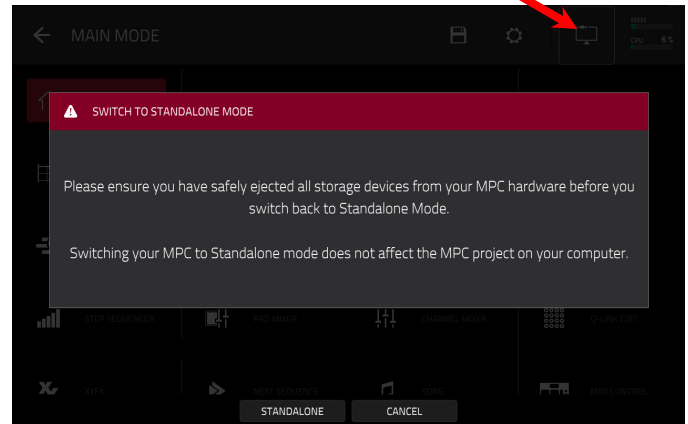
Tap **Cancel** or the **←** icon in the upper-left corner to return to the previous screen.

## Standalone vs. Controller Mode

MPC X can function in two ways: **Standalone Mode** and **Controller Mode**.

To enter **Standalone Mode**, do one of the following:

- If MPC X is **not** connected to a computer, simply press the **power switch** to power it on.
- If MPC X is connected to your computer and you want to keep your MPC software open, press **Menu** to enter the Menu, and then tap the **monitor/cable icon** in the upper-right corner. When the **Switch to Standalone Mode** window appears, tap **Standalone** to continue. Your project will remain open on your computer, and you can continue to work on it independently from the project shown in your MPC X. (If you tap **Cancel**, you can continue using MPC X in Controller Mode.)
- If MPC X is connected to your computer and you want to close the MPC software, simply close the MPC software on your computer. When **Looking for computer** appears on MPC X's touchscreen, tap **Standalone**. If the **Restart as Standalone** window appears, tap **Yes** to continue. (If you tap **Cancel**, you can reopen your MPC software and continue using MPC X in Controller Mode.)



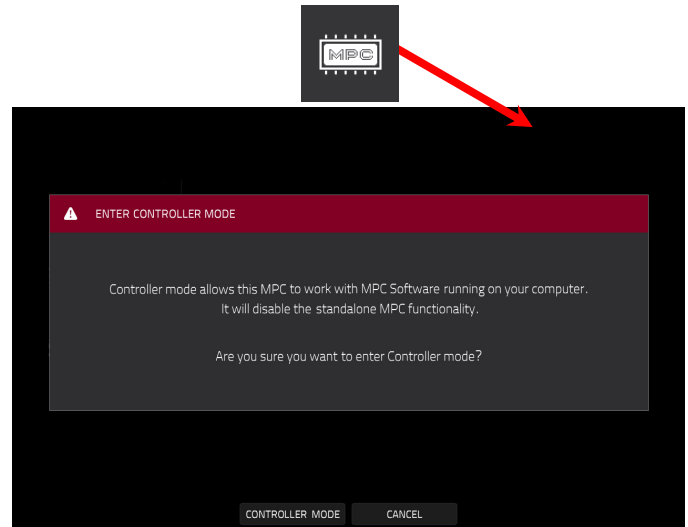
In Standalone Mode:

- An **MPC chip icon** will appear in the upper-right corner.
- MPC X is **not** communicating with a computer over a USB connection.
- Any files (projects, samples, etc.) that you save or load are in MPC X's internal hard drive or a connected USB drive or SD card.
- Plugin programs are disabled.



**To enter Controller Mode:**

1. Make sure MPC X's **USB-B Port** is connected to your computer.
2. On your computer, open the MPC software.
3. If MPC X is powered off, press the **power switch** to power it on.
4. If MPC X is currently in Standalone Mode, press **Menu** to enter the Menu, and then tap the **MPC chip icon** in the upper-right corner. When the **Enter Controller Mode** window appears, tap **Controller Mode** to continue. (If you tap **Cancel**, you can continue using MPC X in Standalone Mode.) **Looking for computer** may appear briefly in the touchscreen before MPC X recognizes the USB connection as a controller.

**In Controller Mode:**

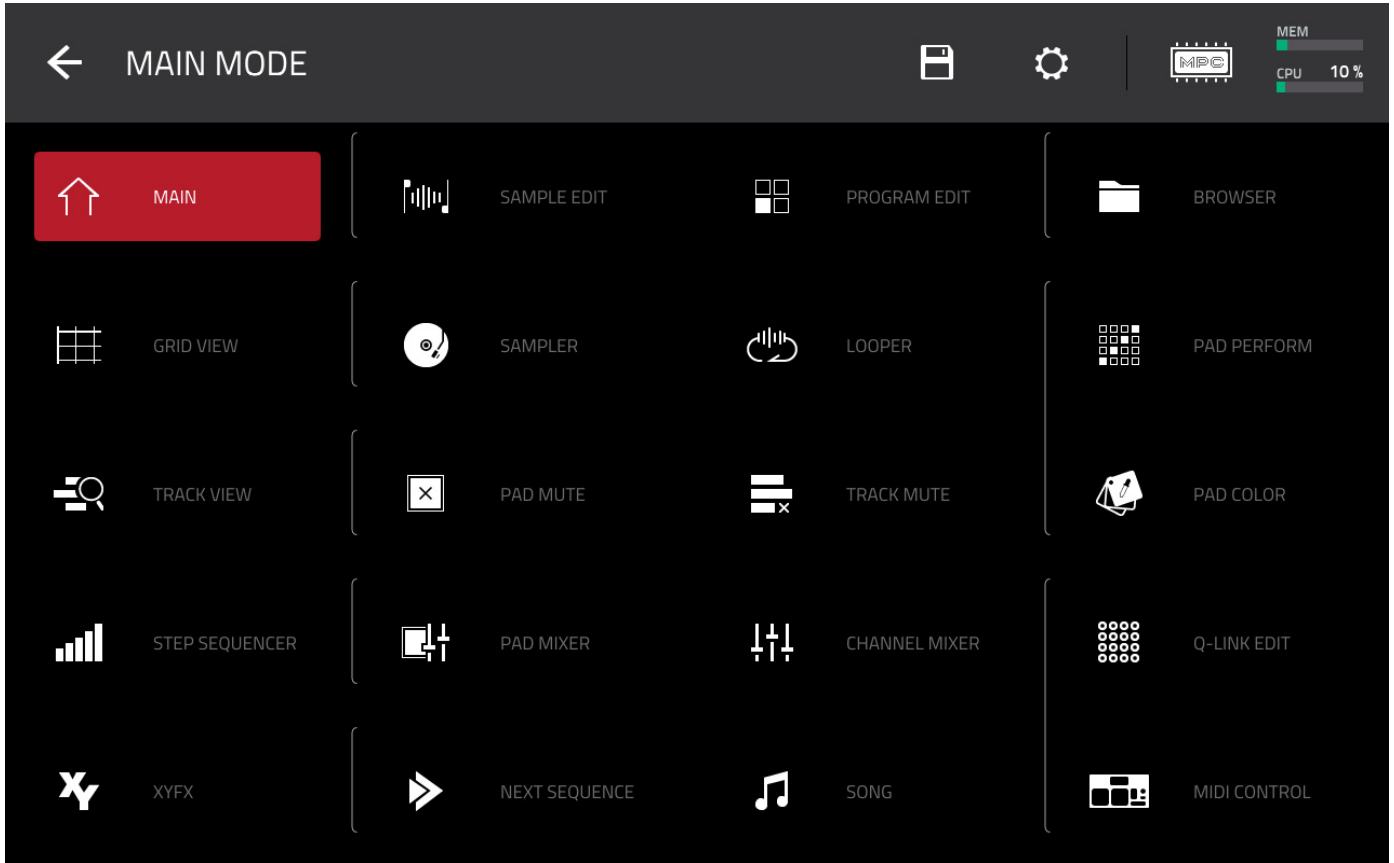
- A **monitor/cable icon** will appear in the upper-right corner.
- MPC X is communicating with a computer over a USB connection.
- You can save or load files (projects, samples, etc.) to or from your computer as well as MPC X's internal hard drive or a connected USB drive or SD card.
- Plugin programs are enabled. Remember to specify the disk directory where your plugins are located. This can be done in the software's **Preferences** (in the **Edit** Menu). See the user guide in the MPC software to learn more: click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.
- The touchscreen on your MPC X reflects what it is controlling in the software, but due to space and character limitations, the layout in the touchscreen is different (e.g., parameter names may be abbreviated, the layout may be different or spread across multiple tabs, etc.).



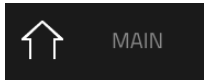
## Modes

MPC X has a Menu page that lets you select any one of 20 modes. This chapter describes the various features and functions of each one.

Click a button below to skip directly to that chapter.



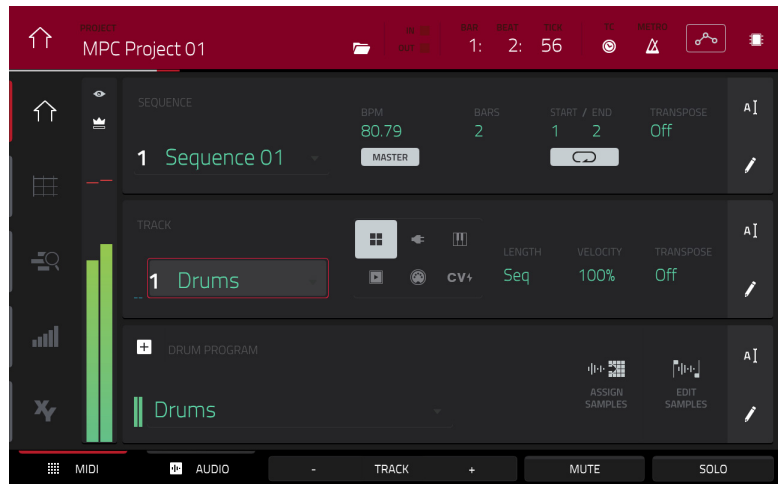
## Main Mode



Main Mode gives you an overview of the most-used functions.

To enter Main Mode, do one of the following:

- Press **Main**.
- Press **Menu**, and then tap **Main**.



The top of the touchscreen shows the project name and timing information.



The **Project** field shows the name of the current project.

To view the **Project window**, tap the **Project** field. The Project window will appear, showing a list of available programs, sequences, and samples in the project.

In the **Project** window, in addition to typical functions you can perform in lists, you can do any of the following:

**To move through a list**, swipe up or down.

**To expand or collapse the list of programs or sequences**, tap the arrow (< or >) to its left.

**To select a program, sequence, or sample**, tap it.

**To immediately select a sample and enter Sample Edit Mode**, double-tap it.

**To save the project**, tap **Save**.

**To save the project with another name**, tap **Save As**. Use the **Save** window that appears to save the project.

**To return to the previous screen**, tap the **X** in the upper-right corner or anywhere outside the window.

**To delete samples from the project** (to create more free RAM space for sampling time, audio recording, etc.), tap **Purge**. In the screen that appears, tap **Unused Samples** to delete all unused samples from the project, tap **All Samples** to delete all samples from the project, or tap **Cancel** to return to the previous screen.

**To export the current sequence**, tap **Export**. Use the **Audio Mixdown** screen that appears to export a song (see [General Features > Audio Mixdown](#) to learn about the settings in this window). To export the song instead, see the [Song Mode](#) chapter.

The **In** and **Out** boxes indicate MPC X is receiving or sending (respectively) MIDI messages from or to your computer.

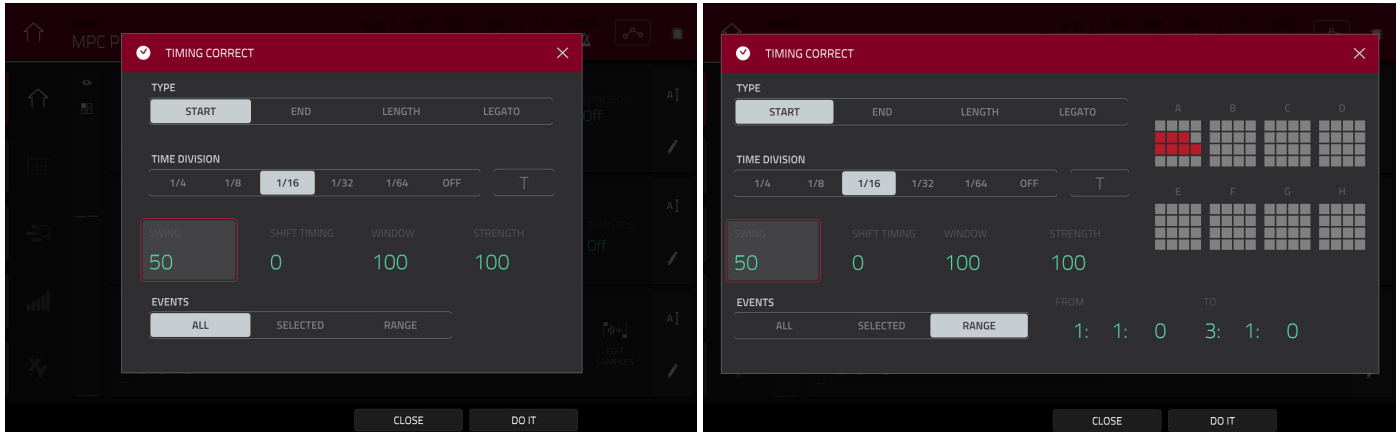
The time counter at the top of the touchscreen the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

The **Timing Correct** window contains various settings to help quantize the note events in your sequence.

To open the **Timing Correct settings**, tap the **TC/clock icon** at the top of the touchscreen.

To apply the settings you selected, tap **Do It**.

To cancel and return to the previous screen, tap **Close**.



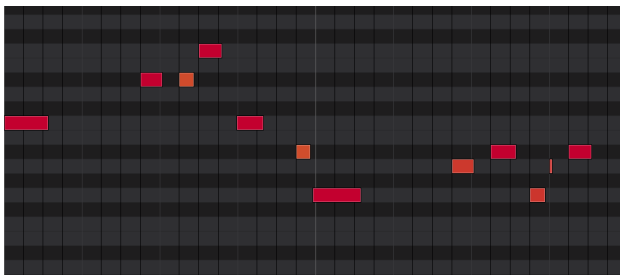
Use the **Type** selector to set how timing corrections are applied.

**Start:** The start points of note events will be extended or shortened to align with the closest time division marker in the grid. The start points will remain untouched.

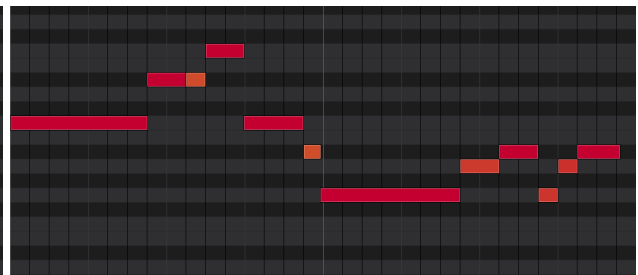
**End:** The end points of note events will be extended or shortened to align with the closest time division marker in the grid. The start points will remain untouched.

**Length:** The end points of note events will be extended or shortened so that each event's length is a multiple of the time division, regardless of where it is in the grid. The start points will remain untouched.

**Legato:** The end points of note events will be extended or shortened to create a long, unbroken phrase from the first note event's start point to the last note event's end point. Each note event will sustain until another note event starts. If multiple note events start at the same time (and are not the last note events), their lengths will become identical. Selecting **Legato** disables all other options in this window.



Without legato applied.



With legato applied.

Use the **Time Division** selector to set the quantization value. Note events will “snap” to these time divisions on the grid. The **T** indicates a triplet-based value.

Alternatively, press and hold **Note Repeat** and use the six buttons at the bottom of the touchscreen.

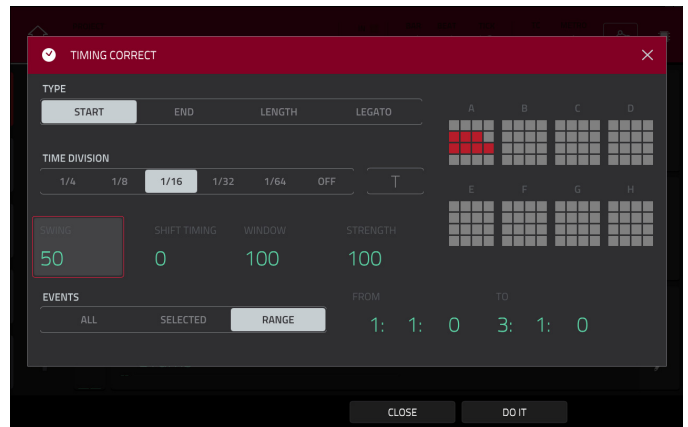
Use the **Swing** field to set the amount of swing from **50%** to **75%**. Swing lets you “shuffle” your beats—from subtle to extreme.

Use the **Shift Timing** field to shift all note events by clock ticks.

Use the **Window** field to set how many notes around a quantize value will be quantized. Any notes outside this range will not be quantized; notes inside will.

Use the **Strength** field to set how strictly notes will be quantized (i.e., shifted toward the quantize value). Lower values move notes a little bit towards the closest quantize value, resulting in a less mechanical feel than a strict quantization (a higher value).

Use the **Events** selector to set the target range for the time correction. You can apply the time correction to **All** note events or to just the **Selected** ones. When **Range** is selected, you can define the locations (**From** and **To**) as well as the pads or keys that will be quantized.



The **Click/Metro** menu contains all settings regarding the metronome (click track).

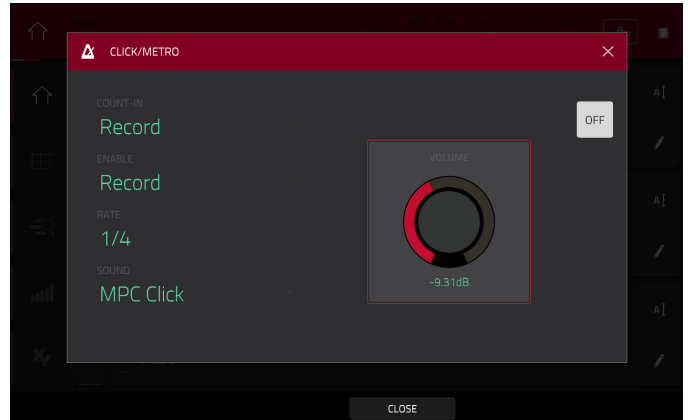
To open the metronome settings, tap the **Metro/metronome icon** at the top of the touchscreen.

Use the **Count-In** field to set if/when the metronome counts before recording.

**Off** disables the metronome pre-count.

**Record** enables the pre-count during recording only.

**Record + Play** enables pre-count in both Record and Playback Modes.



Use the **Enable** field to set if/when the metronome is enabled.

**Off** disables the metronome.

**Play** enables the metronome sound during playback only.

**Record** enables the metronome sound during recording only.

**Record + Play** enables the metronome to happen in both Record and Playback Modes.

Use the **Rate** field to select the metronome click's time division: **1/4**, **1/4T**, **1/8**, **1/8T**, **1/16**, **1/16T**, **1/32** or **1/32T**. **T** indicates a triplet-based time division.

Use the **Sound** field to select the sound that you want to hear for the metronome: **Sidestick 1**, **Sidestick 2**, **Clap**, **Metroclick**, **Shake**, **Tambourine**, or **MPC Click**.

Use the **Volume** knob to set the volume of your metronome click.

Tap the **On/Off** button to enable or disable the metronome.

The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.



In Main Mode, these are the buttons at the bottom of the touchscreen:

**MIDI:** Tap this button to view only MIDI tracks in the **Track** section.

**Audio:** Tap this button to view only audio tracks in the **Track** section.

**Track +/-:** Tap one of these buttons to switch to the previous or next track, respectively.

**Mute:** Tap this button to mute the current track.

**Solo:** Tap this button to solo the current track.

The left edge contains icons to quickly enter one of five modes. Using this strip of icons, you can easily jump between them:

**To enter Main Mode,** tap the **house icon**.

**To enter Grid View,** tap the **grid icon**.

**To enter Audio Edit Mode,** tap the **waveform-and-box icon**.

**To enter the Track View,** tap the **bars-and-magnifying-glass icon**.

**To enter the Step Sequencer,** tap the **vertical-bars icon**.

**To enter XYFX Mode,** tap the **XY icon**.

There are also two small icons to the right of these that control the channel strip.

**To show or hide the channel strip,** tap the **eye icon**.

The icon below the eye icon indicates the type of channel strip (see next description).



The channel strip contains some important settings for the current pad, program, track, or master output, depending on the currently selected icon:

**To view the pad channel strip**, tap the **single-pad icon**.

**To view the program channel strip**, tap the **four-squares icon**.

**To view the track channel strip**, tap the **bars icon** (when the **MIDI** tab is selected) or the **waveform icon** (when the **Audio** tab is selected).

**To view the master channel strip**, tap the **crown icon**.

When viewing the **pad channel strip** while using a drum program, keygroup program, or clip program:

The first field shows the current pad number. Press a pad or tap the field to select a different pad.

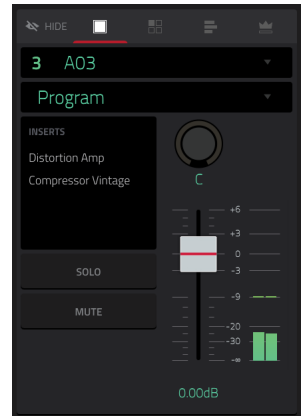
**Tip:** This is useful for mixing your pads without having to enter the Pad Mixer.

The second field shows where the pad is routed (which you can change). Usually, this is set to **Program**.

The **Inserts** field shows any enabled or disabled effects for that pad. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Solo** or **Mute** to solo or mute the pad (respectively).

Adjust the **pan knob** or **level slider** to change the panning or level of the pad. The **green** level meter next to the slider shows the pad's current volume level in **dB**.



When viewing the **program channel strip** while using a drum program, keygroup program, clip program, or plugin program:

The first field shows the current program number and name (which you can change).

The second field shows where the program is routed (which you can change).

The **Inserts** field shows any enabled or disabled effects for that program. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Solo** or **Mute** to solo or mute the program (respectively). Alternatively, press **Solo** or **Mute** under the LED meters.

**To change the program's automation**, tap the **program automation button** or press **Read/Write** to cycle through its three states:

When **off**, the program will ignore automation data. If you have already recorded or entered automation, this will switch between **Read (R)** and **Write (W)** only, but you can override this and turn it off by pressing and holding **Shift** while tapping the button.

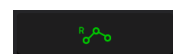
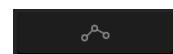
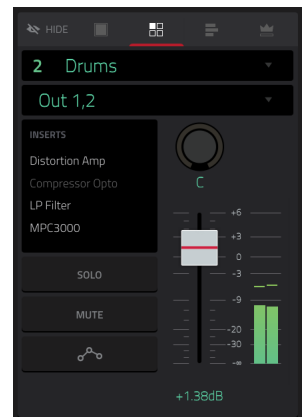
**Important:** If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the program will read automation data but will not record any additional automation over it. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)

When set to **Write (W)**, the program can record automation. (If you have any Q-Link knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording.)

**Tip:** You can quickly set all programs and audio tracks to the same automation by tapping the global automation button in the upper-right corner of the touchscreen. See [General Features > Automation](#) to learn about this.

Adjust the **pan knob** or **level slider** to change the panning or level of the program. The **green** level meter next to the slider shows the program's current volume level in **dB**.



When viewing the **track channel strip** while using a MIDI track:

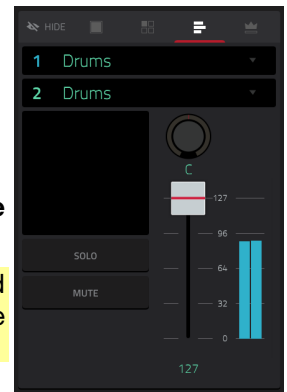
The first field shows the current track (which you can change) and its name.

The second field shows the name of the program the track is using.

Tap **Solo** or **Mute** to solo or mute the track (respectively).

Adjust the **pan knob** or **level slider** to change the panning or level of the track. The **blue** level meter next to the slider shows the track's current velocity level.

**Note:** If the track is using a plugin program, then the slider will send **CC #7 (Volume)** and the knob will send **CC #10 (Pan)** to your instrument plugin. The plugin will then handle these messages as it normally would.



When viewing the **track channel strip** while using an audio track:

The first field defines the input source of the external audio signal (**Input 1,2**, **Input 3,4**, or one of **Input 1-4**).

The second field shows where the track is routed (which you can change; **Out 1,2-7,8** in Standalone Mode, **Out 1,2-31,32** in Controller Mode).

The **Inserts** field shows any enabled or disabled effects for that track. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Solo** or **Mute** to solo or mute the track (respectively). Alternatively, press **Solo** or **Mute** under the LED meters.

**To change the audio track's automation**, press **Read/Write** or tap the **track automation button** to cycle through its three states:

When **off**, the audio track will ignore automation data. If you have already recorded or entered automation, this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while pressing or tapping the button.

**Important:** If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the audio track will read automation data but will not record any additional automation over it. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)

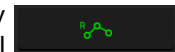
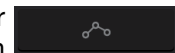
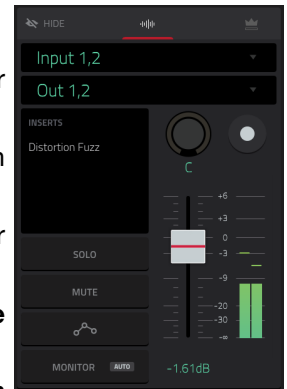
When set to **Write (W)**, the audio track can record automation. (If you have any Q-Link knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording.)

**Tip:** You can quickly set all programs and audio tracks to the same automation by tapping the global automation button in the upper-right corner of the touchscreen. See [General Features > Automation](#) to learn about this.

Adjust the **pan knob** or **level slider** to change the panning or level of the track. The **green** level meter next to the slider shows the track's current volume level in **dB**.

**To record-enable the track**, press **Rec Arm** or tap the **Record Arm** button. When you begin audio recording, the audio signal will be recorded to this track.

**Tip:** You can select multiple tracks in the Track View by pressing and holding **Shift** while tapping the **Arm** button to each track.



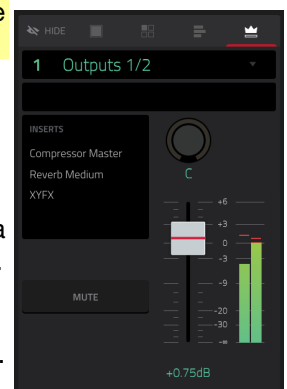
When viewing the **master channel strip**:

The first field shows the current master output as a stereo pair (which you can change).

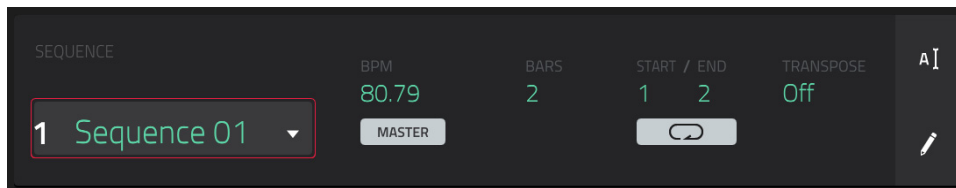
The **Inserts** field shows any enabled or disabled effects for that pair of outputs. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Mute** to mute the master output.

Adjust the **pan knob** or **level slider** to change the panning or level of the master output. The **green** level meter next to the slider shows the outputs' current volume level in **dB**.



The **Sequence** section shows the current sequence and its information.

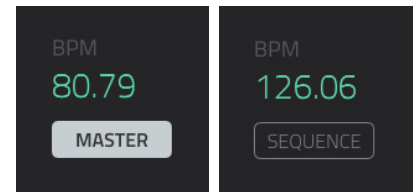


Use **Sequence** field to select a sequence.

**To edit the name of the sequence**, tap the **cursor icon** on the right edge of the section, and use the virtual keyboard that appears.

Use the **BPM** field to adjust the tempo of the sequence.

**To set whether the sequence follows its own tempo (Sequence) or a master tempo (Master)**, tap the **Sequence/Master** button under the **BPM** field. Alternatively, press and hold **Shift+Tap Tempo**.



Use the **Bars** field to adjust the length of the sequence in bars.

The **Loop** button shows whether the sequence (or a part of it) will loop or not.

**To enable or disable looping**, tap the button.

**To set the start point and end point of loop**, tap the **Start** or **End** field (respectively) and then use the **data dial** or the **-/+** buttons, or double-tap the field and use the numeric keyboard that appears.

**Note:** The **Last Bar** value of the **Delete Bars** and **Copy Bars** processes depends on the total length of the sequence.

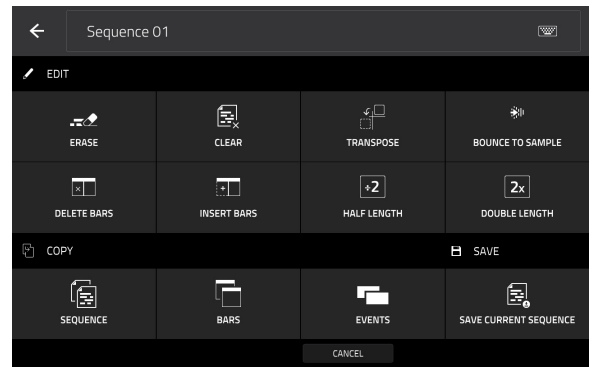
Use the **Transpose** field to set the transposition (in semitones) of the entire sequence.

To edit the sequence, tap the pencil icon on the right edge of the section. The **Sequence Edit/Copy** window will open.

You can use any of these functions as described below.

To return to **Main Mode**, tap **Cancel** or the left arrow (←) in the upper-left corner of the touchscreen. Alternatively, press **Main**.

To edit the name of the sequence, tap the top of the touchscreen and use the virtual keyboard that appears.



The **Erase** function erases all or part of a track in a specific sequence.

To select the sequence you want to erase, use the **Sequence** field.

To select the track you want to erase within the sequence, use the **Track** field.

To set the time range of the sequence you want to erase, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select what types of events you erase, select one of the **Erase** options:

**All** erases all pad events from the designated time range and reset all of its settings.

**Automation** erases only automation from the designated time range.

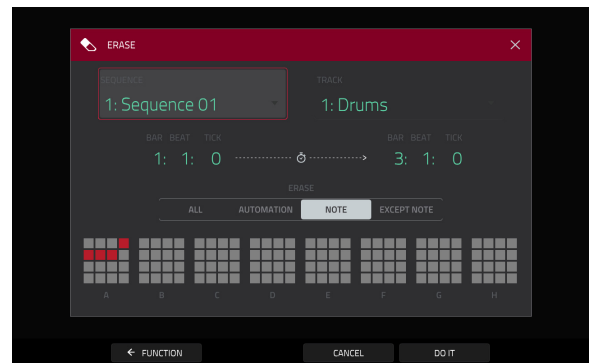
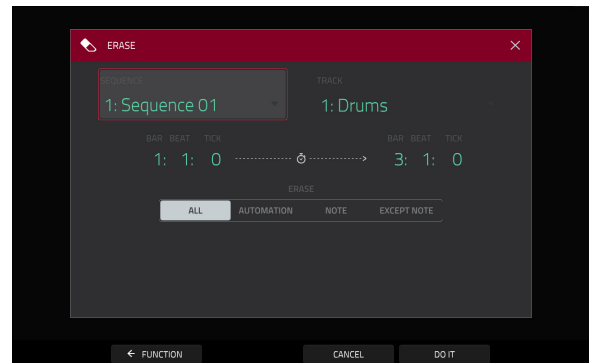
**Note** erases only specific pad events from the designated time range. In the diagram of the eight pad banks that appears, press each pad in each bank to select or deselect its notes.

**Except Note** erases everything **except** pad events from the designated time range.

To confirm your choice, tap **Do It**.

To return to the previous screen, tap **Function** or anywhere outside the window.

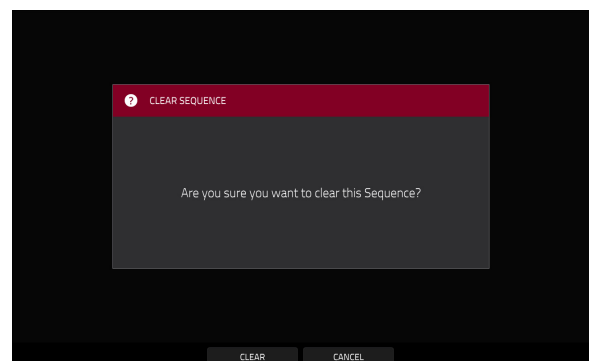
To cancel and return to **Main Mode**, tap **Cancel**.



The **Clear** function erases **all** events from the sequence and resets **all** of its settings.

To confirm your choice, tap **Clear**.

To return to the previous screen, tap **Cancel**.



The **Transpose** function transposes a range of events on a track in a sequence. The events within that range will shift accordingly in the Grid View.

**To select the sequence you want to transpose**, use the **Sequence** field.

**To select the track you want to transpose within the sequence**, use the **Track** field.

**To set the time range of the sequence you want to transpose**, use the two sets of **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

**For drum programs**, use the two **Pad** fields to select the “source” pad (whose events you want to move) and “destination” pad (where the events will be placed). Tap each field and then press the desired pad.

**For keygroup programs, plugin programs, and MIDI programs**, set the range and amount of transposition:

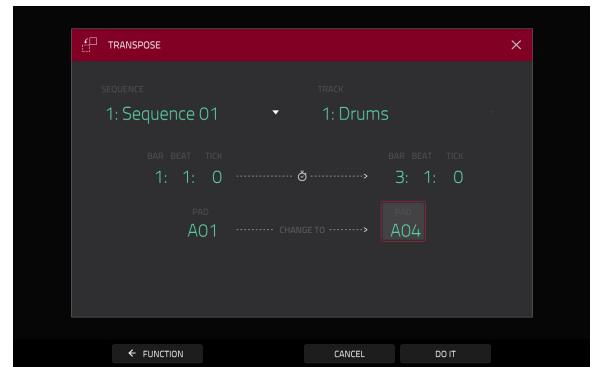
**Range:** Use the two **Note** fields to set the range of notes of the events you want to transpose. Note events within this range will be transposed, while note events outside of this range will remain unchanged.

**Transpose:** Use this field to set how many semitones up or down you want to transpose the note events.

**To confirm your choice**, tap **Do It**.

**To return to the previous screen**, tap **Function** or anywhere outside the window.

**To cancel and return to Main Mode**, tap **Cancel**.



The **Bounce to Sample** function **immediately** renders the sequence (all of its tracks) as an audio sample and places it in the project’s sample pool. By default, it will be named **Bounce** - and appended with the sequence name.

If you have already used this function on this sequence, then you will be asked if you want to overwrite the existing sample with this new one or cancel.

**To continue and save the sequence over the existing one**, tap **Replace**.

**To cancel**, tap **Cancel**.

The **Delete Bars** function removes a range of bars from a sequence.

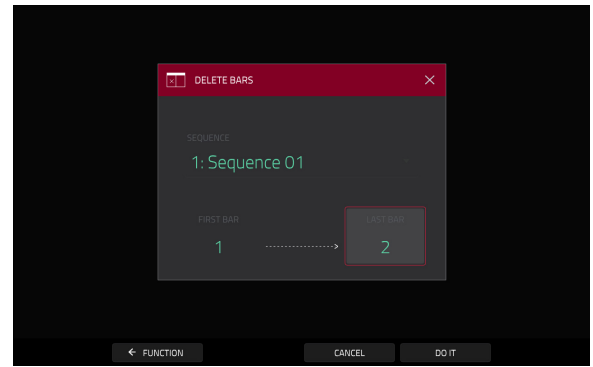
**To select the sequence whose bars you want to delete**, use the **Sequence** field.

**To set the range of bars you want to delete**, use the **First Bar** and **Last Bar** fields. The bar in each field and all bars in between them will be deleted.

**To confirm your choice**, tap **Do It**.

**To return to the previous screen**, tap **Function** or anywhere outside the window.

**To cancel and return to Main Mode**, tap **Cancel**.



The **Insert Bars** function adds empty bars to a sequence at a specified point.

**To select the desired sequence**, use the **Sequence** field.

**To set how many bars you will insert**, use the **# of Bars** field.

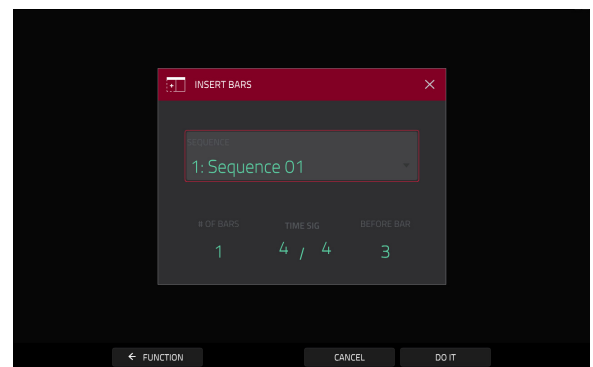
**To set the time signature of the inserted bars**, use the two **Time Sig** fields.

**To set where you will insert the bars**, use the **Before Bar** field. The bars will be inserted before this one.

**To confirm your choice**, tap **Do It**.

**To return to the previous screen**, tap **Function** or anywhere outside the window.

**To cancel and return to Main Mode**, tap **Cancel**.



The **Half Length** function will **immediately** halve the length of the sequence (without deleting any note events).

The **Double Length** function will **immediately** double the sequence and copy all events from the first half to the second half.

The **Copy Sequence** function copies the contents of one sequence to another.

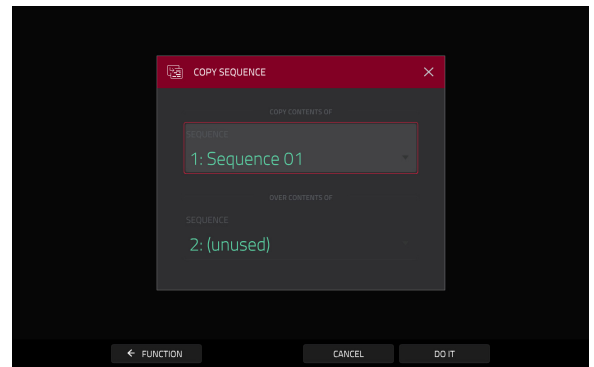
**To select the “source” sequence**, use the **Copy Contents of Sequence** field. This is the sequence whose events you want to copy.

**To select the “destination” sequence**, use the **Over Contents of Sequence** field. This is the sequence where the source sequence will be copied.

**To confirm your choice**, tap **Do It**.

**To return to the previous screen**, tap **Function** or anywhere outside the window.

**To cancel and return to Main Mode**, tap **Cancel**.



The **Copy Bars** function copies a range of bars from a sequence and adds them to another at a specified point.

**To select the “source” sequence**, use the **From Sequence** field. This is the sequence whose bars you want to copy.

**To set the range of bars to copy in the source sequence**, use the **First Bar** and **Last Bar** fields.

**To select the “destination” sequence**, use the **To Sequence** field. This is the sequence where the source sequence bars will be copied.

**To set where you want to add the copied bars**, use the **After Bar** field. The copied bars will be inserted after this one.

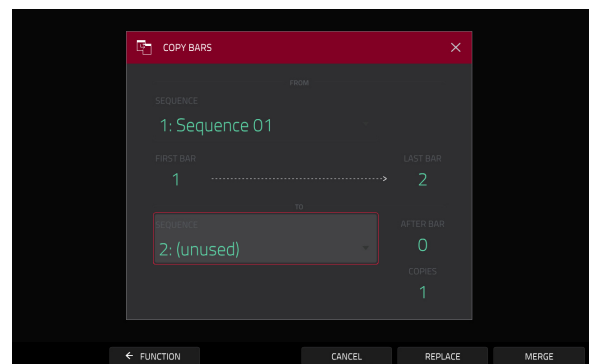
**To set how many instances of the copied bars you want to add**, use the **Copies** field.

**To overwrite the destination sequence**, tap **Replace**.

**To add the events to the destination sequence without erasing anything**, tap **Merge**.

**To return to the previous screen**, tap **Function** or anywhere outside the window.

**To cancel and return to Main Mode**, tap **Cancel**.





The **Copy Events** function copies a range of events from a sequence and add them to another at a specified point.

**To select the “source” sequence**, use the **From Sequence** field. This is the sequence whose events you want to copy.

**To select the “source” track**, use the **From Track** field. This is the track whose events you want to copy.

**To set the time range of the events you want to copy**, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

**To select the “destination” sequence**, use the **To Sequence** field. This is the sequence where the source sequence events will be copied.

**To select the “destination” track**, use the **To Track** field. This is the track where the source track events will be copied.

**To set where you want to add the copied events**, use the **Bar**, **Beat**, and **Tick** fields. The events will be added after this point.

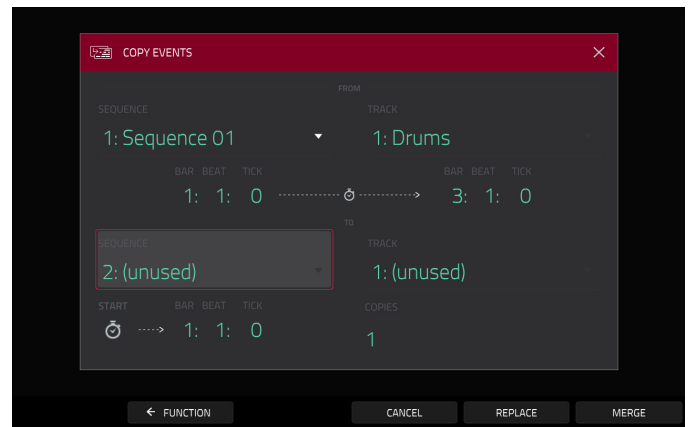
**To set how many instances of the copied events you want to add**, use the **Copies** field.

**To overwrite the destination sequence**, tap **Replace**.

**To add the events to the destination sequence without erasing anything**, tap **Merge**.

**To return to the previous screen**, tap **Function** or anywhere outside the window.

**To cancel and return to Main Mode**, tap **Cancel**.



The **Save Current Sequence** function saves the current sequence to an external storage device or MPC X’s internal drive.

**To select the storage device you want to view**, tap it in the **Storage** column on the left. **Internal** is the MPC X’s internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder on the internal drive. If you have storage devices connected to MPC X’s USB ports or SD card slot, they will appear in this column, as well.

**To enter a folder**, double-tap it. Alternatively, turn the **data dial** or use the **-/+** buttons to move through the list, and press the **center cursor** or **Enter** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see [Browser](#) to learn how to do this).

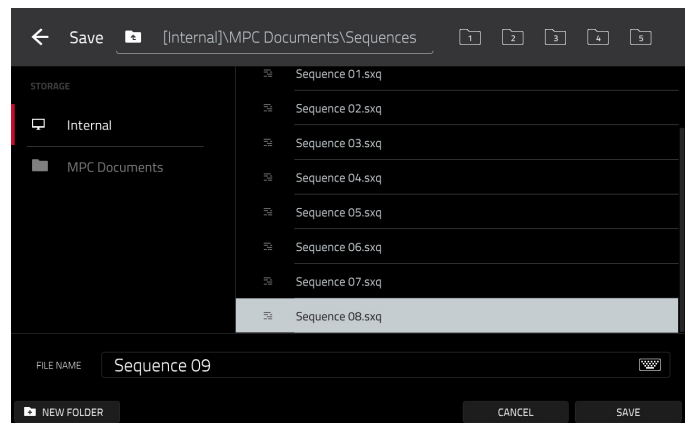
**To create a new folder**, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

**To move up one folder level**, tap the **folder/L** icon.

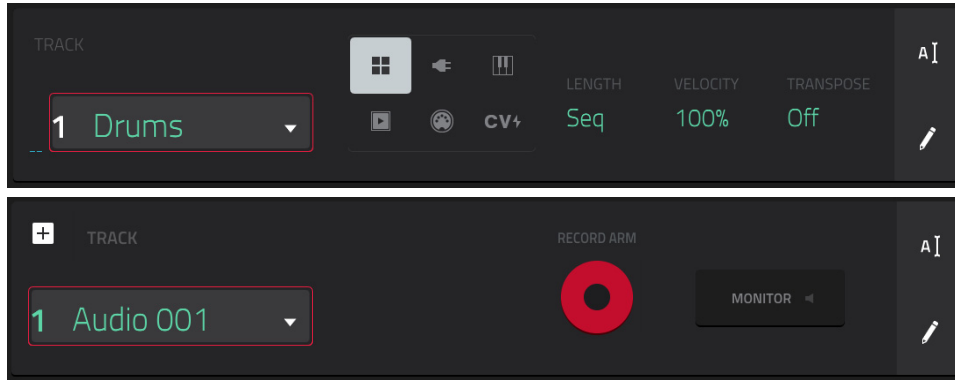
**To name the file**, tap the **File Name** field at the bottom of the screen, and use the virtual keyboard that appears.

**To save the file**, tap **Save**.

**To cancel and return to the Menu**, tap **Cancel**. Alternatively, tap the **←** icon in the upper-left corner.



The **Track** section shows the current track, program type, and its information.



The **Track** field shows the track number and its name.

**To edit the name of the track**, tap the **cursor icon** on the right edge of the section and use the virtual keyboard that appears.

While using a MIDI track, the **program selector** indicates the type of program through which the track is being routed. The specific program name is displayed below in the **Program** section. You can use the program selector to change program type (and then select a specific program of that type in the **Program** section below it).

**To select a drum program**, tap the **four-squares icon**.

**To select a keygroup program**, tap the **piano-keys icon**.

**To select a clip program**, tap the **play-button icon**.

**To select a MIDI program**, tap the **bars icon**.

**To select a CV program**, tap the **CV icon**.

**To select a plugin program**, tap the **plug icon**. Plugin programs are available only while using MPC X in Controller Mode with the desktop version of the MPC software.

While using a MIDI track, use the **Length** field to set how long the track is in beats. If you select the minimum value, **Seq** or **0** (if you use the numeric keypad), the track will be the exact same length as its sequence.

**Tip:** This feature lets you maintain tracks of different lengths. For instance, you could play a 1-bar drum sequence repeatedly under a 4-bar bass line.

While using a MIDI track, use the **Velocity** field to set how loudly or quietly a track plays relative to its recorded levels. When set to **50%**, the track will be played with half the velocity it was originally played. When set to **200%**, the track will play twice as loud. The maximum velocity level is still **127**, though.

While using a MIDI track, use the **Transpose** field to set the transposition (in semitones) of the entire track.

While using an audio track, tap the **Record Arm** button to record-enable the track. When you begin audio recording, the audio signal will be recorded to this track.

**Tip:** You can select multiple tracks in the Track View by pressing and holding **Shift** while tapping the **Arm** button to each track.

While using an audio track, use the **Monitor** button to set how your audio track will be monitored. Tapping it will cycle through its three states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

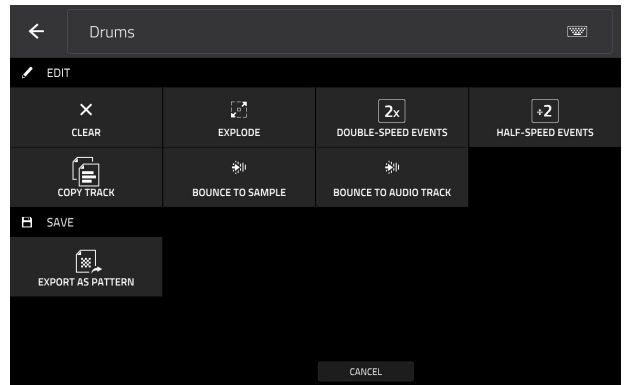
When **off**, you will never hear any incoming audio.

**To edit the track**, tap the **pencil icon** on the right edge of the section. The Track Edit window will open.

While using MIDI tracks, you can use any of these functions as described below.

**To return to Main Mode**, tap **Cancel** or the left arrow (←) in the upper-left corner of the touchscreen. Alternatively, press **Main**.

**To edit the name of the track**, tap the top of the touchscreen and use the virtual keyboard that appears.



The **Clear** function erases **all** events from the track and resets **all** of its settings.

**To confirm your choice**, tap **Clear**.

**To return to the previous screen**, tap **Cancel**.

The **Explode** function **immediately** splits the current track into multiple tracks—one for each distinct pad or note (pitch, not event). The current track also remains present and intact, while each track created from it is labeled with the track name and pad name or number.

The **Double-Speed Events** function **immediately** halves the lengths of all note events on the track as well as the distance between them. In other words, the track's notes are pressed closer together so the track sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.

The **Half-Speed Events** function **immediately** doubles the lengths of all note events on the track as well as the distance between them. In other words, the track's notes are spread further apart so the track sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.

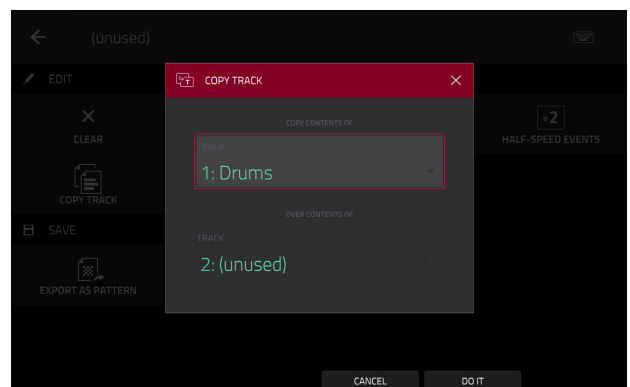
The **Copy Track** function copies the contents of one track to another.

**To select the “source” track**, tap the **Copy Contents of Track** field. This is the track whose events you want to copy.

**To select the “destination” track**, tap the **Over Contents of Track** field. This is the track where the source track will be copied.

**To confirm your choice**, tap **Do It**.

**To cancel and return to Main Mode**, tap **Cancel**.



The **Bounce to Sample** function **immediately** renders the track (for the current sequence only) as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce** - and appended with the track name. This function does not work for tracks that use MIDI programs or CV programs.

If you have already used this function on this track, then you will be asked if you want to overwrite the existing sample with this new one or cancel.

**To continue and save the track over the existing one,** tap **Replace**.

**To cancel,** tap **Cancel**.

The **Bounce to Audio Track** function **immediately** renders the track (for the current sequence only) as an audio track in the project. The Main Mode will automatically switch to the **Audio** tab. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for tracks that use MIDI programs or CV programs.

If you have already used this function on this track, then you will be asked if you want to overwrite the existing sample with this new one or cancel.

**To continue and save the track over the existing one,** tap **Replace**.

**To cancel,** tap **Cancel**.

The **Export as Pattern** function saves the track (for the current sequence only) as a pattern (.mcpattern) to an external storage device or MPC X's internal drive.

**To select the storage device you want to view,** tap it in the **Storage** column on the left. **Internal** is the MPC X's internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder on the internal drive. If you have storage devices connected to MPC X's USB ports or SD card slot, they will appear in this column, as well.

**To enter a folder,** double-tap it. Alternatively, turn the **data dial** or use the **-/+** buttons to move through the list, and press the **center cursor** or **Enter** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see [Browser](#) to learn how to do this).

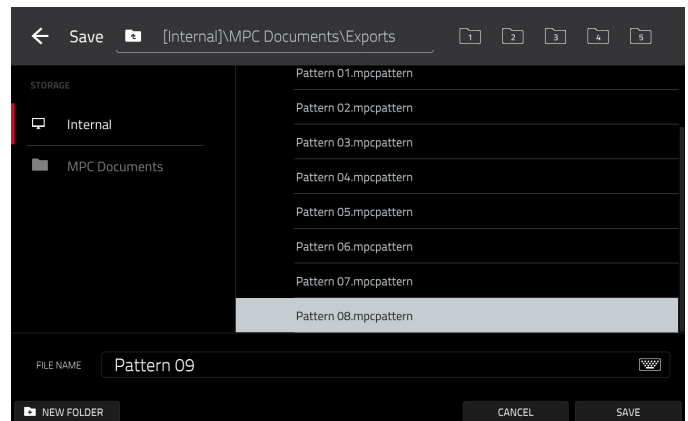
**To create a new folder,** tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

**To move up one folder level,** tap the **folder/↑** icon.

**To name the file,** tap the **File Name** field at the bottom of the screen, and use the virtual keyboard that appears.

**To save the file,** tap **Save**.

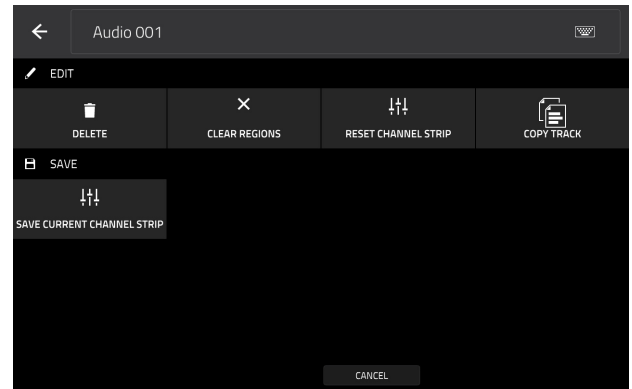
**To cancel and return to the Menu,** tap **Cancel**. Alternatively, tap the **←** icon in the upper-left corner.



While using audio tracks, you can use any of these functions as described below.

**To return to Main Mode**, tap **Cancel** or the left arrow (←) in the upper-left corner of the touchscreen. Alternatively, press **Main**.

**To edit the name of the track**, tap the top of the touchscreen and use the virtual keyboard that appears.

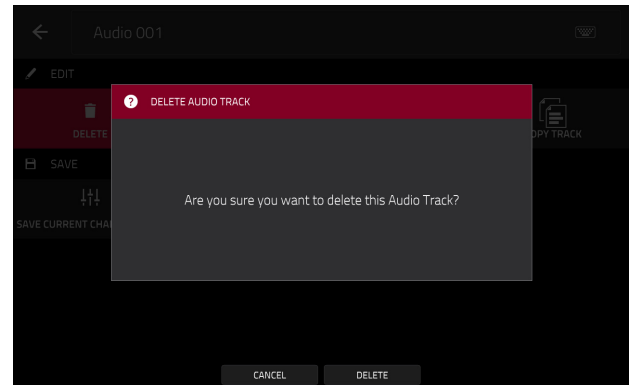


The **Delete** function erases the entire audio track.

**To confirm your choice**, tap **Clear**.

**To return to the previous screen**, tap **Cancel**.

The **Clear Regions** function erases all **regions** from the audio track without erasing the track itself.



The **Reset Channel Strip** function:

- clears all **Insert** effect slots;
- turns **Mute**, **Solo**, automation, and **Monitor** off;
- resets the **pan knob** to the center;
- resets the **level slider** to **0.00 dB**; and
- turns the **Record Arm** button off.

It does not change the track's inputs or outputs.

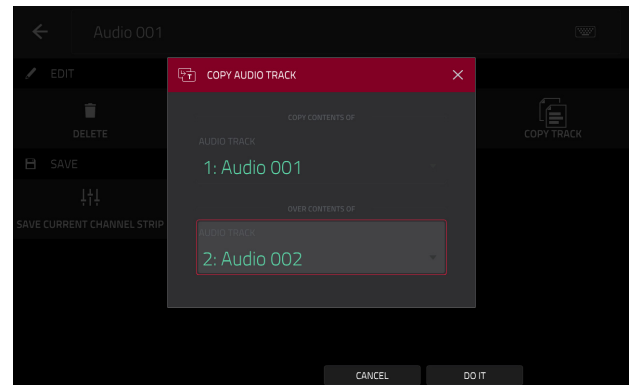
The **Copy Track** function copies the contents of one track to another.

**To select the "source" track**, tap the **Copy Contents of Track** field. This is the track whose events you want to copy.

**To select the "destination" track**, tap the **Over Contents of Track** field. This is the track where the source track will be copied.

**To confirm your choice**, tap **Do It**.

**To cancel and return to Main Mode**, tap **Cancel** or anywhere outside the window.



The **Save Current Channel Strip** function saves the current settings of the track channel strip (for the current audio track) to an external storage device or MPC X's internal drive.

**To select the storage device you want to view**, tap it in the **Storage** column on the left. **Internal** is the MPC X's internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder on the internal drive. If you have storage devices connected to MPC X's USB ports or SD card slot, they will appear in this column, as well.

**To enter a folder**, double-tap it. Alternatively, turn the **data dial** or use the **-/+** buttons to move through the list, and press the **center cursor** or **Enter** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see [Browser](#) to learn how to do this).

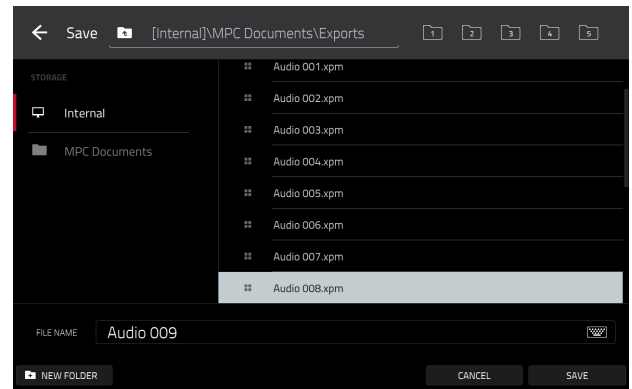
**To create a new folder**, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

**To move up one folder level**, tap the **folder/↑** icon.

**To name the file**, tap the **File Name** field at the bottom of the touchscreen, and use the virtual keyboard that appears.

**To save the file**, tap **Save**.

**To cancel and return to the Menu**, tap **Cancel**. Alternatively, tap the **←** icon in the upper-left corner.



The **Program** section shows the current program. This section will appear differently depending on the type of program selected in the **Track** section above it.

For all program types while using MIDI tracks, you can do the following:

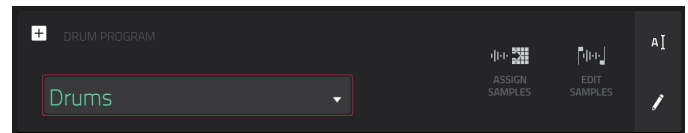
**To edit the name of the program**, tap the **cursor icon** on the right edge of the section. Use the virtual keyboard that appears to enter a new name, and then tap **Do It**.

**To create a new program of the currently selected type**, tap the **+ icon**. A new program of the same type will be created and appended with a number (e.g., **Program 002**).

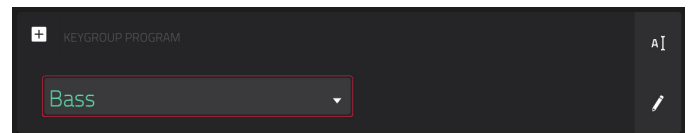
While viewing drum programs, the **Drum Program** field shows the name of the program.

Tap **Assign Samples** to enter the **Sample Assign** tab in the Browser immediately (see [Browser](#) to learn about this).

Tap **Edit Samples** to enter Program Mode in Sample Edit Mode immediately (see [Sample Edit Mode > Program Mode](#) to learn about this). The sample shown will be the one in the top layer of the last pad you pressed.

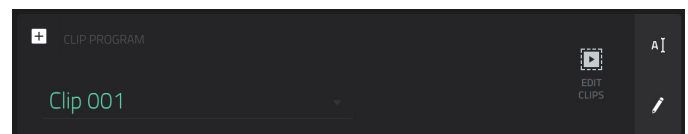


While viewing keygroup programs, the **Keygroup Program** field shows the name of the program.



While viewing clip programs, the **Clip Program** field shows the name of the program.

Tap **Edit Clips** to enter Program Edit Mode, where you can assign samples (clips) to pads, edit each clip, and configure how each clip plays when launched (see [Program Edit Mode > Clip Programs](#) to learn about this).



While viewing plugin programs, the **Plugin Program** field shows the name of the program.

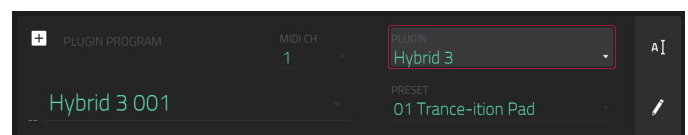
**Important:** Plugin programs are available only while using MPC X in Controller Mode with the desktop version of the MPC software.

Use the **Plugin** field to select the plugin the program is using. In the screen that appears, you can tap the **Type** or **Manufacturer** button at the bottom of the touchscreen to enable or disable sorting of your plugins by type or maker.

**Note:** You have to specify the disk directory where your plugins are located. This can be done in the software's **Preferences**. To see user guide in the MPC software and learn how to do this, click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.

Use the **MIDI Ch** field to select the MIDI channel the program uses. Use this setting when you are working with a virtual instrument plugin that supports multi-mode.

Use the **Preset** field to select a preset (if any) within the plugin the program is using.



While viewing MIDI programs, the **MIDI Program** field shows the name of the program.

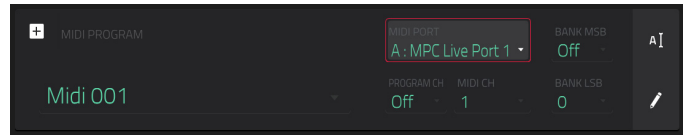
Use the **MIDI Port** field to select the port over which the program sends its MIDI data.

**Note:** You also have to configure the MIDI ports in the **Preferences**. To see user guide in the MPC software and learn how to do this, click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.

Use the **Program Ch** field to select the program change message the program sends out.

Use the **MIDI Ch** field to select the MIDI channel over which the program sends its MIDI data.

Use the **Bank MSB** and **Bank LSB** fields to select the messages for Most Significant Byte and Least Significant Byte (respectively) that the program sends out.



While viewing CV programs, the **CV Program** field shows the name of the program.

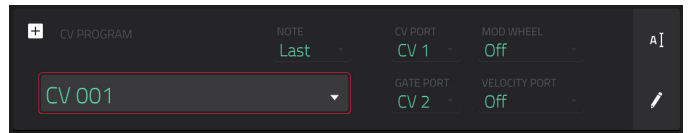
Use the **Note** field to select the note tracking—the program’s note track: **Lowest**, **Highest**, or **Last**.

Use the **CV Port** field to select the CV port the program is using.

Use the **Gate Port** field to select the Gate port the program is using.

Use the **Mod Wheel** field to select the CV port used by a modulation wheel on an external controller.

Use the **Velocity Port** field to select CV port the program will use to transmit velocity values.

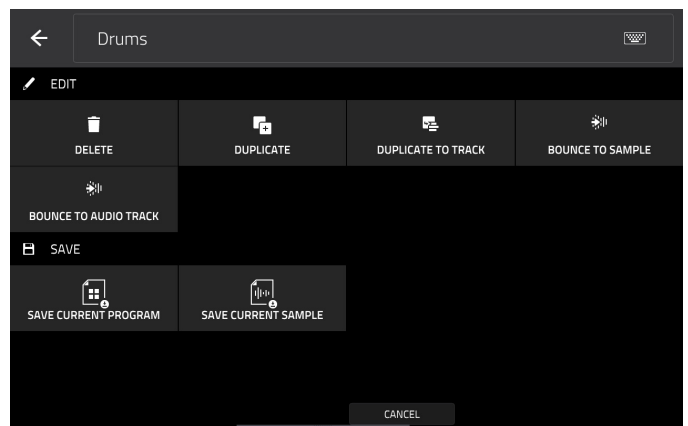


**To edit the program**, tap the **pencil icon** on the right edge of the section. The **Program Edit/Copy** window will open.

You can use any of these functions as described below.

**To return to Main Mode**, tap **Cancel** or the left arrow (←) in the upper-left corner of the touchscreen. Alternatively, press **Main**.

**To edit the name of the program**, tap the top of the touchscreen and use the virtual keyboard that appears.

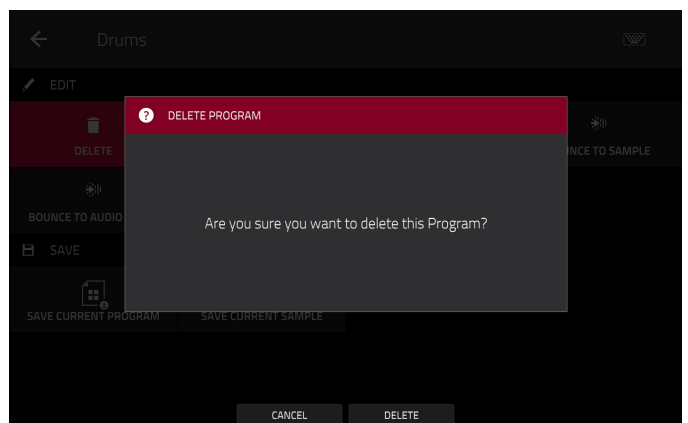


The **Delete** function erases **all** events from the track and resets **all** of its settings.

**To confirm your choice**, tap **Clear**.

**To return to the previous screen**, tap **Cancel**.

The **Duplicate** function immediately creates an identical program. The duplicate program will use the same name but appended with a number (e.g., **Program 002**).





The **Duplicate to Track** function immediately creates an identical program on a new track. The duplicate program will use the same name but appended with a number (e.g., **Program 002**). The new track will be named **Track** and appended with a number (e.g., **Track 06**).

The **Bounce to Sample** function **immediately** renders all tracks that use that program (for the current sequence only) as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce** - and appended with the program name. This function does not work for MIDI programs or CV programs.

If you have already used this function on this program, then you will be asked if you want to overwrite the existing sample with this new one or cancel.

**To continue and save the program over the existing one, tap Replace.**

**To cancel, tap Cancel.**

The **Bounce to Audio Track** function **immediately** renders that program (for the current sequence only) as an audio track in the project. The Main Mode will automatically switch to the **Audio** tab. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for MIDI programs or CV programs.

If you have already used this function on this track, then you will be asked if you want to overwrite the existing sample with this new one or cancel.

**To continue and save the track over the existing one, tap Replace.**

**To cancel, tap Cancel.**

The **Save Current Program** or **Save Current Sample** function saves the current program or sample (the top layer of the last pad you pressed) (respectively) to an external storage device or MPC X's internal drive.

**To select the storage device you want to view, tap it in the Storage column on the left. Internal** is the MPC X's internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder on the internal drive. If you have storage devices connected to MPC X's USB ports or SD card slot, they will appear in this column, as well.

**To enter a folder, double-tap it. Alternatively, turn the data dial or use the -/+ buttons to move through the list, and press the center cursor or Enter to enter a folder. You can also tap one of the five folder buttons in the upper-right to jump immediately to those pre-assigned file paths (see [Browser](#) to learn how to do this).**

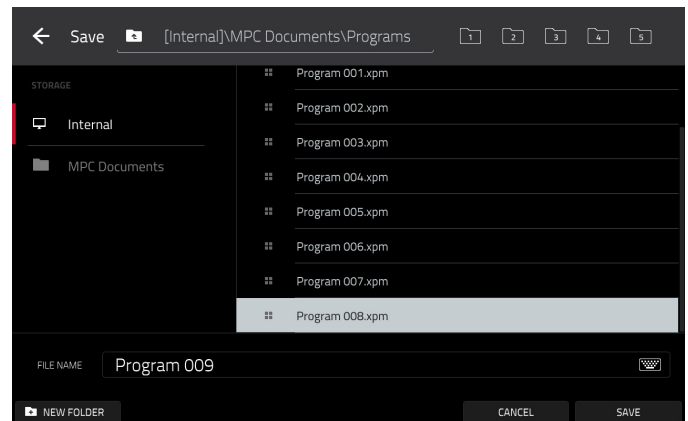
**To create a new folder, tap New Folder, use the virtual keyboard that appears to enter a name, and then tap Do It. You will immediately enter the new folder.**

**To move up one folder level, tap the folder/L icon.**

**To name the file, tap the File Name field at the bottom of the touchscreen, and use the virtual keyboard that appears.**

**To save the file, tap Save.**

**To cancel and return to the Menu, tap Cancel. Alternatively, tap the ← icon in the upper-left corner.**



For all program types while using audio tracks, you can do the following:

**To change the input source, tap Input Config.** This will show or hide the track channel strip. If you are viewing the audio track channel strip (not the master channel strip), the first field will be automatically selected.

**To enter Audio Edit Mode, tap Edit Audio.** This is the same as tapping the **waveform-and-box icon** on the left edge of the touchscreen.

## Grid View



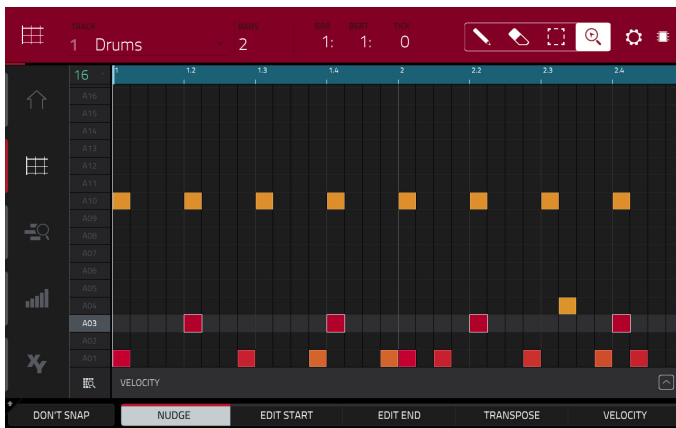
GRID VIEW

Grid View lets you view and edit the note events of each track of a sequence in a project and their velocities. This mode has two different appearances: one for drum programs and one for keygroup programs, MIDI programs, and plugin programs.

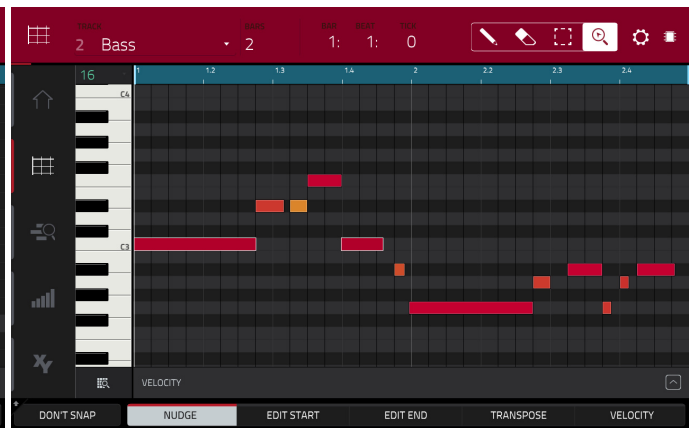
For drum programs, the left column shows you all available pads in a vertical view with their corresponding data.

For keygroup programs, plugin programs, and MIDI programs, the left column shows a vertical “piano roll” keyboard.

To enter Grid View, press **Menu**, and then tap **Grid View**.

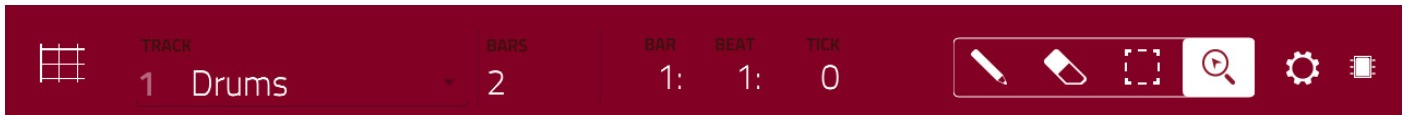


Grid View of a drum program.



Grid View of a keygroup program or MIDI program.

The top of the touchscreen shows the track name, sequence and timing information, and editing tools.



Use the **Track** field to select which track of the current sequence you want to show in the grid.

Use the **Bars** field to set the length of the sequence.

The time counter at the top of the touchscreen shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.



In Grid View, these four icons enable you to use different functions in the grid. Tap one to select its mode:



**Pencil:** Draw Mode:

**To enter a note in an empty grid square,** tap the grid square.

**To select a note,** tap it.

**To move a note,** tap and drag it to another grid square.

**To erase a note,** double-tap it.



**Eraser:** Erase Mode:

**To erase a note,** tap it.



**Select Box:** Select Mode:

**To select a note,** tap it.

**To select multiple notes,** tap and drag across the grid to create a box around them.

**To move a note,** tap and drag it to another grid square.

**To move multiple notes,** select them as described above, and tap and drag them.

**To erase multiple notes,** select them as described above, and then select the Eraser tool and tap any of the selected notes.



**Magnifying Glass:** Navigation Mode:

**To move to another part of the grid,** tap and drag it.

**To zoom in or out,** spread or pinch your fingers (respectively) on the grid. You can do this vertically, horizontally, or both at the same time.

The **Settings** window lets you configure certain Grid View settings.

**To view the Settings,** tap the **gear icon**.

Use the **Hitting Pad Selects All Events** selector to turn the feature on or off. When on, pressing a pad will automatically select all note events for that pad in the sequence on that track. When off, pressing a pad will simply play its sound without selecting any note events.

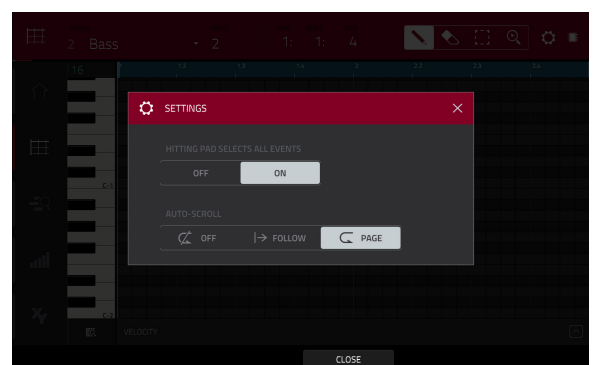
Use the **Auto-Scroll** selector to set how the screen behaves relative to the audio playhead.

**Follow:** Depending on the zoom setting, the grid will scroll along in the background while keeping the audio playhead centered.

**Page:** The grid will move to the “next page” to follow the audio playhead.

**Off:** The grid will not move at all.

These functions also apply to the sample waveform in Sample Edit Mode.



The left edge contains icons to quickly enter one of five modes. Using this strip of icons, you can easily jump between them:



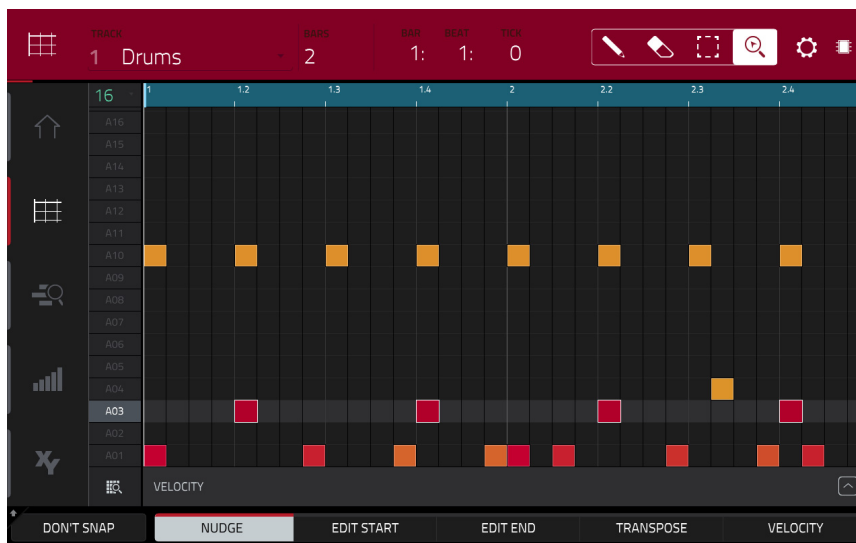
**To enter Main Mode**, tap the **house icon**.

**To enter Grid View**, tap the **grid icon**. The **MIDI** tab in the lower-left corner of the touchscreen in Main Mode must be selected for this icon to be shown.

**To enter the Track View**, tap the **bars-and-magnifying-glass icon**.

**To enter the Step Sequencer**, tap the **vertical-bars icon**.

**To enter XYFX Mode**, tap the **XY icon**.



Regardless of which tool is selected, you can do any of the following to move, lengthen, shorten, or transpose any selected note/notes.

**To automatically set the grid to view one pad bank and two bars**, tap the **grid-and-magnifying-glass icon** in the lower-left corner.

**To undo your last action**, press **Undo**.

**To redo the last action you undid**, press **Shift+Undo/Redo**.

**To select all notes for a pad**, press the desired **pad**.

**To move the selected notes**, tap **Nudge** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons to shift the notes left or right. By default, you can position notes only by quantization values defined by the **Time Correct** value (learn about this feature [here](#) in the Main Mode chapter).

**To move the selected notes without restricting** (“snapping”) **them to the quantization grid**, tap and hold **Don't Snap** in the lower-left corner of the touchscreen, and then use the **data dial** or **-/+** buttons to shift the notes. In this case, each nudge is equivalent to four ticks.

**To adjust the start point or end point of the selected notes** (without changing their position), tap **Edit Start** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons.

**To transpose the selected notes up or down**, tap **Transpose** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons.

**To switch to the previous or next track**, press and hold **Shift**, and then tap **Track -** or **Track +** (respectively) at the bottom of the touchscreen.

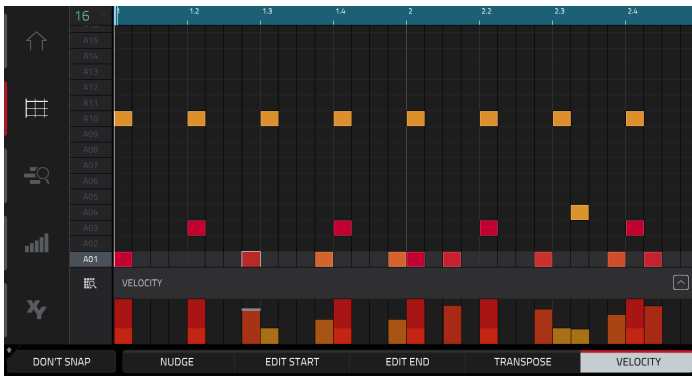
**To mute or solo the track**, press and hold **Shift**, and then tap **Mute** or **Solo** (respectively) at the bottom of the touchscreen.

To open the **Timing Correct** window, press and hold **Shift**, and then tap **TC** at the bottom of the touchscreen. This feature is described [here](#) in the Main Mode chapter.

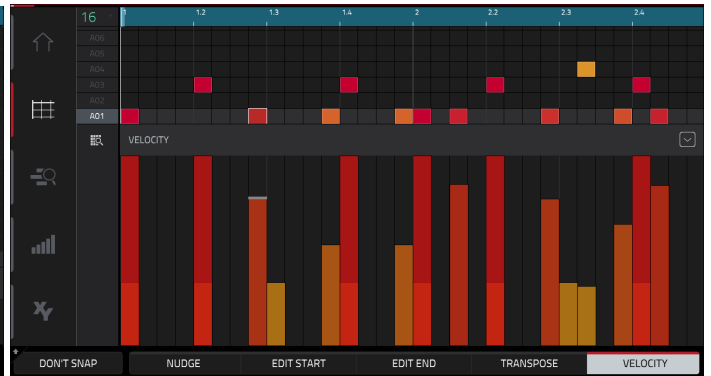
To select a time division directly, double-tap the **down arrow** (▼) in the upper-left corner of the grid and select a time division.

To adjust the metronome settings, press and hold **Shift**, and then tap **Click** at the bottom of the touchscreen. This feature is described [here](#) in the Main Mode chapter.

Grid View also contains a velocity lane where you can easily adjust note velocities.



The velocity lane in the Grid View.



The taller velocity lane in the Grid View.

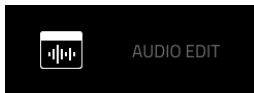
#### To show or hide the velocity lane:

1. Tap the up **arrow** (▲) button in the lower-right corner to show the velocity lane.
2. Tap the up **arrow** (▲) button once more to show a taller version of the velocity lane. The button will now show a **down arrow** (▼).
3. Tap the **down arrow** (▼) to hide the velocity lane.

Each note's velocity is represented by a vertical bar. The higher and more red the bar is, the higher the velocity is. Yellow bars indicate a lower velocity. Bars with a gray line at the top indicate a currently selected note.

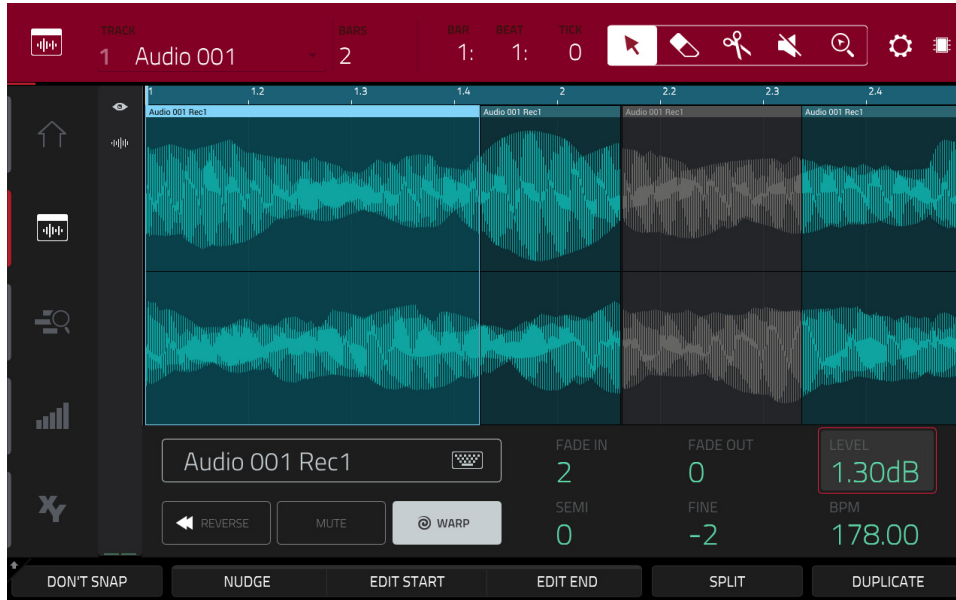
To adjust the velocity of the selected notes, tap **Velocity** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons. The numeric value will appear on the touchscreen.

## Audio Edit Mode



Audio Edit Mode lets you view and edit the audio tracks of a sequence in a project.

To enter Audio Edit Mode, press **Menu**, and then tap **Audio Edit Mode**.



Audio Edit Mode.

Below is a brief step-by-step process so you can get started recording audio tracks quickly. Continue reading the rest of this chapter to learn how to use Audio Edit Mode in different cases.

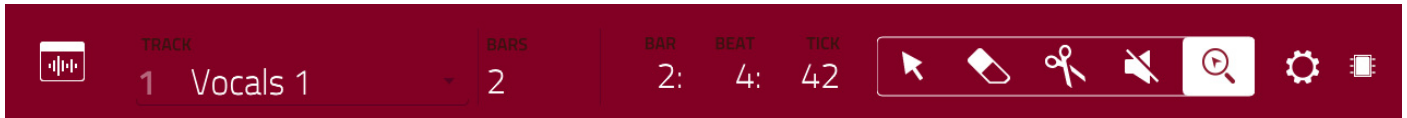
**To record in Audio Edit Mode** (or Main Mode):

1. If the channel strip is not already shown on the left side of the screen, tap the small **eye icon** to show it.
2. Connect a synthesizer or other line-level audio source to the appropriate input/inputs of your MPC X. Set the **Line/Phono selector** appropriately, too.
3. Double-tap the first field to select the input source of the external audio signal (**Input 1,2**, **Input 3,4**, or one of **Input 1-4**).
4. Double-tap the second field to select where the track is routed (**Out 1,2-7,8** in Standalone Mode, **Out 1,2-31,32** in Controller Mode).
5. Tap the **Monitor** button to set how your audio track will be monitored. Tapping it will cycle through its three states:
  - When set to **Auto**, you will hear incoming audio while the track is record-enabled only.
  - When **on**, you will hear incoming audio whether or not the track is record-enabled.
  - When **off**, you will never hear any incoming audio.
6. Turn the **Rec Gain** knob to set the input level while sending an audio signal into MPC X. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be “peaking” constantly).
7. If **Mute** and **Solo** are on, press them so they are **off**. We also recommend pressing **Read/Write** so it is **off** (not green/Read [R] or red/Write [W]).



8. Press **Rec Arm** or tap the **Rec Arm** button next to the **pan knob** to record-enable the track.
9. Press **Rec** or **Overdub** to record-arm MPC X.
10. **To start recording**, press **Play** or **Play Start**—then play your audio source. You should hear your existing sequence playing in the background. You'll see the waveform appear as a single “track region” as you record.
11. **To stop recording**, press **Stop**.


The top of the touchscreen shows the track name, sequence and timing information, and editing tools.





Use the **Track** field to select which track of the current sequence you want to show in the grid.


Use the **Bars** field to set the length of the sequence.


The time counter at the top of the touchscreen shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.


 In Audio Edit Mode, these five icons enable you to use different functions in the track. Tap one to select its mode:

 **Arrow:** Selection Mode:  
**To select a track region**, tap it.  
**To move a track region**, tap and drag it.  
**To shorten or lengthen a track region**, tap its edge and drag it.

 **Eraser:** Erase Mode:  
**To erase a track region**, tap it.

 **Scissors:** Split Mode:  
**To split the track at a specific point** (creating a track region on either side), tap that point in the track.  
**To select a track region**, tap its left-most edge.

 **Mute:** Mute Mode:  
**To mute or unmute a track region**, tap it.

 **Magnifying Glass:** Navigation Mode:  
**To move to another part of the track**, tap and drag it.  
**To zoom in or out**, spread or pinch your fingers (respectively) on the grid.

The Settings window lets you configure certain Audio Edit Mode settings.

**To view the Settings**, tap the **gear icon**.

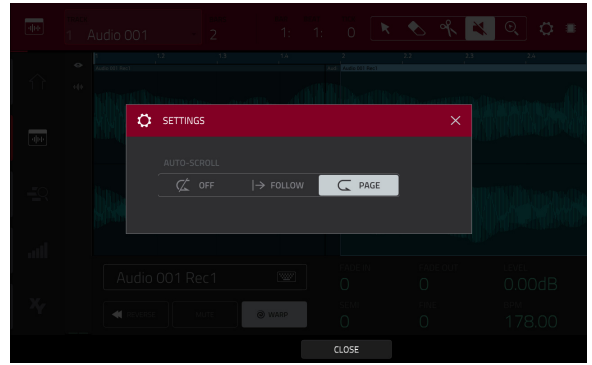
Use the **Auto-Scroll** selector to set how the screen behaves relative to the audio playhead.

**Follow:** Depending on the zoom setting, the waveform display will scroll along in the background while keeping the audio playhead centered.

**Page:** The waveform display will move to the “next page” to follow the audio playhead.

**Off:** The waveform display will not move at all.

These functions also apply to the sample waveform in Sample Edit Mode.



The left edge contains icons to quickly enter one of five modes. Using this strip of icons, you can easily jump between them:

**To enter Main Mode**, tap the **house icon**.

**To enter Audio Edit Mode**, tap the **waveform-and-box icon**. The **Audio** tab in the lower-left corner of the touchscreen in Main Mode must be selected for this icon to be shown.

**To enter the Track View**, tap the **bars-and-magnifying-glass icon**.

**To enter the Step Sequencer**, tap the **vertical-bars icon**.

**To enter XYFX Mode**, tap the **XY icon**.



There are also two small icons to the right of these that control the channel strip.

**To show or hide the channel strip**, tap the **eye icon**.

The icon below the eye icon indicates the type of channel strip (see next description).



The channel strip contains some important settings for the audio track or master output, depending on the currently selected icon:

**To view the track channel strip**, tap the **waveform icon**.

**To view the master channel strip**, tap the **crown icon**.

When viewing the **track channel strip** while using an audio track:

The first field defines the input source of the external audio signal (**Input 1,2**, **Input 3,4**, or one of **Input 1–4**).

The second field shows where the track is routed (which you can change; **Out 1,2–7,8** in Standalone Mode, **Out 1,2–31,32** in Controller Mode).

The **Inserts** field shows any enabled or disabled effects for that track. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Solo** or **Mute** to solo or mute the track (respectively).

Tap the **Monitor** button to set how your audio track will be monitored. Tapping it will cycle through its three states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

When **off**, you will never hear any incoming audio.

Press **Read/Write** or tap the **track automation button** to cycle through its three states:

When **off**, the audio track will ignore automation data. If you have already recorded or entered automation, this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while pressing or tapping the button.

**Important:** If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the audio track will read automation data but will not record any additional automation over it. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)

When set to **Write (W)**, the audio track can record automation. (If you have any Q-Link knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording.)

**Tip:** You can quickly set all programs and audio tracks to the same automation by tapping the global automation button in the upper-right corner of the touchscreen. See [General Features > Automation](#) to learn about this.

**To change the panning or level of the track**, adjust the **pan knob** or **level slider**.

**To record-enable the track**, press **Rec Arm** (when the track name is shown in the display strip below the **level meters**) or tap the **Record Arm** button. When you begin audio recording, the audio signal will be recorded to this track.

**Tip:** You can select multiple tracks in the Track View by pressing and holding **Shift** while tapping the **Arm** button to each track.

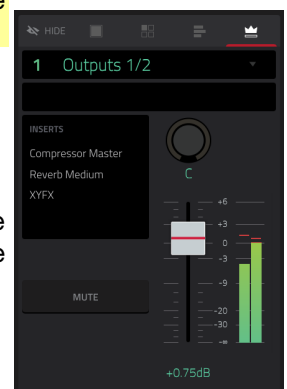
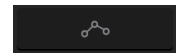
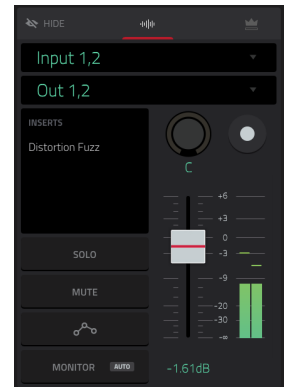
When viewing the **master channel strip**:

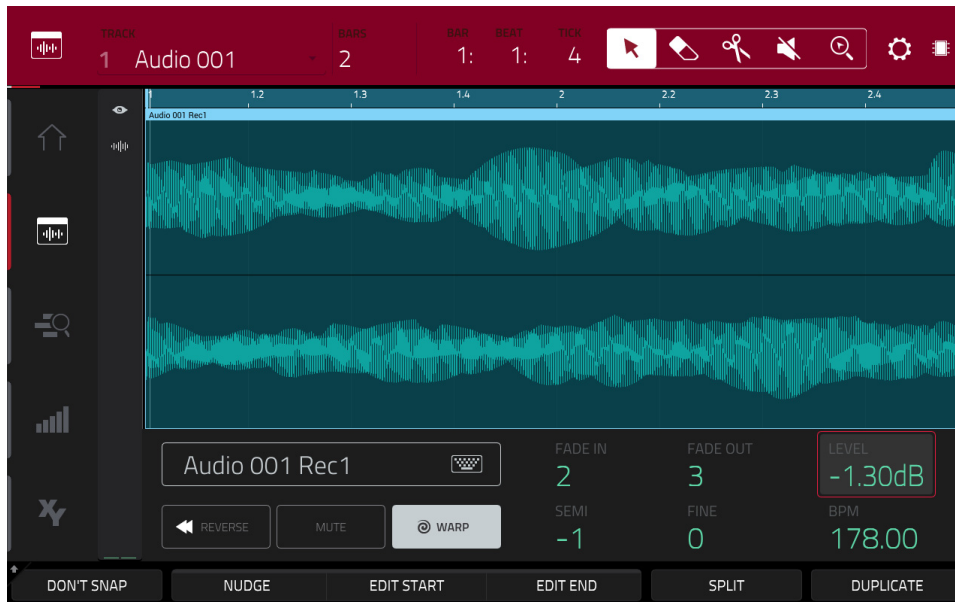
The first field shows the current master output as a stereo pair (which you can change).

The **Inserts** field shows any enabled or disabled effects for that pair of outputs. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Mute** to mute the master output.

Adjust the **pan knob** or **level slider** to change the panning or level of the master output.





Regardless of which tool is selected, you can do any of the following to edit the selected audio track regions.

**Tip:** If you want to hear only the audio track while editing, use the **Solo** button in the **track channel strip** to solo it.

**To select a track region**, tap the arrow icon to enter Selection Mode and tap a track region. When a track region is selected, all region parameters will be available to edit.

**To undo your last action**, press **Undo**.

**To redo the last action you undid**, press **Shift+Undo/Redo**.

**To move the selected track region**, tap **Nudge** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons to shift the track region left or right. By default, you can move a track region only by quantization values defined by the **Time Correct** value (learn about this feature [here](#) in the Main Mode chapter).

**To move the selected track region without restricting** (“snapping”) **it to the quantization grid**, tap and hold **Don't Snap** in the lower-left corner of the touchscreen, and then use the **data dial** or **-/+** buttons to shift the track region. In this case, each nudge is equivalent to four ticks.

**To adjust the start point or end point of the selected track region** (without changing its position), tap **Edit Start** at the bottom of the touchscreen, and then use the **data dial** or **-/+** buttons.

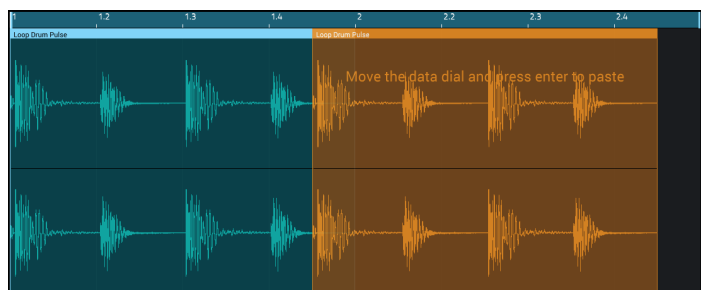
**To split the track at the current playhead position** (creating a track region on either side), tap **Split** at the bottom of the touchscreen.

**To copy and paste the selected track region**, press **Copy**, turn the **data dial** to move the highlighted track region, and then press the **center cursor** or **Enter** to paste it at its current location.

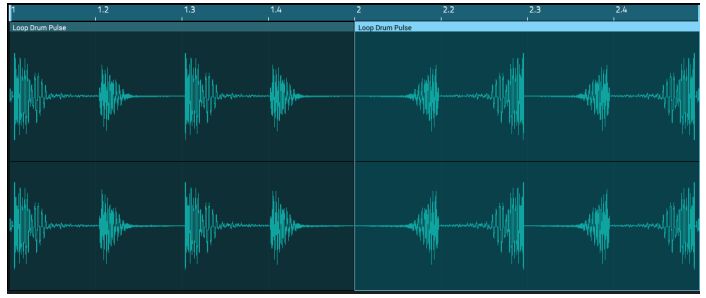
**To duplicate the selected track region**, tap **Duplicate** at the bottom of the touchscreen. The duplicate track region will appear immediately after the original one.

**To create a fade-in or fade out for the selected track region**, use the **Fade In** or **Fade Out** fields, respectively. The fades will be shown as a sloped line at the start or end of the track region.

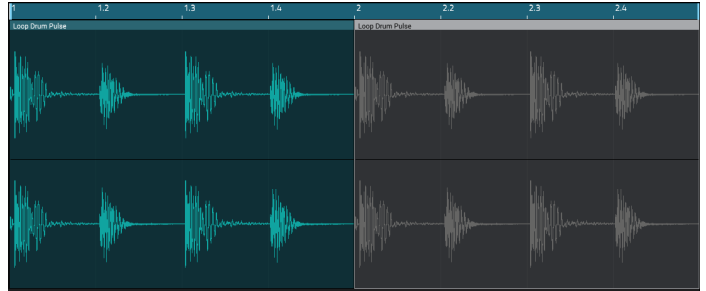
**To set the level of the selected track region**, use the **Level** field. The waveform amplitude will change accordingly.



To reverse the selected track region, tap **Reverse**.



To mute the selected track region, tap **Mute**.



To lengthen or shorten the selected track region without changing its pitch, tap **Warp**, which will enable the **Semi**, **Fine**, and **BPM** fields next to it. Use the **BPM** field to change the tempo, which will change the length of the track region accordingly. Use the **Semi** and **Fine** fields if you want to change the pitch (this is useful for matching the durations of two samples with different pitches).

**Note:** When you record an audio file, the current sequence tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this sequence tempo and the current value in the BPM field to generate the “stretch factor.”

**Note:** The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:

- Minimize the amount of pitch adjustment (e.g., the **Semi** and **Fine** fields).

- Avoid warping very small track regions.

- Warp as few tracks or track regions as possible (i.e., reduce the number of total number of voices [of the polyphonic limit] that use the warp algorithm at a given time).

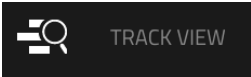
To open the **Timing Correct** window, press and hold **Shift**, and then tap **TC** at the bottom of the touchscreen. This feature is described [here](#) in the Main Mode chapter.

To adjust the **metronome settings**, press and hold **Shift**, and then tap **Click** at the bottom of the touchscreen. This feature is described [here](#) in the Main Mode chapter.

To switch to the previous or next track, press and hold **Shift**, and then tap **Track -** or **Track +** (respectively) at the bottom of the touchscreen.

To mute or solo the track, press and hold **Shift**, and then tap **Mute** or **Solo** (respectively) at the bottom of the touchscreen.

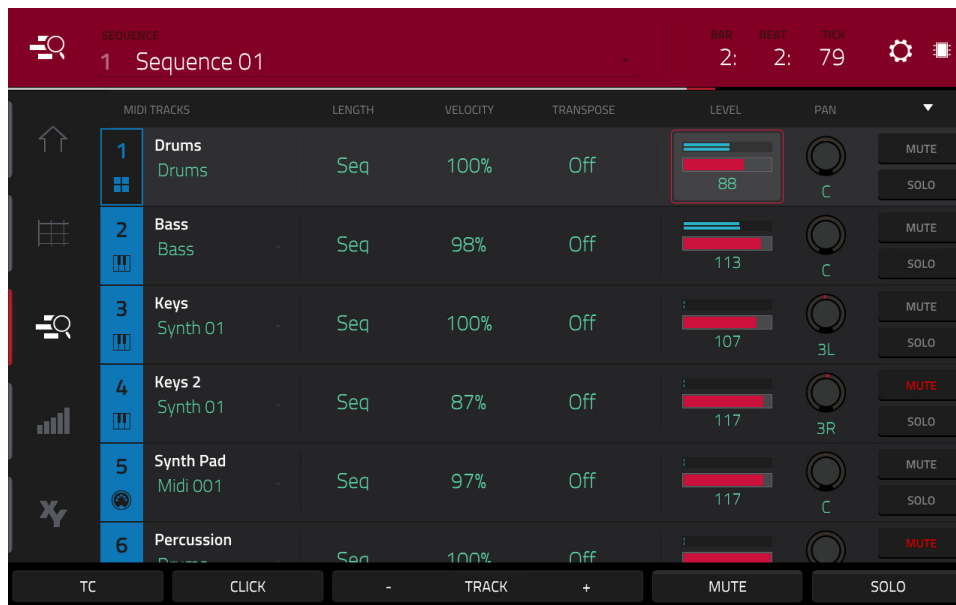
## Track View



Track View gives you an overview of the tracks of each sequence. Use this mode to edit tracks and sequences simultaneously.

To enter the Track View, do either of the following:

- Press **Menu**, and then tap **Track View**.
- Press **Shift+Main/Track**.



Each horizontal strip represents a track in the current sequence. MIDI tracks and audio tracks are grouped together. MIDI tracks are listed first, audio tracks are listed second.

To move through the list of tracks, swipe up or down.

To collapse or expand each group of tracks, tap the **up arrow (▲)** or **down arrow (▼)** icon above the first track's **Mute** button.

The top of the touchscreen shows the sequence name and timing information.



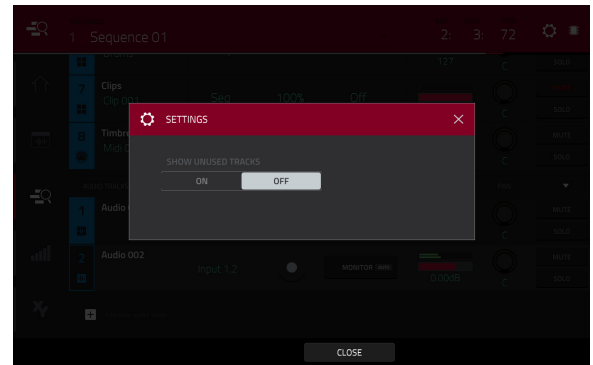
Use the **Sequence** field to select which sequence contains the tracks you want to show below.

The time counter at the top of the touchscreen shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

The Settings window lets you configure certain Track View settings.

**To view the Settings**, tap the **gear icon**.

Use the **Show Unused Tracks** selector to turn this feature on or off. When **on**, tracks with a sequence, program, etc. will still appear in the Track View. When **off**, only tracks with a sequence, program, etc. will appear.



The left edge contains icons to quickly enter one of five modes. Using this strip of icons, you can easily jump between them:

**To enter Main Mode**, tap the **house icon**.

**To enter Grid View**, tap the **grid icon**.

**To enter Audio Edit Mode**, tap the **waveform-in-box icon**.

**To enter the Track View**, tap the **bars-and-magnifying-glass icon**.

**To enter the Step Sequencer**, tap the **vertical-bars icon**.

**To enter XYFX Mode**, tap the **XY icon**.

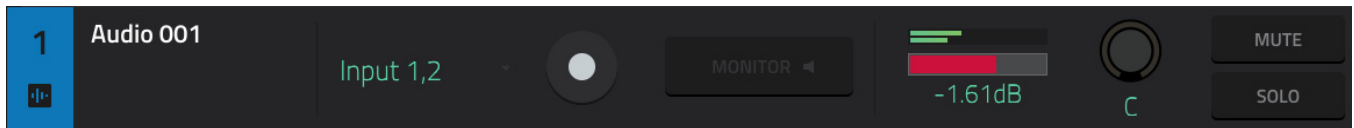


**To open the Timing Correct settings**, tap **TC** at the bottom of the touchscreen. This window is described in the [here](#) in the Main Mode chapter.

**To open the metronome settings**, tap **Click** at the bottom of the touchscreen. This window is described in the [here](#) in the Main Mode chapter.

**To select the previous or next track of the same type** (MIDI or audio), tap **Track -** or **Track +** (respectively) at the bottom of the touchscreen. Alternatively, tap the track in the main part of the touchscreen.

## MIDI Tracks



All MIDI tracks in the project are grouped together in the upper half of the Track View.

To show or hide them, tap the ▲ or ▼ arrow icon.

Use the **Program** field to select the program that the track will use.

Use the **Length** field to set how long the track is. If you select the minimum value, **Seq** or **0** (if you use the numeric keypad), the track will be the exact same length as its sequence.

**Tip:** This feature lets you maintain tracks of different lengths. For instance, you could play a 1-bar drum sequence repeatedly under a 4-bar bass line.

Use the **Velocity** field to set how loudly or quietly a track plays relative to its recorded levels. When set to **50%**, the track will be played with half the velocity it was originally played. When set to **200%**, the track will play twice as loud. The maximum velocity level is still **127**, though.

Use the **Transpose** field to set the transposition (in semitones) of the entire track.

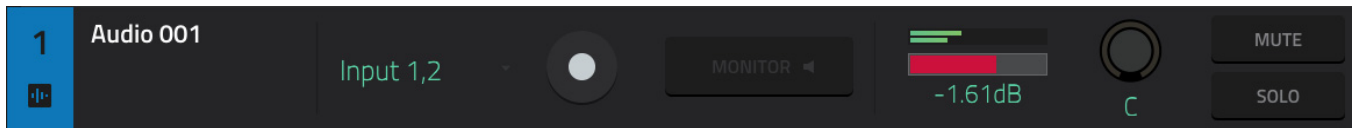
Use the **level slider** to change the level of the track. The level meter above the slider shows the track's current level.

Use the **pan knob** to change the panning of the track.

Use the **Solo** and **Mute** buttons to solo or mute the track (respectively).

Alternatively, tap **Mute** or **Solo** (respectively) at the bottom of the touchscreen to mute the currently selected track.

## Audio Tracks



All audio tracks in the project are grouped together in the lower half of the Track View.

To show or hide them, tap the ▲ or ▼ arrow icon.

Use the **Input** field to set the track's input/inputs.

Use the **Arm** button to record-enable the track. When you begin audio recording, the audio signal will be recorded to this track. You can select multiple tracks by pressing and holding **Shift** while tapping the **Arm** button to each track.

Use the **Monitor** button to set how your audio track will be monitored. Tapping it will cycle through its three states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

When **off**, you will never hear any incoming audio.

Use the **level slider** to change the level of the track. The level meter above the slider shows the track's current level.

Use the **pan knob** to change the panning of the track.

Use the **Solo** and **Mute** buttons to solo or mute the track (respectively).

Alternatively, tap **Mute** or **Solo** (respectively) at the bottom of the touchscreen to mute the currently selected track.

Use the **Add new audio track** button to create a new audio track.

## Step Sequencer



### STEP SEQUENCER

The Step Sequencer lets you create or edit sequences by using the pads as “step buttons,” simulating the experience of a traditional step-sequencer-style drum machine.

This is available for MIDI tracks only, not audio tracks.

To enter the Step Sequencer, do either of the following:

- Press **Step Seq.**
- Press **Menu**, and then tap **Step Sequencer**.



The top of the touchscreen shows the track name and information as well as sequence and timing information.



The **Track** field shows the name of the current track.

Use the **Track Length** field to set how long the track is. If you select the minimum value, **Sequence** or **0** (if you use the numeric keypad), the track will be the exact same length as its sequence.

**Tip:** This feature lets you maintain tracks of different lengths. For instance, you could play a 1-bar drum sequence repeatedly under a 4-bar bass line.

Use the **Bars** field to adjust the length of the sequence in bars.

Use the **BPM** field to adjust the tempo of the sequence.

To set whether the sequence follows its own tempo (**Seq**) or a master tempo (**Mst**), tap the **Seq/Mst** button next to the BPM field. Alternatively, press **Shift+Tap/Master**.



The time counter at the top of the touchscreen shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.





The left edge contains icons to quickly enter one of five modes. Using this strip of icons, you can easily jump between them:

- To enter **Main Mode**, tap the **house icon**.
- To enter **Grid View**, tap the **grid icon**.  
To enter **Audio Edit Mode**, tap the **waveform-and-box icon**.
- To enter the **Track View**, tap the **bars-and-magnifying-glass icon**.
- To enter the **Step Sequencer**, tap the **vertical-bars icon**.
- To enter **XYFX Mode**, tap the **XY icon**.



Use the **Time Division** selector to set the value that determines how many steps each bar of the sequence will have. The **T** indicates a triplet-based value.

Alternatively, tap **TC** at the bottom of the touchscreen to open the **Timing Correct** window. This is described [here](#) in the Main Mode chapter.

### To enter or delete steps in a sequence:

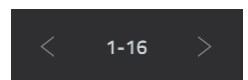
1. Use the **Pad +/-** buttons at the bottom of the touchscreen to select the pad whose steps you want to enter or delete. The current pad number is shown in the upper-left corner.

Alternatively, use the Pad Select feature: Tap and hold **Pad Sel**, press the desired pad, and then release **Pad Sel**. You can also use Pad Select as a “latching” feature: tap **Pad Sel** so it is activated, press the desired pad, and then tap **Pad Sel** once more so it is deactivated.

2. Use the **Bar +/-** buttons at the bottom of the touchscreen to select the bar of the sequence whose steps you want to enter or delete. The current bar number is shown in the upper-left corner.
3. Press the **pads** of your MPC X, or tap a button at the bottom of the sequencer. Each pad corresponds to a step in the bar and will light with a color corresponding to its velocity.

Keep in mind that for time divisions larger than 16, the bar’s steps will be represented by multiple pad banks. In this case, use **Pad Bank Buttons A** and **B** to view all the steps within a bar.

For time divisions larger than 16, the bar’s steps will be represented by multiple pad banks. In this case, use the left and right arrows (< and >) by the step numbers (**1–16**, **17–32**, etc.) to change which steps are shown in the sequencer.



Alternatively, use **Pad Bank Buttons A** and **B**.

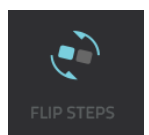
### To adjust the velocities of the steps, do either of the following:

- Tap anywhere on the **velocity bar** of a step. The top of the velocity bar will jump to that point.
- Use the **slider** on the right edge of the touchscreen to increase or decrease the velocities of all steps.

Use the **Nudge <** and **Nudge >** arrows to shift each step left or right (respectively) one step. This is useful for experimenting with different rhythmic permutations.

Use the **slider** on the right edge of the touchscreen to increase or decrease the velocities of all steps.

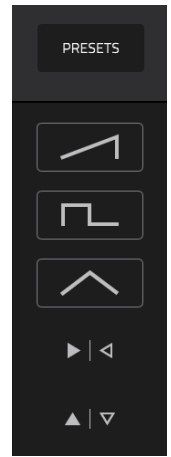
Use the **Flip Steps** button to switch which steps have notes entered and which do not have notes. Steps that previously had no notes will now have notes at full velocity (**127**). Steps that previously had notes will now be empty.



Tap **Presets** to show or hide the preset sequence controls. These controls let you manipulate and transform the velocities of the current bar in the sequence.

The **first** button will apply ascending or descending velocities to the steps. Each time you tap it, it will cycle through these options:

- The velocities will ascend to a single peak at the end of the bar.
- The velocities will ascend to two peaks—one after each half of the bar.
- The velocities will ascend to four peaks—one after each quarter of the bar.
- The velocities will descend from a single peak at the start of the bar.
- The velocities will descend from two peaks—one after each half of the bar.
- The velocities will descend from four peaks—one at the start each quarter of the bar.



The **second** button will set the velocities of the steps to be at the maximum value (**127**) or minimum values (**1**), depending on their position in the bar. Each time you tap it, it will cycle through these options:

- The velocities of the first half of the bar will be set to **1**. The velocities of the second half will be set to **127**.
- The velocities of the first and third quarters of the bar will be set to **1**. The velocities of the second and fourth quarters will be set to **127**.
- The velocities of the first, third, fifth, and seventh eighths of the bar will be set to **1**. The velocities of the second, fourth, sixth, and eighth eighths will be set to **127**.
- The velocities of the first half of the bar will be set to **127**. The velocities of the second half will be set to **1**.
- The velocities of the first and third quarters of the bar will be set to **127**. The velocities of the second and fourth quarters will be set to **1**.
- The velocities of the first, third, fifth, and seventh eighths of the bar will be set to **127**. The velocities of the second, fourth, sixth, and eighth eighths will be set to **1**.

The **third** button will apply ascending or descending velocities to the steps. Each time you tap it, it will cycle through these options:

- Across the entire bar, the velocities will ascend to a peak and then descend from it.
- In each half of the bar, the velocities will ascend to a peak and then descend from it.
- In each quarter of the bar, the velocities will ascend to a peak and then descend from it.
- Across the entire bar, the velocities will descend from a peak into a valley and then ascend back up to the peak.
- In each half of the bar, the velocities will descend from a peak into a valley and then ascend back up to the peak.
- In each quarter of the bar, the velocities will descend from a peak into a valley and then ascend back up to the peak.

The **fourth** button will swap the first half and second half of the bar. In other words, the first half of the bar will become a mirrored image of the second half, and vice versa.

The **fifth** button will invert the velocities of all steps with entered notes. The sum of the old and new velocities will equal **127**. The exception is a velocity of **127** or **1** as a step with a note cannot have a velocity of **0**.

#### Examples:

Steps with velocities of **40** will now have velocities of **87**, and vice versa.

Steps with velocities of **75** will now have velocities of **52**, and vice versa.

Steps with velocities of **127** will now have velocities of **1**, and vice versa.

## XYFX Mode



XYFX Mode turns the touchscreen into an XY pad where each axis represents the range of an effect parameter. As you move your finger on the XY pad, the current position will determine the current value of the two parameters. You can use this mode to create interesting effect automation on your tracks.

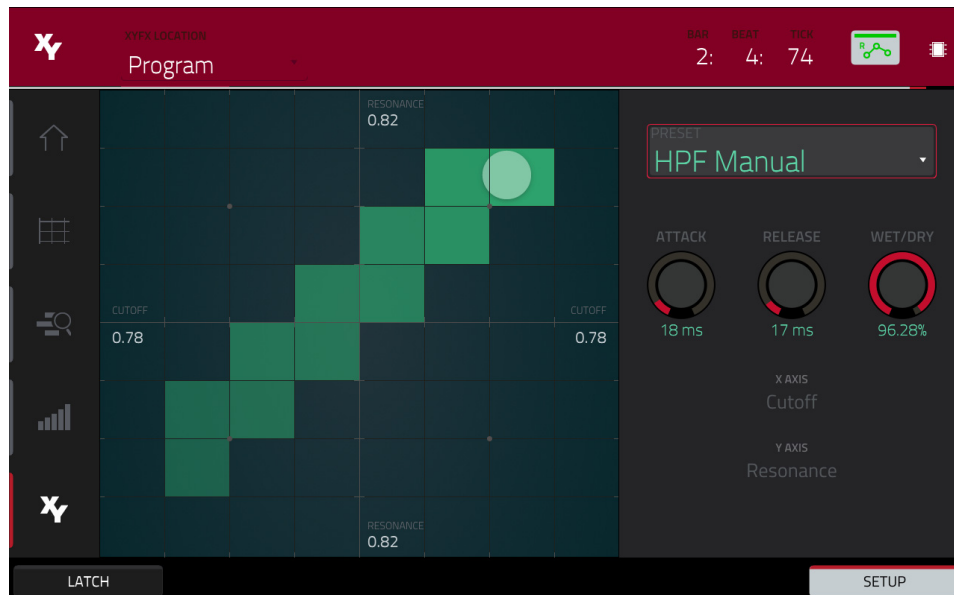
The effect you control in XYFX Mode acts like an insert effect on that program. In fact, **XYFX** is the name of the insert effect you have to load to the program before you can use this mode. Learn more about this in [General Features > Effects](#).

To enter XYFX Mode, do either of the following:

- Press **XYFX**.
- Press **Menu**, and then tap **XYFX**.

When you first enter this mode in a project, you may be prompted to load XYFX to the program. Tap **Insert XYFX** to do this.

**Note:** If you already have four insert effects loaded, you will need to clear one of the insert effect slots before doing this.



The left edge contains icons to quickly enter one of five modes. Using this strip of icons, you can easily jump between them:

- To enter **Main Mode**, tap the **house icon**.
- To enter **Grid View**, tap the **grid icon**.
- To enter **Audio Edit Mode**, tap the **waveform-and-box icon**.
- To enter the **Track View**, tap the **bars-and-magnifying-glass icon**.
- To enter the **Step Sequencer**, tap the **vertical-bars icon**.
- To enter **XYFX Mode**, tap the **XY icon**.

Use the **XYFX Location** field to select the signal to which the effects will be applied: the current program (**Program**) or a master output (a stereo pair of channels: **Output 1/2**, **Output 3/4**, etc.).

The time counter in the upper-right corner the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

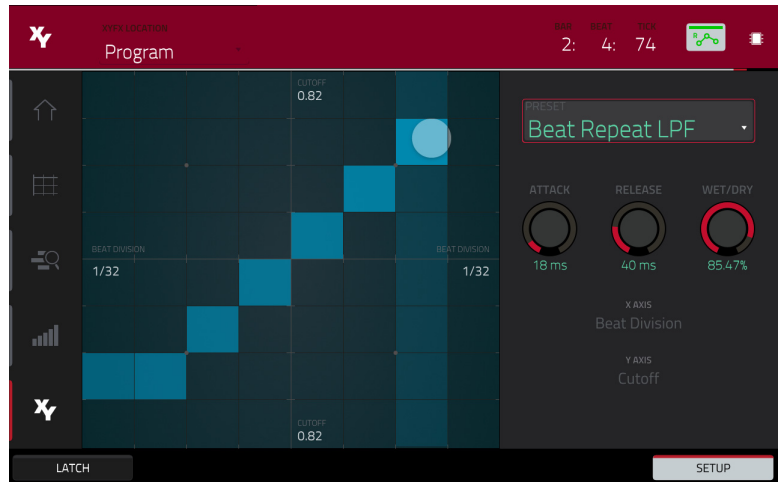
The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.



Touch or move your finger on the gridded part of the touchscreen. A marker will follow your finger to indicate the current position. The X axis is the horizontal axis, increasing in value as you move right. The Y axis is the vertical axis, increasing in value as you move up. Each axis is labeled with its assigned parameter.

When an effect has a beat division parameter, the current division will be highlighted as an entire column.

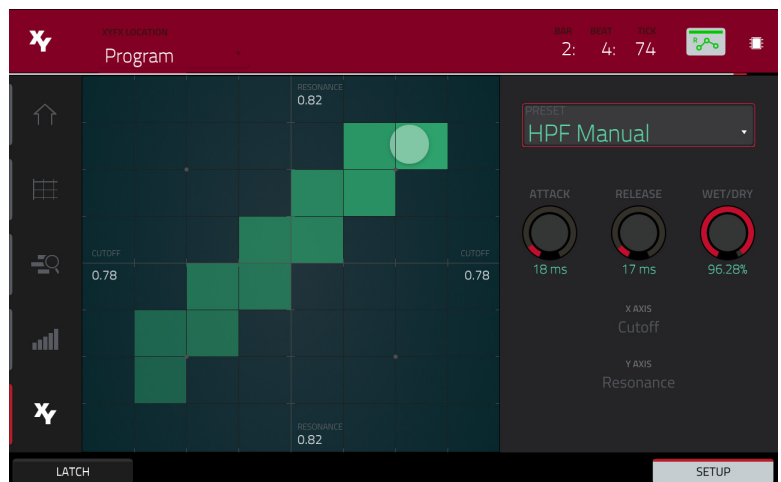
Effects are differently colored for easy visual distinction: beat-synchronized effects are **blue**, while manually controlled effects are **green**.



While touching the **XY pad**, tap **Latch** in the lower-left corner to keep the marker on the XY pad even after you release it. The marker will remain there until you touch another part of the XY pad or until you tap **Latch** again.

Use the **Setup** button to show or hide the Setup panel, which controls how the XY pad behaves.

Use the **Preset** field to select the effect you want to use in XYFX Mode.



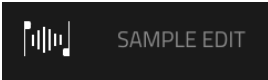
Use the **Attack** knob to set the length of the attack phase of the envelope, which is triggered when you touch the XY pad. In other words, this determines how long it takes the effect to fully respond to your touch.

Use the **Release** knob to set the length of the release phase of the envelope, which is triggered when you release the XY pad. In other words, this determines how long it takes the effect to fully deactivate after you stopping touching the XY pad.

Use the **Wet/Dry** knob to set the blend the original signal (dry) and the effect signal (wet).

The **X Axis** and **Y Axis** fields show which parameters are controlled by each axis. This varies depending on the effect you are using.

## Sample Edit Mode



Sample Edit Mode lets you edit samples using various functions.

To enter **Sample Edit Mode**, do either of the following:

- Press **Sample Edit**.
- Press **Menu**, and then tap **Sample Edit**.

To **select a sample to edit**, do any of the following:

- Use the **Sample** field at the top of the touchscreen.
- In Main Mode, tap the **Project** field at the top of the touchscreen, and then double-tap a sample in the list on the right side.
- In the Browser, tap the **Project** button with the **P/page icon** at the bottom of the touchscreen, and then double-tap a sample in the list on the right side.



To **edit the name of the sample**, tap the **keyboard icon** next to the name at the top of the touchscreen, and use the virtual keyboard that appears.

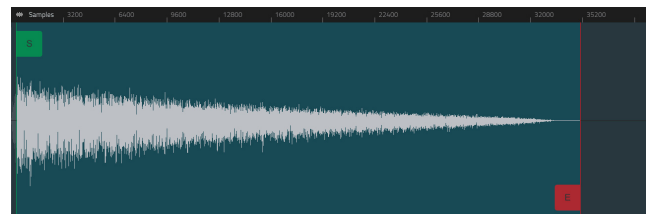


To **delete the sample**, tap the **trash-can icon** next to the name at the top of the touchscreen. In the screen that appears, you will see the programs that use this sample within your project. Tap **Delete Sample** to continue, or tap **Cancel** to return to the previous screen.

The upper half of the touchscreen shows the waveform. The lower half shows the editing controls.

The waveform display shows the “active” section of the sample waveform. Swipe left or right on the waveform to move through it.

Above the waveform is the timeline, shown in **Samples**, **Time** (in seconds and milliseconds), or **Beats**. You can select the measurement units you want to show in the [Settings](#).



To **zoom in or out**, do any of the following:

- When the **magnifying-glass icon** (in the upper-right corner) is selected, spread or pinch your fingers (respectively) on the waveform.
- Tap the **Zoom +** or **Zoom -** buttons (respectively) at the bottom of the touchscreen.
- Turn **Q-Link Knob 4 (Zoom)**.



To **scroll through the waveform**, do either of the following:

- When the **magnifying-glass icon** (in the upper-right corner) is selected, swipe the waveform left or right.
- Turn **Q-Link Knob 8 (Scroll)**.

The green marker and red marker are the start point and end point (respectively). These two points define the region of the sample that will be played.

**To move the start point or end point of the selected region**, do any of the following:

- Tap and drag its marker left or right.
- Use the **Start** or **End** fields shown below the waveform.
- Use the **first** column of **Q-Link knobs (Start X1\_\_)** to adjust the start point or the **second** column of **Q-Link knobs (End X1\_\_)** to adjust the end point. The top-most Q-Link knobs (13 and 14) provide coarse adjustment. The bottom-most Q-Link knobs (1 and 2) provide fine adjustment.

**Tip:** A recorded sample may have some silence at the beginning or end, which makes it difficult to time it correctly in a musical context. Fix this by adjusting the start point. You can also adjust end point to remove any extra silence or unwanted audio at the end. In addition to making your workflow easier, having a “tight,” well-edited sample can enhance your production or performance.

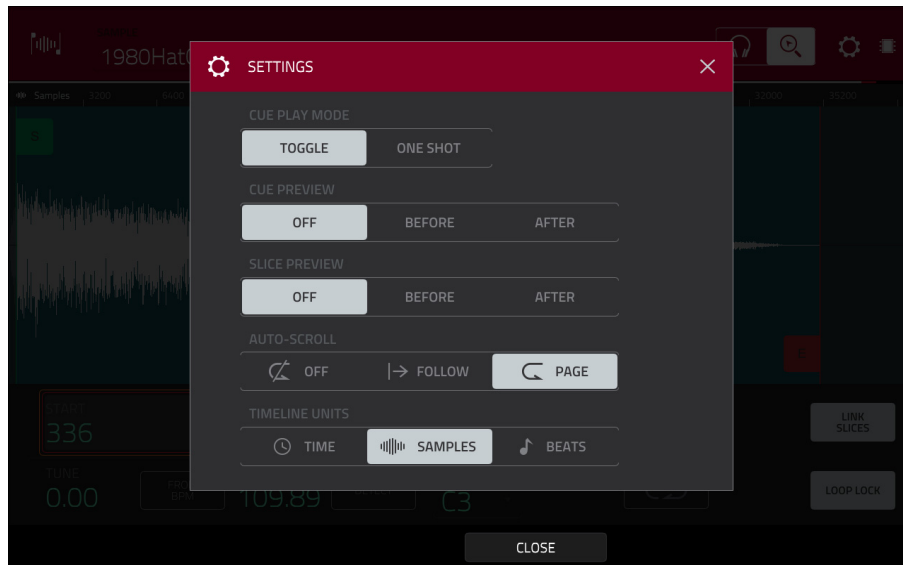
You can use Sample Edit Mode in three different ways: **Trim Mode**, **Chop Mode**, or **Program Mode**. The options for each mode are slightly different. Please refer to the following [Trim Mode](#), [Chop Mode](#), and [Program Mode](#) parts of this chapter to learn how each works. Before using these modes, though, you may want to configure your settings—see the following [Settings](#) chapter to do this.

**Tip:** You can use Trim Mode for a specific slice of the sample, previously created and selected in Chop Mode. This allows for a more detailed view of a single slice than in Chop Mode and gives you more options for auditioning the slice. You can easily switch between Trim Mode and Chop Mode while doing this.

**To use both Trim Mode and Chop Mode to edit a sample slice:**

1. Tap **Trim/Chop** at the bottom of the touchscreen so it says **Chop**.
2. Set all fields as desired to create your sample slices.
3. Select the desired slice.
4. Tap **Trim/Chop** at the bottom of the touchscreen so it says **Trim**. The region you are now editing is indicated by the normal start point and end point markers rather than slice markers.
5. Tap **Trim/Chop** at any time to return to Chop Mode.

## Settings



The Settings window lets you configure certain Sample Edit Mode settings.

**To view the Settings**, tap the **gear icon**.

Use the **Cue Play Mode** selector to set how the cue playhead will play audio.

**One Shot:** Tapping **Play Cue** will play the entire sample from the cue playhead.

**Toggle:** Tapping **Play Cue** once will start playback from cue playhead. Tapping it once more will stop playback.

Use the **Cue Preview** selector to set if any audio plays as you move the cue playhead. As you move the cue playhead through the sample waveform, you can set it to play the small part of the sample before the cue playhead (**Before**), play the small part of the sample after the cue playhead (**After**), or not play at all (**Off**). You can also set this in your overall Preferences (see [General Features > Menu > Preferences > Other](#)).

Use the **Slice Preview** selector to set if any audio plays as you move a slice marker. As you move the slice marker through the sample waveform, you can set it to play the small part of the sample before the slice marker (**Before**), play the small part of the sample after the slice marker (**After**), or not play at all (**Off**). You can also set this in your overall Preferences (see [General Features > Menu > Preferences > Other](#)).

Use the **Auto-Scroll** selector to set how the screen behaves relative to the audio playhead.

**Follow:** Depending on the zoom setting, the waveform will scroll along in the background, keeping the audio playhead centered.

**Page:** The waveform display will move to the “next page” to follow the audio playhead.

**Off:** The waveform display will not move at all.

These functions also apply to the sample waveform in Grid View.

Use the **Timeline Units** selector to set the measurement units shown above the sample waveform. You can select one of the following options:

**Time:** hours:minutes:seconds:frames

**Samples:** number of samples

**Beats:** bars:beats:ticks

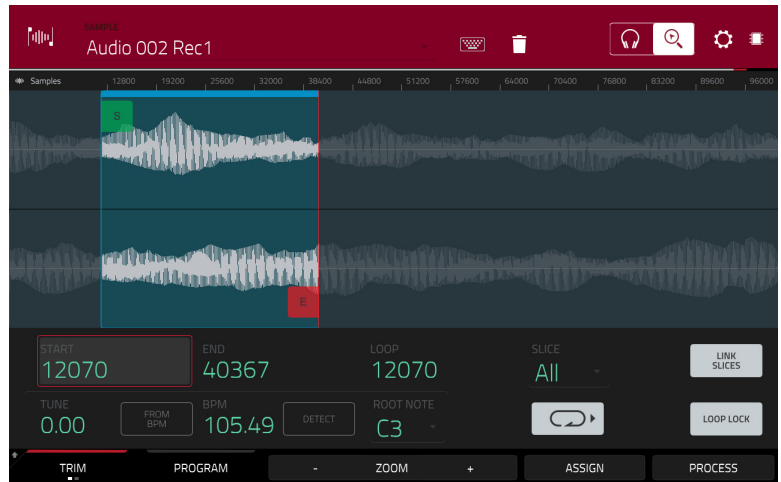


## Trim Mode

We recommend using Trim Mode to simply crop the end/ends from a sample.

To enter **Trim Mode**, tap the **Trim/Chop** button in the lower-left corner so it says **Trim**.

Use the **Start** and **End** fields to set the position of the start point and end point of the sample (respectively). Alternatively, tap and drag the start (**S**) or end (**E**) marker left or right, or use the **first** column of **Q-Link knobs** (**Start X1\_\_**) to adjust the start point or the **second** column of **Q-Link knobs** (**End X1\_\_**) to adjust the end point.



Trim Mode includes a loop function. When on, the region of the sample between the loop point and end point will repeat. This is useful when trying to find an ideal spot to begin the sample. The loop cannot be earlier than the start point.

To adjust the loop point, do any of the following:

- Use the **Loop** field.
- Tap and drag the start (**S**) marker (if **Loop Lock** is on) or the **loop** marker (if **Loop Lock** is off).
- Use the **first** column of **Q-Link knobs** (**Start X1\_\_**; if **Loop Lock** is on) or the **third** column of **Q-Link knobs** (**Loop X1\_\_**; if **Loop Lock** is off). The top-most Q-Link knobs (13 and 15) provide coarse adjustment. The bottom-most Q-Link knobs (1 and 3) provide fine adjustment.

To turn **Loop Lock** on or off, tap the **Loop Lock** button. When on, the loop point is the same as the start point. When off, the loop point is independent from the start point and indicated by a separate loop marker.

To turn the loop function on or off, tap the **Loop** button to cycle between the four modes:

**Off:** The sample will not loop.

**Forward:** When the loop reaches its end point, it will start playing again from the loop point.

**Reverse:** When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will return to the end point and continue playing in reverse.

**Alternating:** When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will start playing forward again from the loop point.

To switch between **Forward** and **off**, press and hold **Shift**, and then tap **Loop** at the bottom of the touchscreen.



Use the MPC X pads to play certain parts of the selected sample:

Play Loop	Play to Loop Start	Play from Loop Start	Play Loop Continuous
<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
Play All	Play Sample (One Shot)	Play Sample (Note On)	No function
<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>
Play from Start (Note On)	Play to Start (Note On)	Play to End (Note On)	Play from End (Note On)
<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>
Play from Start (One Shot)	Play to Start (One Shot)	Play to End (One Shot)	Play from End (One Shot)
<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>

**Play Sample (One Shot) (Pad 10)** plays the sample once from the start point to the end point. Press the pad once to play it.

**Play Sample (Note On) (Pad 11)** plays the sample once from the start point to the end point. Press and hold the pad to play it, and release the pad to stop playing it. Alternatively, select the **headphones icon** in the upper-right corner, and then tap and hold your finger on the waveform.

**Play Loop Continuous (Pad 16)** plays the sample repeatedly using the mode set by the **Loop** button (**Forward**, **Reverse**, or **Alternating**; if the **Loop** button is **off**, the sample will loop forward repeatedly).

**Play Loop (Pad 13)** plays the sample repeatedly using the mode set by the **Loop** button (**Forward**, **Reverse**, or **Alternating**; if the **Loop** button is **off**, the sample will loop forward repeatedly). Press and hold the pad to play it, and release the pad to stop playing it.

**Play to Loop Start (Pad 14)** plays the part of the sample just before the loop point. Press and hold the pad to play it, and release the pad to stop playing it.

**Play from Loop Start (Pad 15)** plays the sample from the loop point to the end of the sample regardless of the end point. Press and hold the pad to play it, and release the pad to stop playing it.

**Play All (Pad 9)** plays the entire sample.

**Pads 1–4** have the same respective functions as **Pads 5–8**, but **Pads 1–4** play the sample part as “**One Shots**” (pressing the pad once will play the entire part) while **Pads 5–8** play the sample part as “**Note Ons**” (pressing the pad and holding it will play the part; releasing it will stop playback):

**Play from Start (Pad 1, Pad 5)** plays the sample from the start point to the end point.

**Play to Start (Pad 2, Pad 6)** plays the part of the sample just before the start point to the start point.

**Play to End (Pad 3, Pad 7)** plays the part of the sample just before the end point to the end point.

**Play from End (Pad 4, Pad 8)** plays the part of the sample from the end point to the end of the sample.

Use the **Tune** field to transpose the sample up or down from its original pitch.

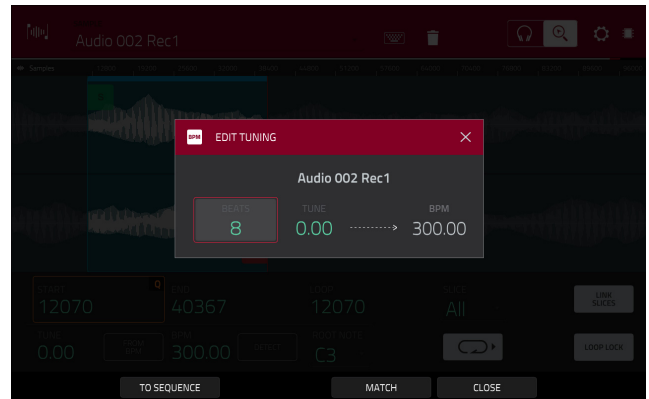
Tap **From BPM** to open the **Edit Tuning** window, which lets you tune a sample to the current sequence.

Use the **Beats** field to match the number of beats in the sequence.

**To tune the sample to the sequence**, tap **Match**. The **Tune** field will adjust automatically and close the window. The sample is now tuned to the sequence.

**To tune the sample to the sequence and adjust the sequence tempo**, tap **To Sequence**. This is the same as tapping Match but it also changes the sequence's tempo to the BPM shown in the Tempo field on the right.

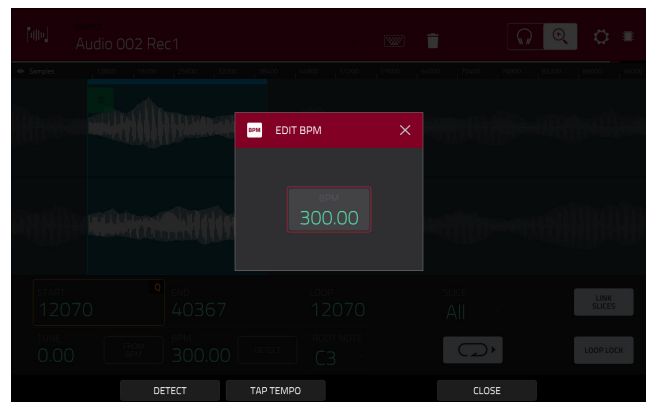
**To close the window**, tap **Close**.



**To enter a tempo manually**, use the **BPM** field.

**To detect the tempo automatically**, tap **Detect**. In the **Edit BPM** window that appears, you can do any of the following:

- Use the **BPM** field to enter a tempo manually.
- Tap **Detect** to detect the tempo automatically.
- Tap **Tap Tempo** at the bottom of the touchscreen at the desired rate to use it as the tempo. You can play a sequence in the background to help with your timing.
- Tap **Close**, the **X**, or anywhere outside the window to close it.



Use the **Root Note** field to set the root note of the sample. This defines which note will play the sample at its original pitch when in a keygroup program.

**To select a slice to edit**, do either of the following (after you have created slices in Chop Mode):

- Use the **Slice** field.
- Turn **Q-Link Knob 16 (Select Slice)**.

When **Link Slices** is enabled (after you have created slices in Chop Mode), changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample.

**To enable or disable this feature**, tap the **Link Slices** button.

**Important:** **Link Slices** must be disabled to make slices nonsequential, noncontiguous, or overlapping.

**0 Snap** forces start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample.

**To enable or disable 0 Snap**, press and hold **Shift**, and then tap **0 Snap** at the bottom of the touchscreen.

**To enable or disable the loop function**, press and hold **Shift**, and then tap **Loop** at the bottom of the touchscreen. This switches the loop function between **Forward** and **off**. The loop function is described [earlier](#).

## Assigning Samples

You can assign your new sample directly to a pad from Trim Mode.

**To assign a sample**, tap **Assign** at the bottom of the touchscreen to open the Assign Sample window.

**Important:** Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

If you set the **Assign To** field to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

Use the **Slice Type** field to select how the pad's layer settings will be set when the slice is assigned to it (see [Program Edit Mode](#) to learn more about the parameters mentioned below):

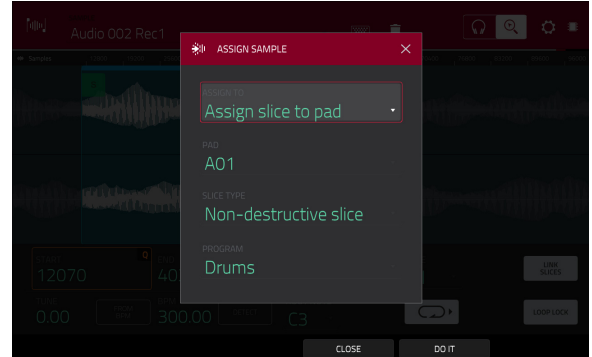
**Non-Destructive Slice:** The pad's **Slice** setting will be set to the slice number.

**Pad Parameters:** The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Program** field to specify the program to which you want to add the slice.

**To assign the sample**, tap **Do It**.

**To cancel the operation**, tap **Close**, the **X**, or anywhere outside the window.



If you set the **Assign To** field to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

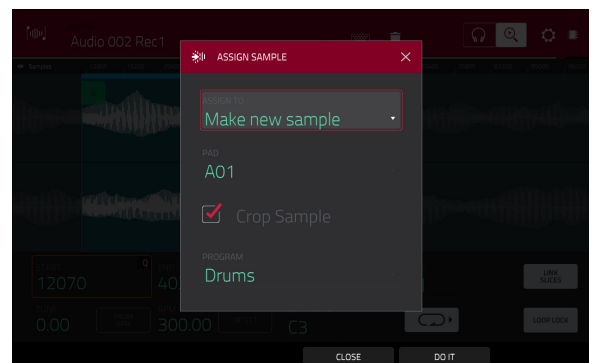
Check the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box unchecked to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Program** field to specify the program to which you want to add the slice.

**To assign the sample**, tap **Do It**.

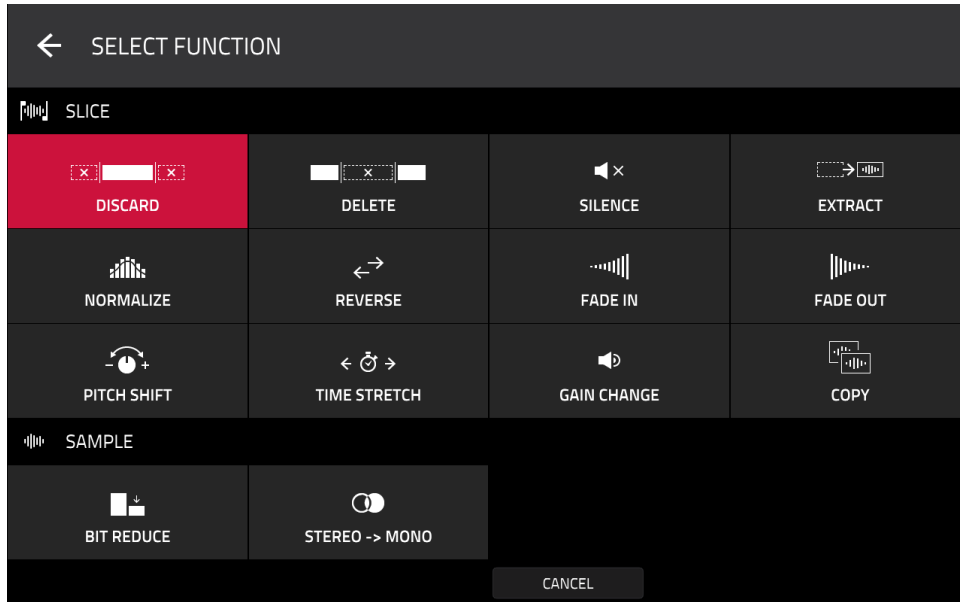
**To cancel the operation**, tap **Close**, the **X**, or anywhere outside the window.



## Processing Slices & Samples

Tap the **Process** button to open the Process window, where you can select an editing option for the sample.

Use the **Function** field to select an editing process. Double-tap it or tap **Function** at the bottom of the touchscreen to open the Function window, which gives an overview of all available editing processes.



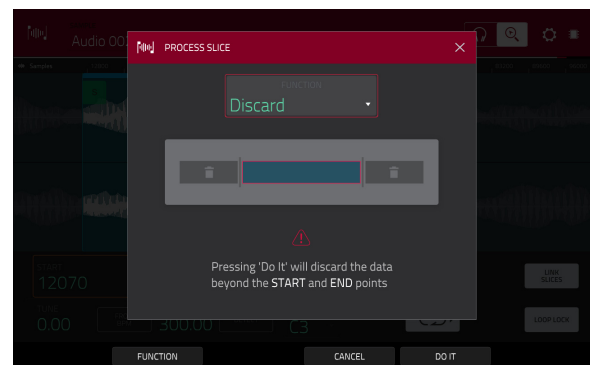
You can use any of these functions as described below.

**To return to Sample Edit Mode**, tap **Cancel**.

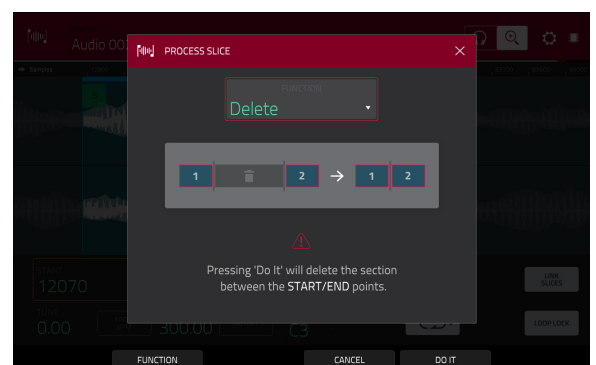
**To return to the Process window**, tap the top of the touchscreen.

**Note:** All **Slice** processes will affect only the part of the sample between the start point and the end point. The **Sample** processes (**Bit Reduce** and **Stereo -> Mono**) will affect the **entire** sample regardless of its start point or end point.

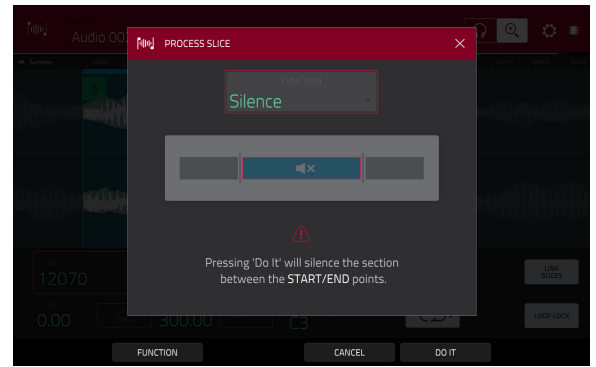
The **Discard** process deletes the regions before the start point and after the end point.



The **Delete** process deletes the region between the start point and end point and closes the gap between them.



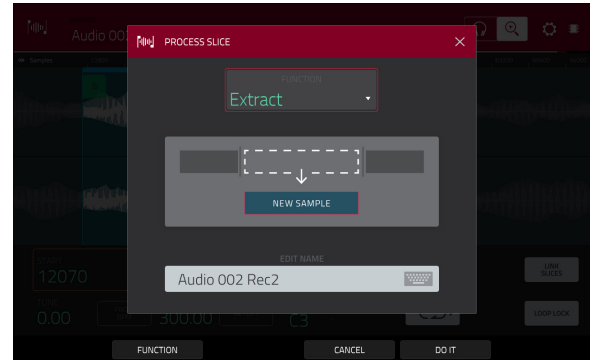
The **Silence** process replaces the region between the start point and end point with silence.



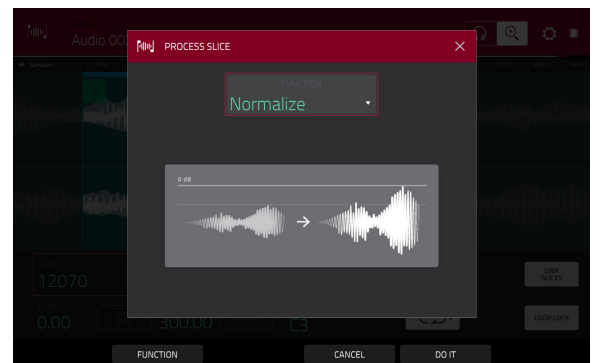
The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample in your current project.

Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample.

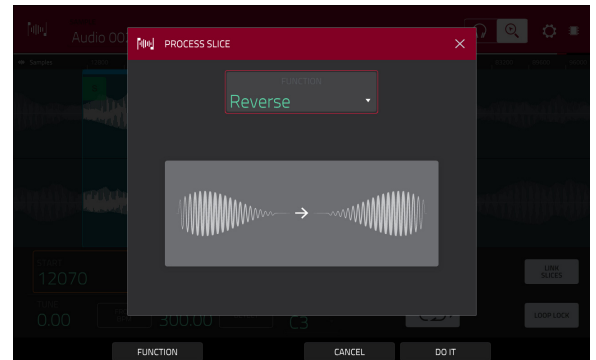
**Tip:** This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with samples with a wide range of amplitudes.



The **Reverse** process reverses the region between the start point and end point.

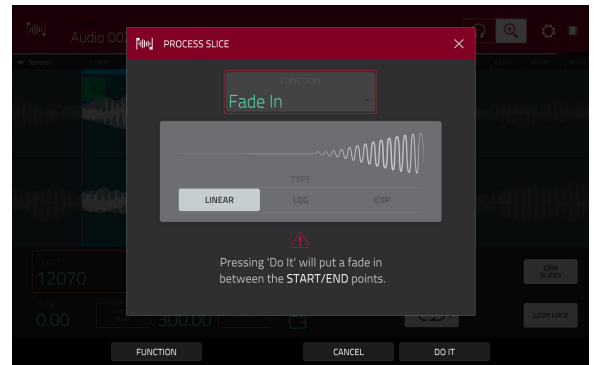


The **Fade In** process sets a fade-in between the start point and end point. The following types are available:

**Linear** fades the audio in with a linear curve—a straight line between the start and end.

**Log** fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.

**Exp** fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.

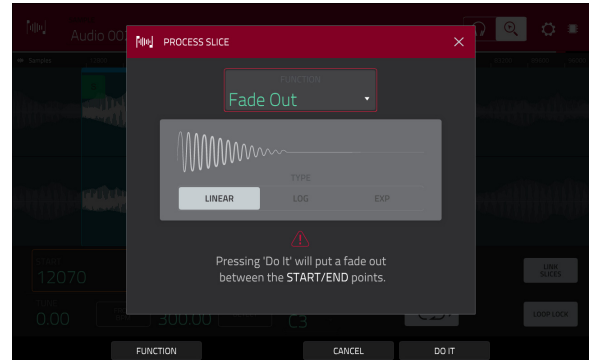


The **Fade Out** process sets a fade-out between the start point and end point. The following types are available:

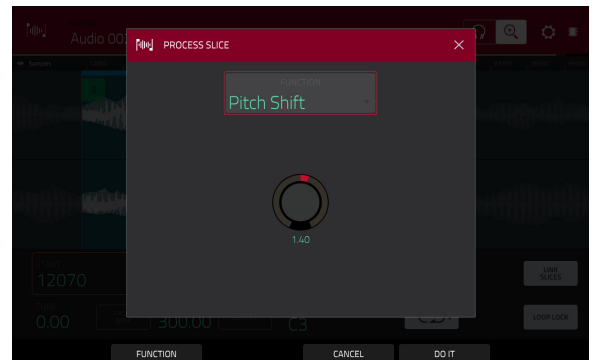
**Linear** fades the audio out with a linear curve—a straight line between the start and end.

**Log** fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.

**Exp** fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



The **Pitch Shift** process changes the pitch of the sample without changing its length. This lets you set the sample's pitch to your sequence without affecting the sample's tempo or duration. You can adjust it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more extreme settings.

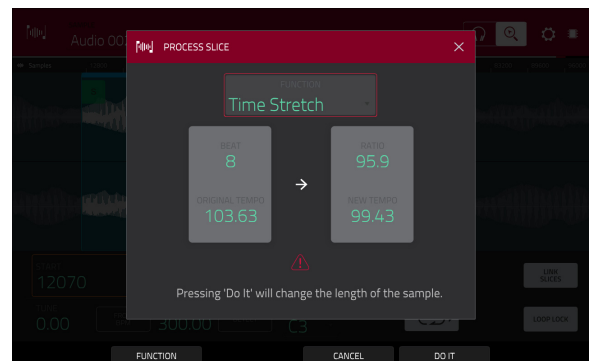


The **Time Stretch** process lengthens or shortens the sample without changing its pitch. This is useful for matching the durations of two samples with different pitches. You can enter the original tempo of the sample and the desired tempo after processing.

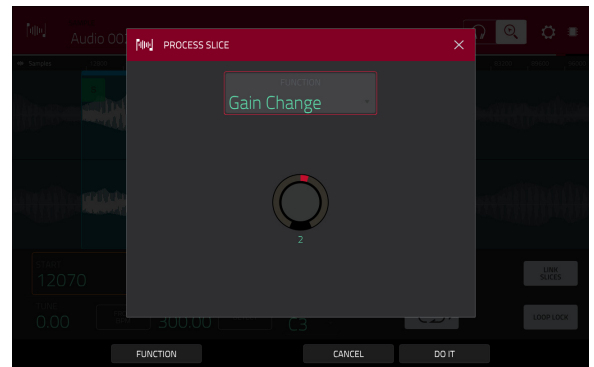
Use the **Beat** field to set the desired value number of beats.

Use the **New Tempo** field to set the new tempo. The **Ratio** field will then automatically show the time stretch factor.

Alternatively, to adjust the ratio instead, use the **Ratio** field to set the desired ratio. The **New Tempo** field will then change automatically based on the new time stretch factor.

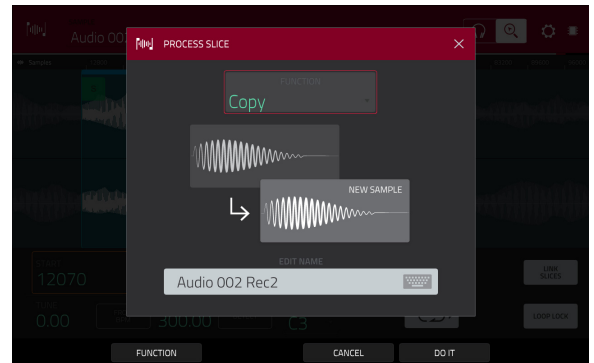


The **Gain Change** process raises or lowers the volume of the sample. You can adjust it up to 18 dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!



The **Copy** process saves a copy of the sample.

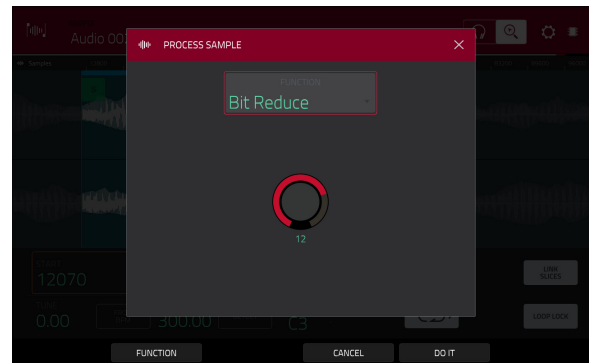
Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample. Otherwise, the process will add a consecutive number after the sample name.



The **Bit Reduce** process lowers the bit resolution of a sample, effectively reducing its degree of faithful reproduction. You can reduce it down to **1 bit**. (The sound is similar to the Resampler effect, but Bit Reduce will permanently alter the sample.)

**Tip:** Use this on drum loops to get a dirty, “old-school” sizzle but with a digital “edge.”

**Note:** This process affects the **entire** sample regardless of its start point or end point.



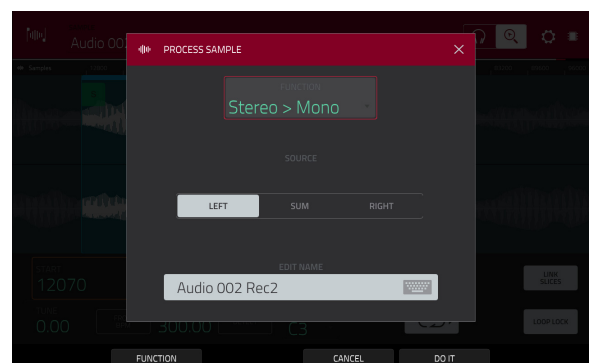
The **Stereo -> Mono** process converts a stereo sample to a new mono sample and saves it as a new sample.

Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample. Otherwise, the process will add a consecutive number after the sample name.

The following options are available:

- **Left** will convert the left channel only.
- **Right** will convert the right channel only.
- **Sum** will combine the left and right audio channels to a single mono channel.

**Note:** This process affects the **entire** sample regardless of its start point or end point.

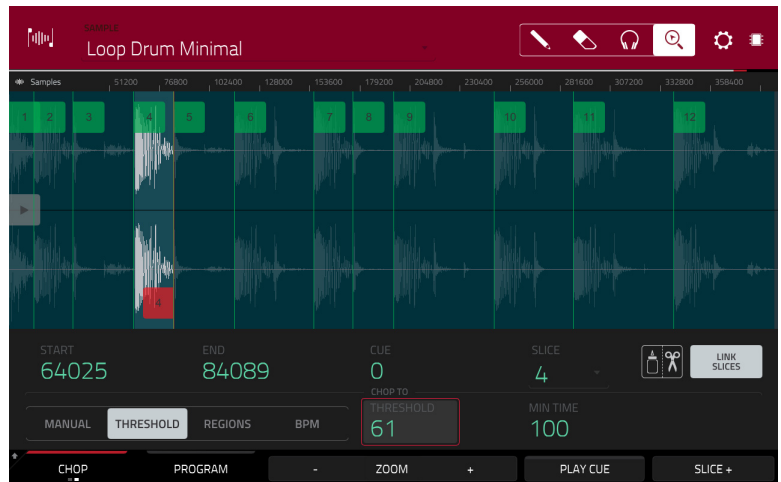


## Chop Mode

Whereas Trim Mode crops only the end/ends off of a sample, Chop Mode divides the sample into multiple regions called **slices**. We recommend using Chop Mode when working with a long sample with different sounds throughout (e.g., a drum loop or a long melodic or harmonic passage).

To enter Chop Mode, tap the **Trim/Chop** button in the lower-left corner so it says **Chop**.

Use the **Start** and **End** fields to set the position of the start point and end point (respectively) of the currently selected slice. Alternatively, tap and drag the start (**S**) or end (**E**) marker left or right, or use the **first** column of **Q-Link knobs (Start X1\_\_)** to adjust the start point or the **second** column of **Q-Link knobs (End X1\_\_)** to adjust the end point.



Use the selector in the lower-left corner of the touchscreen to choose how you want to use Chop Mode:

### Manual

This method lets you insert slices at locations you select.

### Threshold

This method uses an adjustable detection algorithm that derives the number of slices created from the volume levels present in the sample.

Use the **Threshold** field to set the threshold level. Alternatively, turn **Q-Link Knob 11 (Threshold)**. The higher the selected value, the more slices will be created.

Use the **Min Time** field to set the minimum length of a slice in milliseconds.

### Regions

This method divides a sample into several slices of equal length.

Use the **Regions** field to set how many regions the sample will be divided into. Alternatively, turn **Q-Link Knob 11 (Num Regions)**. The higher the selected value, the more slices will be created.

### BPM

This method divides a sample into several slices based on the tempo (beats per minute).

Use the **Bars** field to set how many bars are in the sample. Alternatively, turn **Q-Link Knob 11 (Bars)**.

Use the **Beats** field to set how many beats are in each bar. Alternatively, turn **Q-Link Knob 7 (Beats)**.

Use the **Time Div** field to set a note division. Alternatively, turn **Q-Link Knob 3 (Time Div)**. The slice markers will be placed according to this setting. You can select **1/4**, **1/8**, **1/16**, or **1/32**. (In most cases, you should set this parameter to **1/16**.)



**To play a slice**, do either of the following:

- Press the **pad** that corresponds to the slice. If your sample has more than 16 slices, use the additional pad banks.
- When the **headphones icon** (in the upper-right corner) is selected, tap a **slice** in the waveform.

When the **One Shot** feature is enabled, you can press a pad once to play the entire slice. When this is disabled, pressing the pad and holding it will play the slice; releasing it will stop playback.

**To enable or disable One Shot**, press and hold **Shift**, and then tap **One Shot**.

**To select a slice to edit**, do any of the following:

- Use the **Slice** field.
- Turn **Q-Link Knob 16 (Select Slice)**.
- When the **headphones icon** (in the upper-right corner) is selected, tap a **slice** in the waveform.

**To add a slice at the current playhead position**, tap **Slice+** at the bottom of the touchscreen. You can do this at any point during sample playback.

**To insert a slice marker during sample playback**, press an **unlit pad** (usually **Pad 1**) to start playback of the sample, and then press an **unlit pad** during playback to place a slice marker at each location of the playhead. (If you press a lit pad, playback will restart from that pad's corresponding slice marker.) The number of the pad that is lit **green** is the number of the most-recently inserted slice marker. The numbers of the pads that are lit **yellow** are the numbers of the slice markers that are already inserted.

**To split or combine slices**, tap the **glue-and-scissors icon**. In the **Split/Combine Region** screen that appears, tap one of the following buttons:

**Split**: This splits the currently selected region into two equal slices.

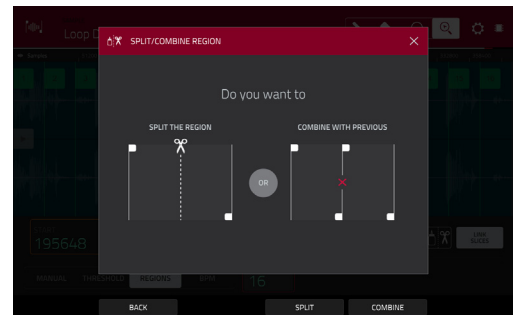
**Combine**: This combines the currently selected region with the one before it.

**Back**: This closes the window.

When **Link Slices** is enabled, changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample.

**To enable or disable this feature**, tap the **Link Slices** button.

**Important:** **Link Slices** must be disabled to make slices nonsequential, noncontiguous, or overlapping.



**To remove all slices from a sample**, press and hold **Shift** and tap **Clear All**.

The cue playhead is useful when manually inserting slice markers. You can set its position and behavior to suit your workflow.

Use the **Cue** field to adjust the position of the cue playhead. Alternatively, tap and drag the translucent marker with the triangle (▶).

**To play the sample from the cue playhead**, tap **Play Cue** at the bottom of the touchscreen.

**To create a slice marker at the cue playhead position**, tap **Slice+** at the bottom of the touchscreen.

**To set how the cue playhead behaves**, use the **Settings** window (described [earlier](#)).

**0 Snap** forces start points and end points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample.

**To enable or disable 0 Snap**, press and hold **Shift**, and then tap **0 Snap** at the bottom of the touchscreen.

## Converting or Assigning Slices

You can assign your new sample directly to a pad from Chop Mode. You can also convert it into a new program or patched phrase.

**To convert or assign a sample**, press and hold **Shift**, and then tap **Convert** at the bottom of the touchscreen to open the Convert or Assign Slices window.

If you set the **Convert To** field to **New [program type] program using slices**, this will create a new program and assign the sample's slices to its pads. The pads will simply refer to the slices in this sample instead of creating new samples. This is useful for reducing clutter in your project. The new program will be named after the sample and appended with **ch**.

Use the **Slice Type** field to select how each pad's layer settings will be set when the slices are assigned to them (see [Program Edit Mode](#) to learn more about the parameters mentioned below):

- **Non-Destructive Slice:** Each pad's **Slice** setting will be set to the slice number.
- **Pad Parameters:** Each pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** parameters will be set to the slice's start point and end point values, and the **Loop Pos** parameter will be set to the slice's start point but with **Pad Loop** deactivated.

Check the **Create Events** box to automatically create a new track for the new program in which each pad plays its corresponding slice in ascending sequence by pad number.

If **Create Events** is checked, use the **Bars** field to set how many bars the slices' events will occupy.

**To convert the sample**, tap **Do It**.

**To cancel the operation**, tap **Close**.

If you set the **Convert To** field to **New clip program**, this will create a new clip program and assign the sample's slices to its pads as clips. The pads will simply refer to the slices in this sample instead of creating new samples. This is useful for reducing clutter in your project. The new program will be named after the sample and appended with **ch**.

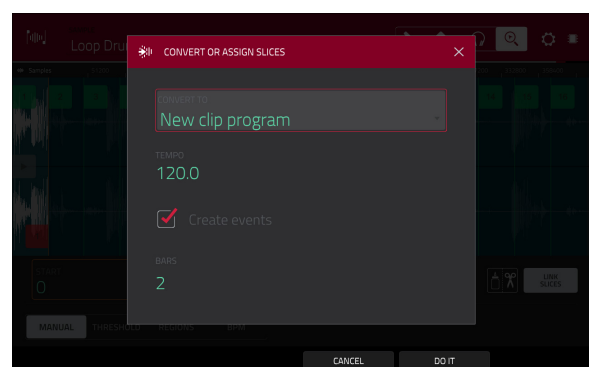
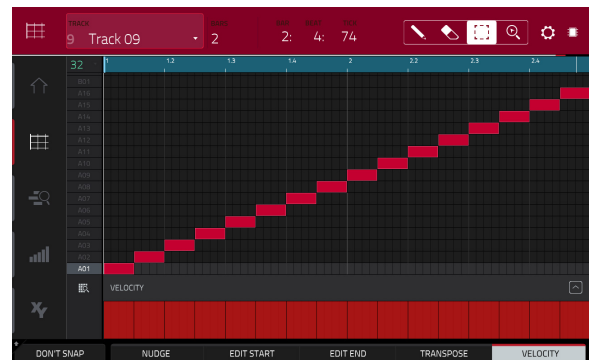
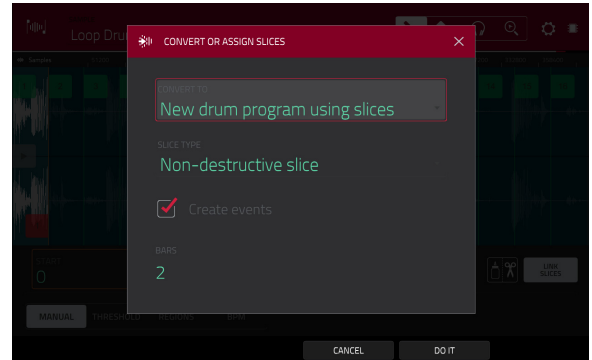
Use the **Tempo** field to enter the tempo of the clips in the new program.

Check the **Create Events** box to automatically create a new track for the new program in which each pad plays its corresponding slice in ascending sequence by pad number.

If **Create Events** is checked, use the **Bars** field to set how many bars the slices' events will occupy.

**To convert the sample**, tap **Do It**.

**To cancel the operation**, tap **Close**.



If you set the **Convert To** field to **New program with new samples**, this will create a new sample from each slice and assign them to pads in a new program.

The new program will be named after the sample and appended with **ch**. The new samples will be appended with **SI-#** (where # is a consecutive number).

Check the **Crop Samples** box to delete the unused parts from the sample when they are created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box unchecked to keep the unused parts of the samples when they're created and assigned. This way, you will still be able to edit the entire samples further even though you are using only part of them at the moment.

By default, this option already will create a new program. You can **uncheck** the **Create New Program** box to convert each slice into a sample that is placed in the project's sample pool but not assigned to a program or pad.

If **Create New Program** is checked, check the **Create Events** box to automatically create a new track in which each pad plays its corresponding slice in ascending sequence by pad number.

If **Create Events** is checked, use the **Bars** field to set how many bars the slices' events will occupy.

To convert the sample, tap **Do It**.

To cancel the operation, tap **Close**.

If you set the **Convert To** field to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.

**Important:** Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

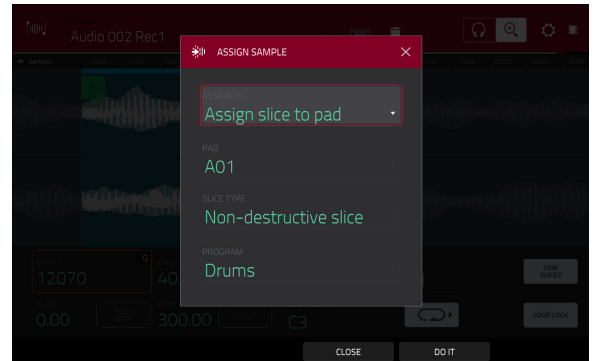
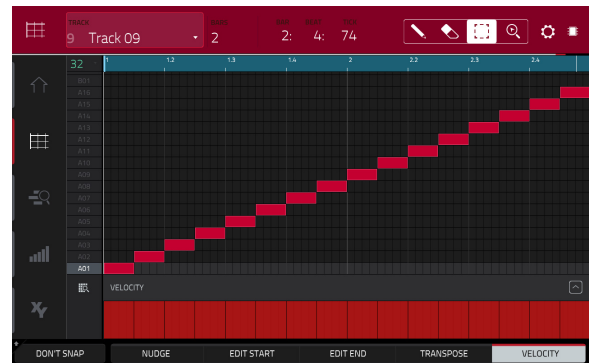
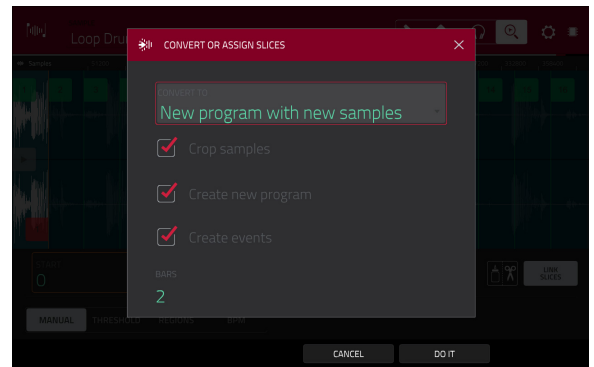
Use the **Slice Type** field to select how the pad's layer settings will be set when the slice is assigned to it (see [Program Edit Mode](#) to learn more about the parameters mentioned below):

- **Non-Destructive Slice:** The pad's **Slice** setting will be set to the slice number.
- **Pad Parameters:** The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Program** field to specify the program to which you want to add the slice.

To convert the sample, tap **Do It**.

To cancel the operation, tap **Close**.



If you set the **Convert To** field to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)

**Important:** Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

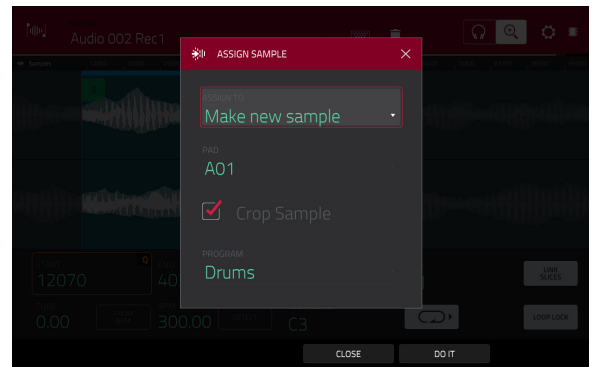
Check the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box unchecked to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Program** field to specify the program to which you want to add the slice.

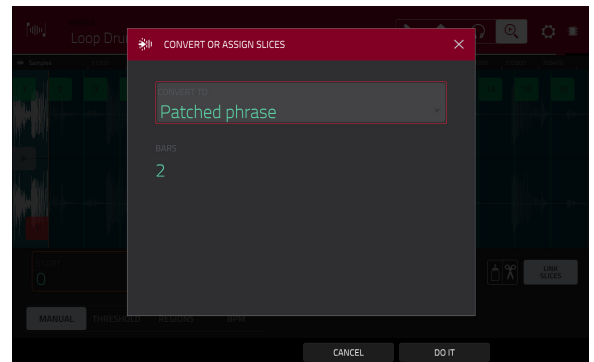
**To convert the sample**, tap **Do It**.

**To cancel the operation**, tap **Close**.



If you set the **Convert To** field to **Patched phrase**, this will create a new sample that will play based on the tempo of your Sequence, and places it in the current project. The patched phrase will have the same name as the original sample but appended with **pp** and will use a different icon when viewing your project information.

Use the **Bars** field to set how many bars long the patched phrase is meant to be.

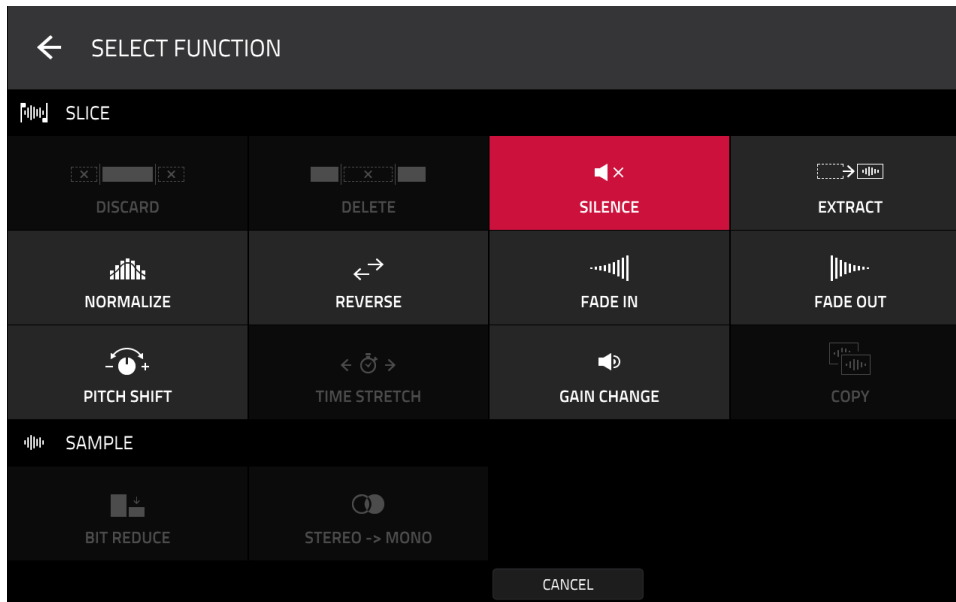


## Processing Slices

Press and hold **Shift**, and then tap the **Process** button to open the Process window, where you can select an editing option for the currently selected slice. (This has fewer options than Trim Mode. Unavailable ones are darkened.)

Use the **Function** field to select an editing process. Double-tap it or tap **Function** at the bottom of the touchscreen to open the Function window, which gives an overview of all available editing processes.

**Important:** Chop Mode is non-destructive: You can choose the slice/edit behavior without destroying your original sample, giving you more control over sample playback; you can save your sliced sample and but also reuse all of the slice data in another project. See the [Program Edit Mode](#) chapter to learn more about setting a pad to play the entire sample, a specific slice of a sample, or a specific region of the sample (independent of its slice markers).



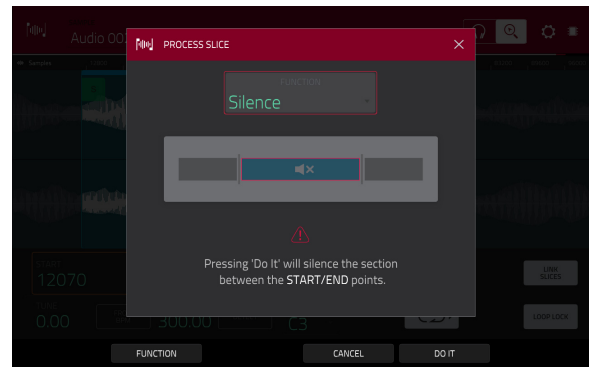
You can use any of these functions as described below.

**To return to Sample Edit Mode**, tap **Cancel**.

**To return to the Process window**, tap the top of the touchscreen.

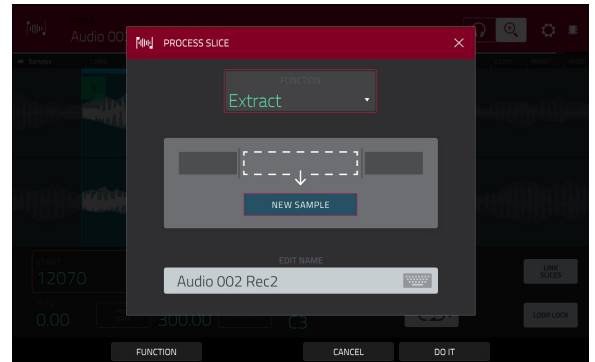
**Note:** All processes here will affect only the currently selected slice.

The **Silence** process replaces the region between the start point and end point with silence.

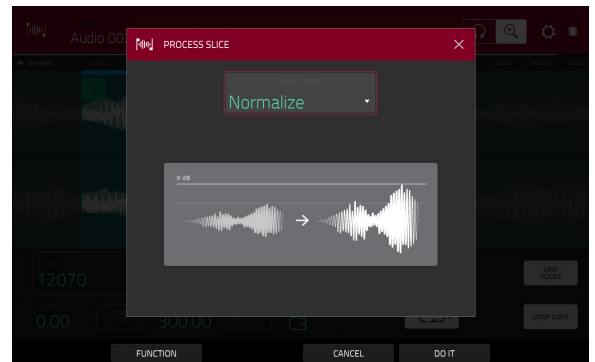


The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample (with a name you enter) in your current project.

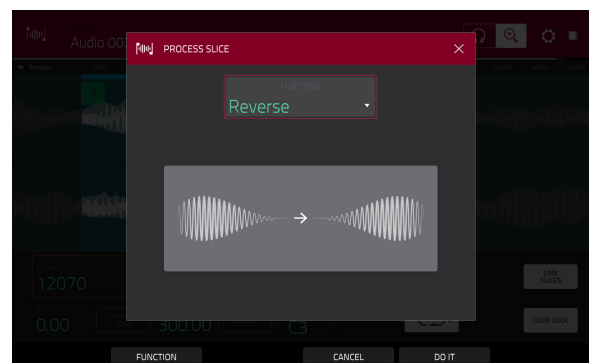
**Tip:** This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with samples with a wide range of amplitudes.



The **Reverse** process reverses the region between the start point and end point.

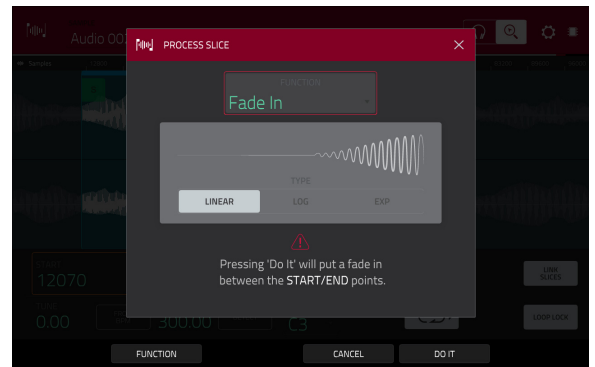


The **Fade In** process sets a fade-in between the start point and end point. The following types are available:

**Linear** fades the audio in with a linear curve—a straight line between the start and end.

**Log** fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.

**Exp** fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.

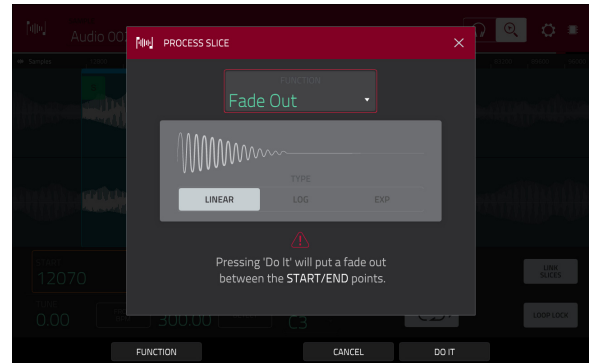


The **Fade Out** process sets a fade-out between the start point and end point. The following types are available:

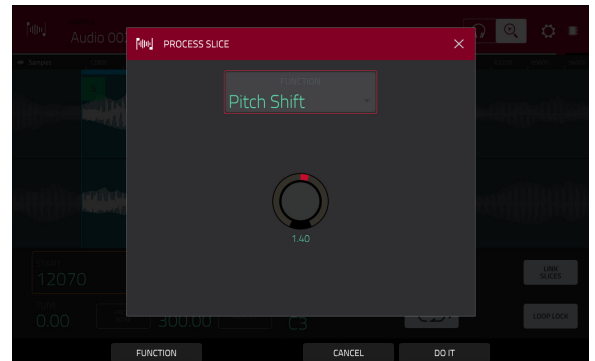
**Linear** fades the audio out with a linear curve—a straight line between the start and end.

**Log** fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.

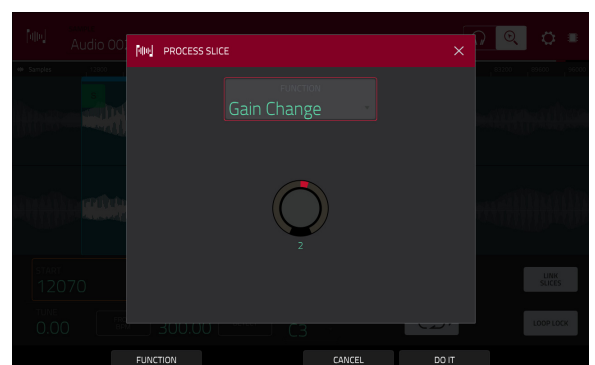
**Exp** fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



The **Pitch Shift** process changes the pitch of the sample without changing its length. This lets you set the sample's pitch to your sequence without affecting the sample's tempo or duration. You can adjust it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more extreme settings.



The **Gain Change** process raises or lowers the volume of the sample. You can adjust it up to 18 dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!



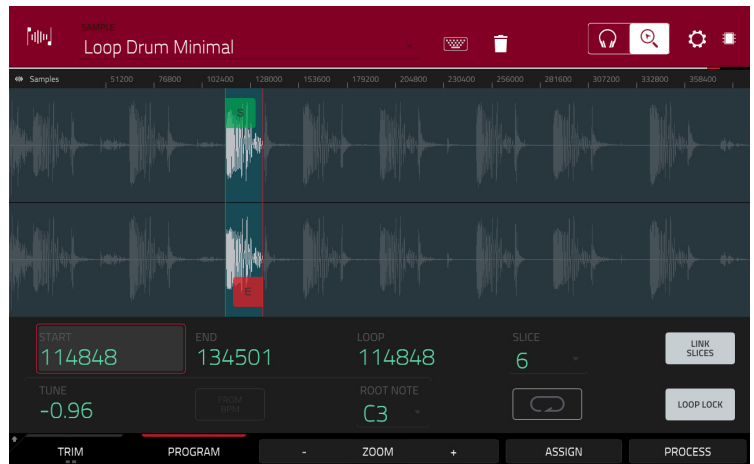


## Program Mode

Program Mode lets you edit a sample in the context of the program in which you'll use it. You can adjust the pad parameters as though you were in Program Edit Mode, auditioning and hearing how it will sound in the program's audio path.

**To enter Program Mode**, tap the **Program** button at the bottom of the touchscreen. The pads will show their assigned samples in the current Program.

Use the **Start** and **End** fields to set the position of the start point and end point of the sample (respectively). Alternatively, tap and drag the start (**S**) or end (**E**) marker left or right, or use the **first** column of **Q-Link knobs (Start X1\_\_)** to adjust the start point or the **second** column of **Q-Link knobs (End X1\_\_)** to adjust the end point.



Program Mode includes a loop function. When on, the region of the sample between the loop point and end point will repeat. This is useful when trying to find an ideal spot to begin the sample. The loop cannot be earlier than the start point.

**To adjust the loop point**, do any of the following:

- Use the **Loop** field.
- Tap and drag the start (**S**) marker (if **Loop Lock** is on) or the **loop** marker (if **Loop Lock** is off).
- Use the **first** column of **Q-Link knobs (Start X1\_\_)**; if **Loop Lock** is on) or the **third** column of **Q-Link knobs (Loop X1\_\_)**; if **Loop Lock** is off). The top-most Q-Link knobs (13 and 15) provide coarse adjustment. The bottom-most Q-Link knobs (1 and 3) provide fine adjustment.

**To turn Loop Lock on or off**, tap the **Loop Lock** button. When on, the loop point is the same as the start point. When off, the loop point is independent from the start point.

**To turn the loop function on or off**, tap the **Loop** button to cycle between the four modes:

**Off:** The sample will not loop.

**Forward:** When the loop reaches its end point, it will start playing again from the loop point.

**Reverse:** When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will return to the end point and continue playing in reverse.

**Alternating:** When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will start playing forward again from the loop point.

**To switch between Forward and off**, press and hold **Shift**, and then tap **Loop** at the bottom of the touchscreen.

Tap each **pad** to hear its sample/samples. The sample on its first layer will automatically appear in the waveform display for editing.

Use the **Tune** field to transpose the sample up or down from its original pitch.



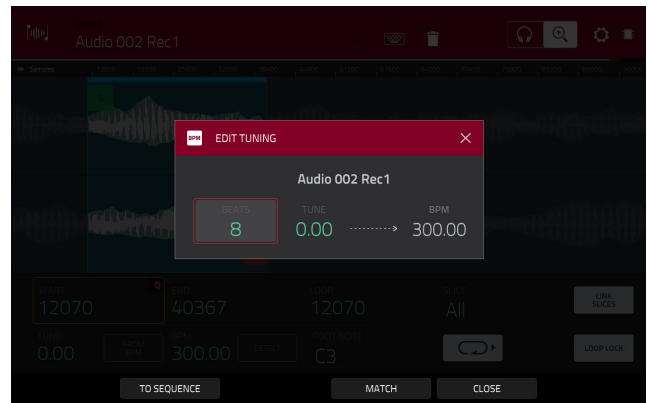
Tap **From BPM** to open the **Edit Tuning** window, which lets you tune a sample to the current sequence.

Use the **Number of Beats** field to match the number of beats in the sequence.

**To tune the sample to the sequence**, tap **Match**. The **Tune** field will adjust automatically and close the window. The sample is now tuned to the sequence.

**To tune the sample to the sequence and adjust the sequence tempo**, tap **To Seq**. This is the same as tapping **Match** but it also changes the sequence's tempo to the BPM shown in the **Tempo** field on the right.

**To close the window**, tap **Close**.



Use the **Root Note** field to set the root note of the sample. This defines which note will play the sample at its original pitch when in a keygroup program.

Use the **Slice** field to display either the sample as it has been edited (**Pad**) or the entire sample (**All**).

If the **Slice** field is set to **All**, you can display the sample as it has been edited but keep the start point and end point. **To do this**, press and hold **Shift**, and then tap **To Pad** at the bottom of the touchscreen. The **Slice** field will change to **Pad**, but the start point and end point will remain in their current locations.

The **Link Slices** button does not have a function in Program Mode.

**0 Snap** forces start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample.

**To enable or disable 0 Snap**, press and hold **Shift**, and then tap **0 Snap** at the bottom of the touchscreen.

**To enable or disable the loop function**, press and hold **Shift**, and then tap **Loop** at the bottom of the touchscreen. This switches the loop function between **Forward** and **off**. The loop function is described [earlier](#).

## Assigning Samples

You can assign your new sample directly to a pad from Program Mode.

**To assign a sample**, tap **Assign** at the bottom of the touchscreen to open the Assign Sample window.

**Important:** Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

If you set the **Assign To** field to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

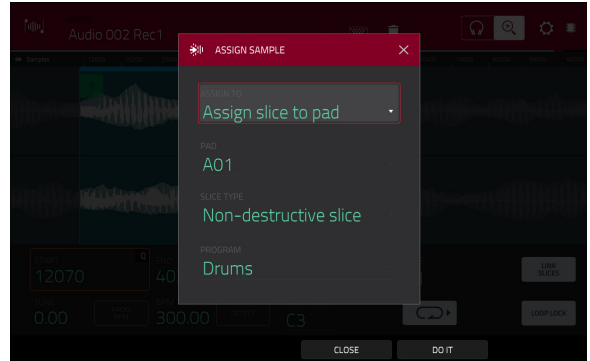
Use the **Slice Type** field to select how the pad's layer settings will be set when the slice is assigned to it (see [Program Edit Mode](#) to learn more about the parameters mentioned below):

- **Non-Destructive Slice:** The pad's **Slice** setting will be set to the slice number.
- **Pad Parameters:** The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Program** field to specify the program to which you want to add the slice.

**To assign the sample**, tap **Do It**.

**To cancel the operation**, tap **Close**.



If you set the **Assign To** field to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

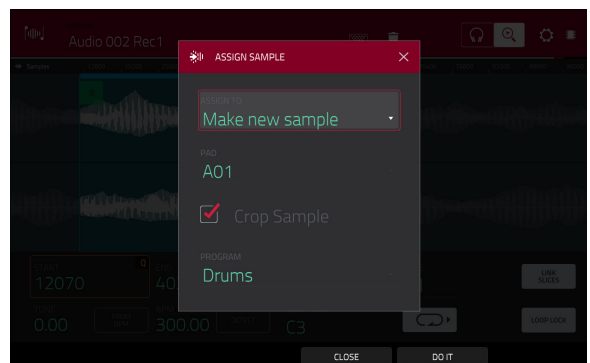
Check the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box unchecked to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Program** field to specify the program to which you want to add the slice.

**To assign the sample**, tap **Do It**.

**To cancel the operation**, tap **Close**.

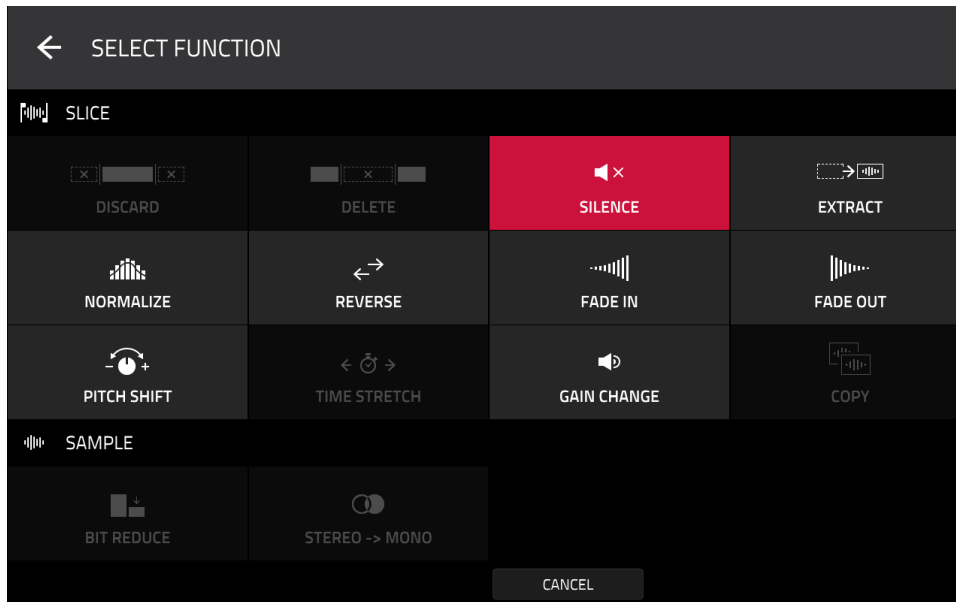


## Processing Slices

Press and hold **Shift**, and then tap the **Process** button to open the Process window, where you can select an editing option for the currently selected slice. (This has fewer options than Trim Mode. Unavailable ones are darkened.)

Use the **Function** field to select an editing process. Double-tap it or tap **Function** at the bottom of the touchscreen to open the Function window, which gives an overview of all available editing processes.

**Important:** Program Mode is non-destructive: You can choose the slice/edit behavior without destroying your original sample, giving you more control over sample playback; you can save your sliced sample and but also reuse all of the slice data in another project. See the [Program Edit Mode](#) chapter to learn more about setting a pad to play the entire sample, a specific slice of a sample, or a specific region of the sample (independent of its slice markers).



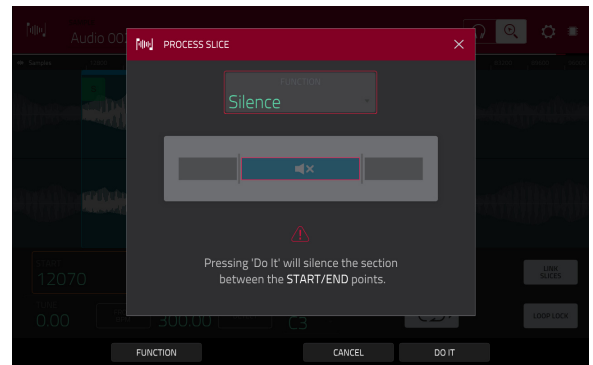
You can use any of these functions as described below.

**To return to Sample Edit Mode**, tap **Cancel**.

**To return to the Process window**, tap the top of the touchscreen.

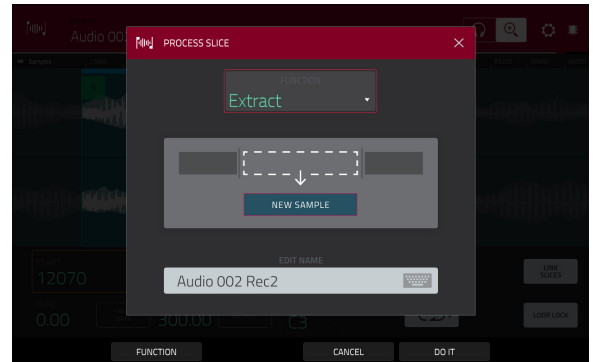
**Note:** All processes here will affect only the currently selected slice.

The **Silence** process replaces the region between the start point and end point with silence.

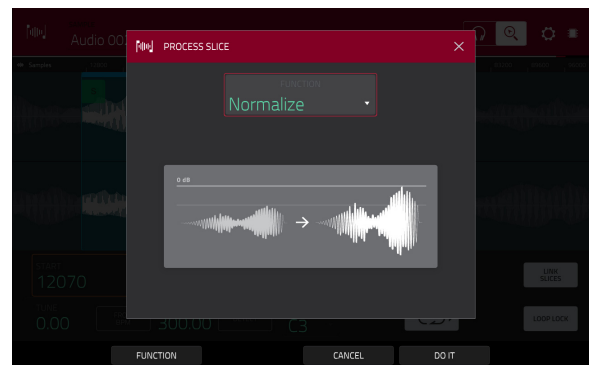


The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample (with a name you enter) in your current project.

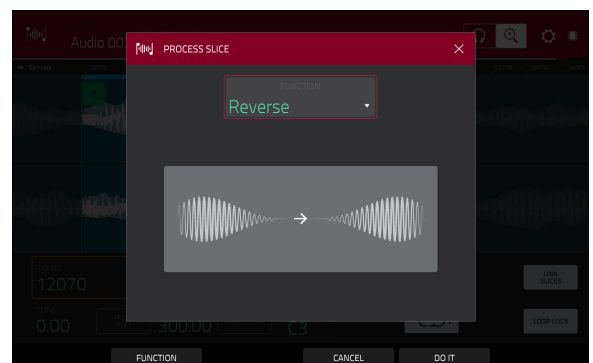
**Tip:** This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with samples with a wide range of amplitudes.



The **Reverse** process reverses the region between the start point and end point.

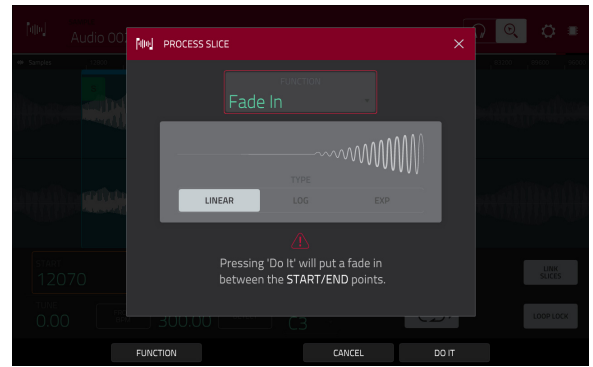


The **Fade In** process sets a fade-in between the start point and end point. The following types are available:

**Linear** fades the audio in with a linear curve—a straight line between the start and end.

**Log** fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.

**Exp** fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.

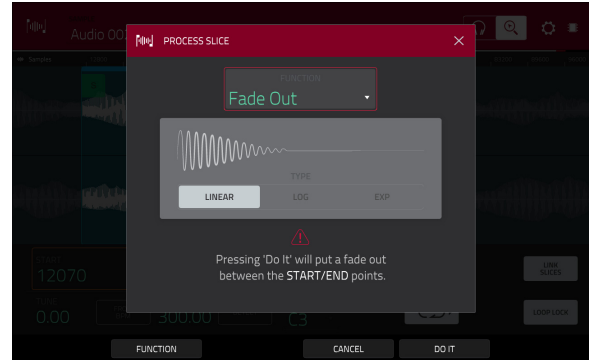


The **Fade Out** process sets a fade-out between the start point and end point. The following types are available:

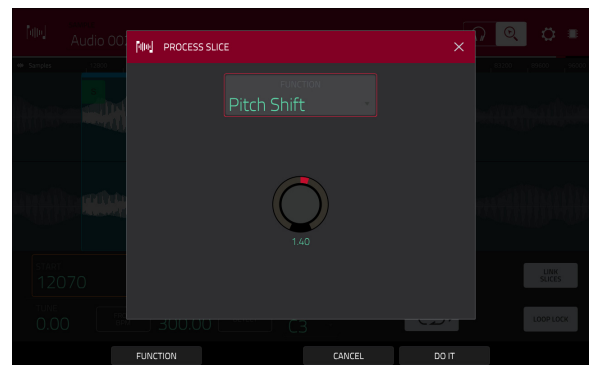
**Linear** fades the audio out with a linear curve—a straight line between the start and end.

**Log** fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.

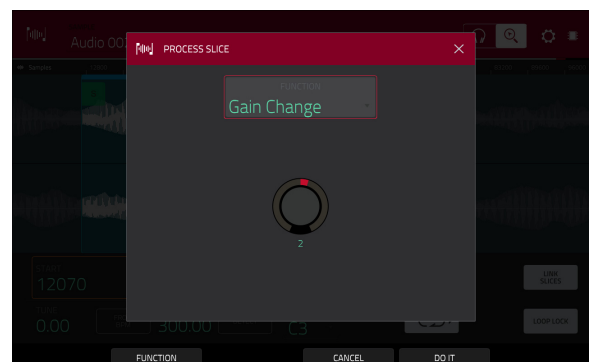
**Exp** fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



The **Pitch Shift** process changes the pitch of the sample without changing its length. This lets you set the sample's pitch to your sequence without affecting the sample's tempo or duration. You can adjust it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more extreme settings.



The **Gain Change** process raises or lowers the volume of the sample. You can adjust it up to 18 dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!



## Sampler



The Sampler lets you record audio samples to use in your projects.

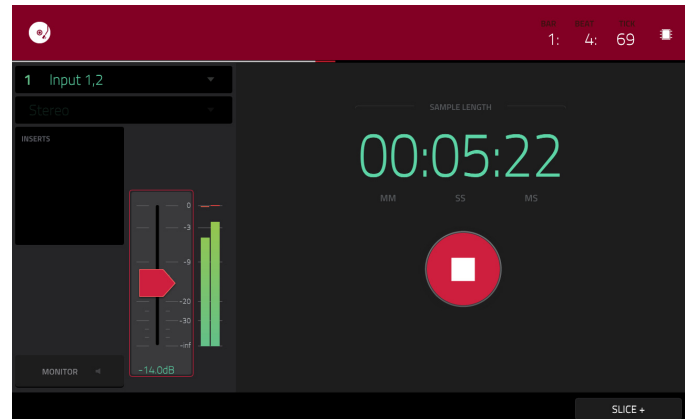
**Important:** To record any audio, you need to connect an audio source to your MPC X or to your computer's audio interface.

To open the **Sampler**, do either of the following:

- Press **Sampler**.
- Press **Menu** and then tap **Sampler**.

To set up the **Sampler** before recording:

1. Make sure to reduce the volume levels of your audio source and speakers, headphones, and/or monitors before you make any connections to avoid “pops” or feedback.
2. Connect a synthesizer or other line-level audio source to the input/inputs of your MPC X.
3. Turn the **Rec Vol** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be “peaking” constantly).
4. Set the recording controls as desired (described in this chapter).
5. Tap the **Arm** button to record-arm the Sampler.



You can use the Sampler to record using four different methods: **Sample**, **Slice**, **Pad Tap**, or **Pad Hold**, all described later in this chapter. The following controls are present regardless of which method you use.

The time counter in the upper-right corner shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

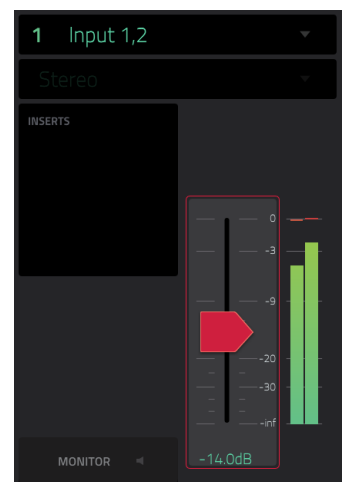
The upper-left **Input Source** field defines whether you are going to record an external audio signal (**Input 1,2**, **Input 3,4**, or one of **Input 1–4**) or an internal signal from within MPC X (**Resample L**, **Resample R**, or **Resample L+R**).

Resampling does not require an audio connection because the source is within MPC X and is therefore recorded without any loss in audio quality. You can, for example, use Resample to record two or more samples by pressing the corresponding pads simultaneously.

Use the second upper-left **Mono/Stereo** field to choose whether your recorded samples will be monaural (**Mono**) or binaural (**Stereo**).

The **Inserts** field shows any enabled or disabled effects for the Sampler. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

**Important:** These effects are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about how effects work in [General Features > Effects](#).



Tap the **Monitor** button to enable or disable input monitoring. When on, the audio you hear in your headphones will be taken **before** it reaches the Sampler, ensuring zero latency. When off, the audio you hear in your headphones will be taken **after** it is processed in the Sampler, so there may be some latency, but you will hear the audio source as it sounds in the recording.

**Tip: To avoid possible clicks or feedback while input monitoring,** reduce the level of the audio sources.

Use the **threshold slider** to adjust the threshold. Alternatively, turn **Q-Link Knob 1**.

When the Sampler is record-armed, it automatically starts recording when the level of the incoming source exceeds this setting. If you set it too high, the recording may not start when you play the input source, or the start of the material you wanted to record may be missing. If you set it too low, the recording may start too early, before you play the external source. Set this parameter to an appropriate level using the level meter.

**To reset the “peak hold,”** which shows the highest level of your input signal in the level meter, tap it.

For reference, the **Sample Length** counter shows you the length of your sample during the recording procedure.

Tap **Arm** to record-arm the Sampler. The button will then change to **Record** and show **Waiting for signal**.

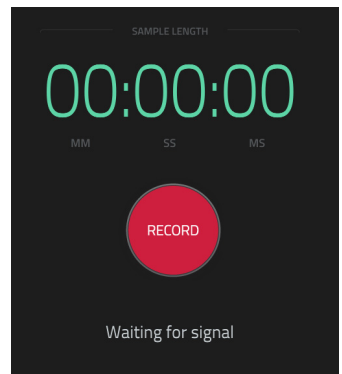
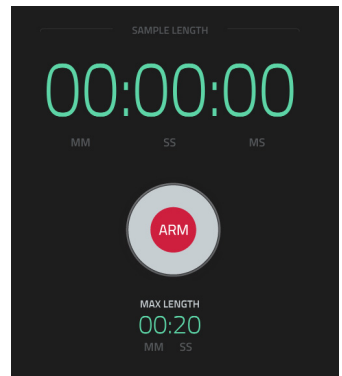
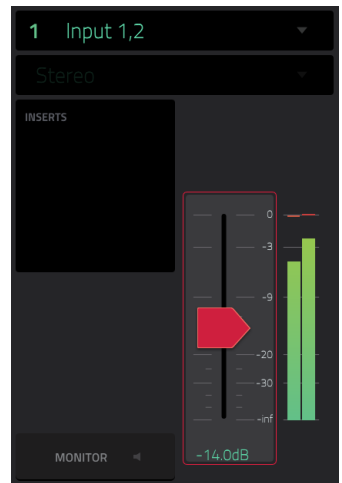
At that point, start recording by doing either of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Tap **Record** under the **Sample Length** counter.

**To disarm the track instead,** tap **Cancel**.

Use the **Max Length** field to define the maximum sampling time. Alternatively, turn the **Q-Link Knobs 3 and 4 (Minutes and Seconds)**.

You can record up to 19 minutes and 59 seconds (**19:59**) per sample. We recommend setting these to values that roughly match your estimated recording duration.



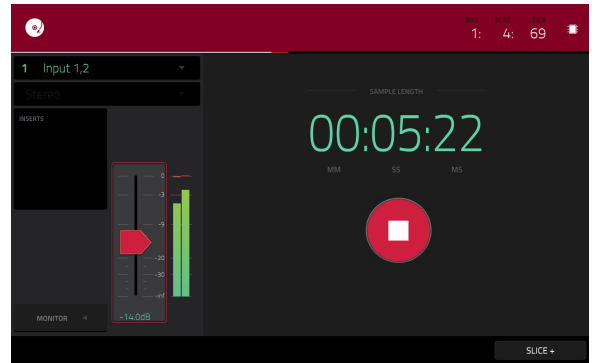
## Sample

Using this method, you can insert slice markers directly in your sample as you record it.

Slice markers divide the sample into multiple regions called **slices**, which you can adjust in the Chop Mode of Sample Edit Mode (see [Sample Edit Mode > Chop Mode](#) for more information). This is useful when working with a long sample with different sounds throughout (e.g., a drum loop or a long melodic or harmonic passage).

**To start recording**, do one of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Tap **Record** under the **Sample Length** counter.



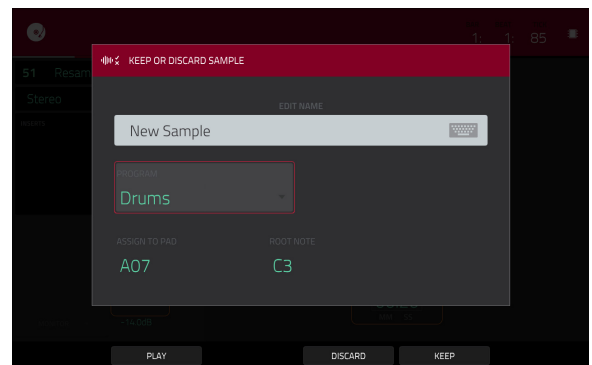
**To insert a slice marker in a sample while recording**, press **Slice+** (in the lower-right corner) as the sample records. Each time you press it, a slice marker will be placed at that location.

**To stop recording**, tap **Stop** under the **Sample Length** counter.

After you stop your recording, the **Keep or Discard Sample** window will appear.

Use the **Edit Name** field to name the new sample. Tap it and use the virtual keyboard that appears.

Use the **Program** field to assign the new sample to a program. Select **<none>** if you want to save it to the project without assigning it to a program.



Use the **Assign to Pad** field to assign the sample to a pad in the program.

Use the **Root Note** field to set where the sample's original pitch will be on the keyboard.

If you recorded a sample while a sequence was playing, the **Keep or Discard Sample** window will show a few more options after you select a pad.

Check the **Add Event** box to automatically add the sample to the currently playing sequence.

Use the **@** field to select where you want the event to start:

- **Start**: The sample will be a note event at the start of the currently playing sequence.
- **Trigger**: The sample will be a note event where you began recording it in the currently playing sequence.

Use the **Track** field to set which track will contain the new event.

**To confirm your selections**, tap **Keep** at the bottom of the touchscreen.

**To discard the recording and return to the Sampler**, tap **Discard** at the bottom of the touchscreen.

**To play the recording**, tap **Play** at the bottom of the touchscreen.

**Tip:** We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).



## Slice

Using this method, the pads correspond to slices of the currently recorded sample. Slice markers divide the sample into multiple regions called **slices**, which you can adjust in the Chop Mode of Sample Edit Mode (see [Sample Edit Mode > Chop Mode](#) for more information). This is useful when working with a long sample with different sounds throughout (e.g., a drum loop or a long melodic or harmonic passage).

**To start recording**, do one of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Tap **Record** under the **Sample Length** counter.

**To insert a slice marker in a sample while recording**, press any **pad** as the sample records. Each time you press it, a slice marker will be placed at that location.

The number of the pad that flashes **red** is the number of the slice marker that will be inserted next. The numbers of the pads that are lit **yellow** are the numbers of the slice markers that are already inserted.

When you are done recording, you can name the sample and create a new program using the slices.

**To stop recording**, tap the round **Stop** button.

After you stop your recording, the **Keep or Discard Sample** window will appear.

Use the **Edit Name** field to name the new sample. Tap it and use the virtual keyboard that appears. Otherwise, the process will add a consecutive number after the sample name.

Use the **Create New Program** field to assign the new sample to a new program:

**Off:** No program will be created. The slices will still be added to your project's sample pool.

**With Non-Destructive Slices:** In the new program, each pad's **Slice** setting will be set to the corresponding slice number. This is identical to how you can assign samples in Sample Edit Mode (as described in [Sample Edit Mode > Chop Mode > Converting or Assigning Slices](#)).

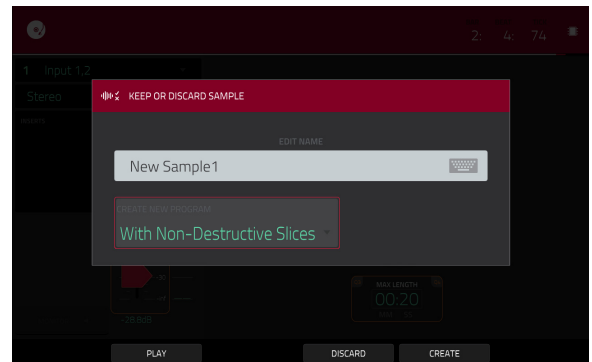
**With Pad Parameters:** In the new program, each pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated. This is identical to how you can assign samples in Sample Edit Mode (as described in [Sample Edit Mode > Chop Mode > Converting or Assigning Slices](#)).

**To confirm your selections**, tap **Create** or **Keep** at the bottom of the touchscreen.

**To discard the recording and return to the Sampler**, tap **Discard** at the bottom of the touchscreen.

**To play the recording**, tap **Play** at the bottom of the touchscreen.

**Tip:** We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).



## Pad Tap

**Important:** This mode works for **drum programs only**; you must select a drum program before using this mode. Otherwise, this feature will not do anything, even though it may appear to work.

With this method, pressing a pad immediately starts or continues recording directly to that pad (make sure you are using the desired program before you start recording). Pads with assigned samples are lit **bright yellow**. Pads without samples are lit **dim yellow**.

**To start recording to a pad**, press it. Recording will start immediately, and the pad will flash **red**. If you press a new pad, the recording will stop on the previous pad, which will turn **green**, and start on the new pad, which will flash **red**.

**Note:** If you start recording by tapping **Record** under the **Sample Length** counter—or if the volume exceeds the level of the **threshold slider**—the sample will record to your project's sample pool, not to a pad.

**To stop recording to a pad**, press the currently recording **pad**, which is flashing **red**. The sample will continue recording. You can start recording on another **pad** at any time.

**To stop all recording**, tap **Stop** under the **Sample Length** counter.

When you are done recording, each pad that you have pressed during recording:

- will have its **Slice** setting set to **Pad**;
- will have its **Pad Start** and **Pad End** set to the slice's start point and end point values; and
- will have its **Loop Position** set to the slice's start point but with **Pad Loop** deactivated.

This is identical to how you can assign samples in Sample Edit Mode (as described in [Sample Edit Mode > Chop Mode > Converting or Assigning Slices](#)).

**Tip:** We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).

## Pad Hold

**Important:** This mode works for **drum programs only**; you must select a drum program before using this mode. Otherwise, this feature will not do anything, even though it may appear to work.

With this method, pressing and holding a pad immediately starts or continues recording directly to that pad (make sure you are using the desired program before you start recording). Pads with assigned samples are lit **bright yellow**. Pads without samples are lit **dim yellow**.

**To start recording to a pad**, press and hold it. Recording will start immediately, and the pad will light **red**.

**Note:** If you start recording by tapping **Record** under the **Sample Length** counter—or if the volume exceeds the level of the **threshold slider**—the sample will record to your project's sample pool, not to a pad.

**To stop recording**, release the **pad**. The pad will light **green**, and the sample will continue recording. You can start recording on another **pad** at any time.

**To stop all recording**, tap **Stop** under the **Sample Length** counter.

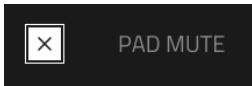
When you are done recording, each pad that you have pressed during recording:

- will have its **Slice** setting set to **Pad**;
- will have its **Pad Start** and **Pad End** set to the slice's start point and end point values; and
- will have its **Loop Position** set to the slice's start point but with **Pad Loop** deactivated.

This is identical to how you can assign samples in Sample Edit Mode (as described in [Sample Edit Mode > Chop Mode > Converting or Assigning Slices](#)).

**Tip:** We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).

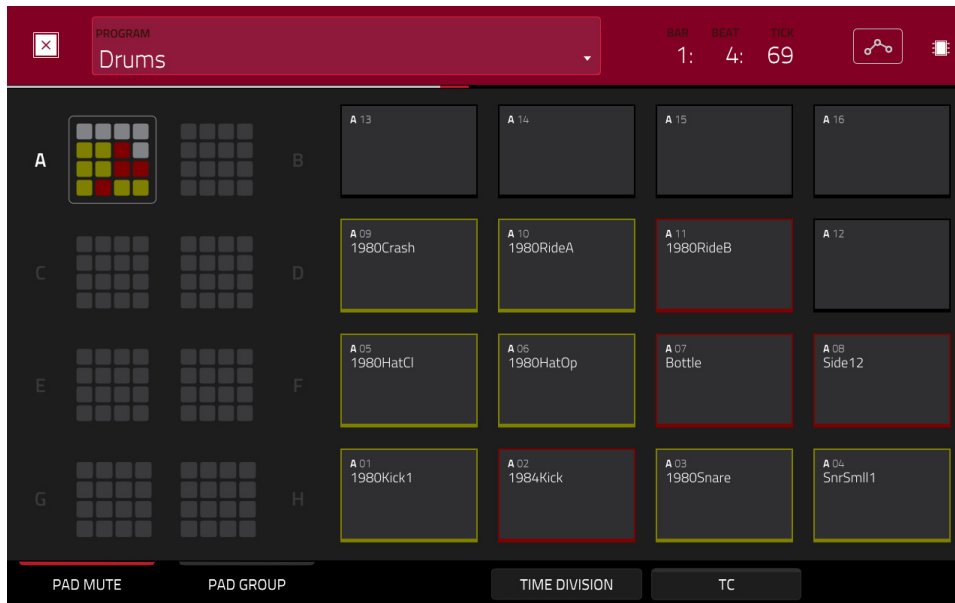
## Pad Mute Mode



Pad Mute Mode lets you easily mute pads within a program or set mute groups for each pad within a program.

To enter **Pad Mute Mode**, do either of the following:

- Press **Shift+Track Mute/Pad Mute**.
- Press **Menu**, and then tap **Pad Mute**.



There are two tabs you can view in this mode: **Pad Mute** or **Pad Group**. Tap each button in the lower-left corner to select it. See the following [Pad Mute](#) and [Pad Group](#) sections to learn about each.

Use the **Program** field at the top of the touchscreen to select a program.

The time counter in the upper-right corner the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

**Time Correct** lets you quantize pad mutes. This is useful when you want your mutes to line up with a specific time division. For example, with **Time Division** set to **1 Bar**, your mutes will always align with the beginning of the measure immediately after you press the pad.

Tap **Time Division** at the bottom of the touchscreen, and select a value from **1/16** to **2 Bars** (T indicates a triplet-based time division).

Tap **TC** at the bottom of the touchscreen to enable or disable the Time Correct feature.

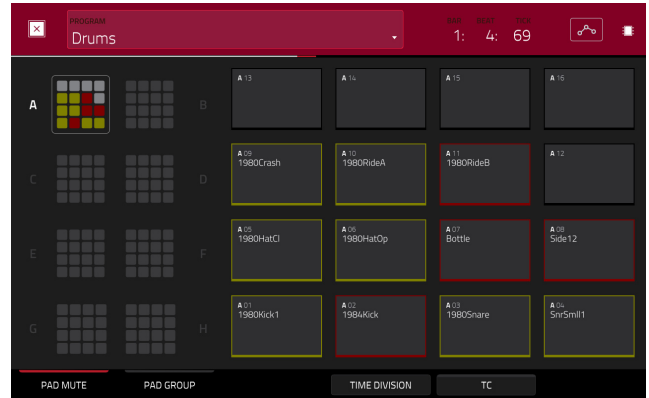
## Pad Mute

You can mute or unmute individual sounds (on a single track) in real time by pressing the pads. This is useful if you want to hear a track without a particular sound or if you want to isolate specific sounds or combinations of sounds.

**Tip:** This function is similar to muting pads one at a time in the grid—but more convenient.

### To mute pads in this mode:

1. If the **Pad Mute** tab in the lower-left corner is not already selected, tap it.
2. Select the desired pad bank. Use the **Pad Bank Buttons** or tap a pad bank shown on the left side of the touchscreen.
3. **To mute or unmute a pad's sound**, press it or tap it in the touchscreen. Muted pads are lit **red**. Unmuted pads are lit **yellow**. Unused pads do not show any sample names.



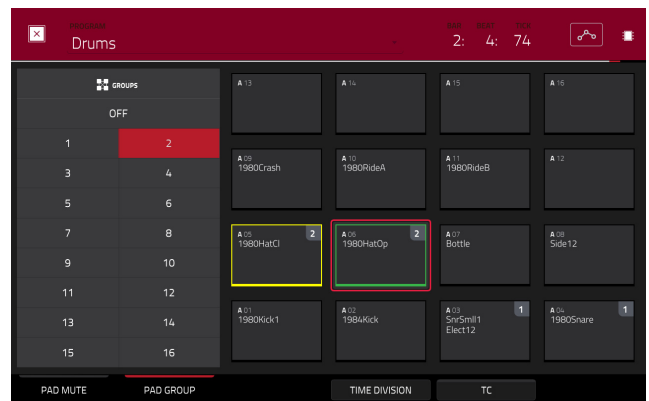
**To assign pads to pad groups within this tab**, turn each of the **Q-Link knobs** (when the **Screen Control Q-Link** button is selected) to assign each of the pads to a pad group. The number of each pad's group is shown in its upper-right corner.

## Pad Group

The pad group feature extends the concept of pad mutes: you can mute or unmute multiple pads (on a single track) by pressing one pad that you have assigned to a mute group. This is useful if you want to hear a track without a particular group of sounds or if you want to isolate specific sounds in various combinations. You can create up to 16 different pad groups.

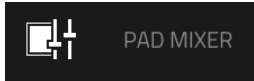
### To use pad groups:

1. If the **Pad Group** tab in the lower-left corner is not already selected, tap it.
2. Use the **Pad Bank** buttons to select the desired pad bank.
3. **To select a pad to add to a mute group**, press it or tap it on the touchscreen. The selected pad is lit **green**. If there are other pads in the same mute group, they will flash **yellow**.
4. **To add the pad to the mute group**, tap the number of the desired mute group on the left side of the touchscreen. **To remove it from the mute group**, tap **Off**.



Alternatively, turn each of the **Q-Link knobs** (when the **Screen Control Q-Link** button is selected) to assign each of the pads to a pad group. The number of each pad's group is shown in its upper-right corner.

## Pad Mixer



In the Pad Mixer, you can set a program's levels, stereo panning, routing, and effects.

This mode appears differently for each type of program:

For **drum programs**, this mode shows a pad with controls for each individual pad (of 128).

For **keygroup programs**, this mode shows a pad with controls for each individual keygroup (up to 128).

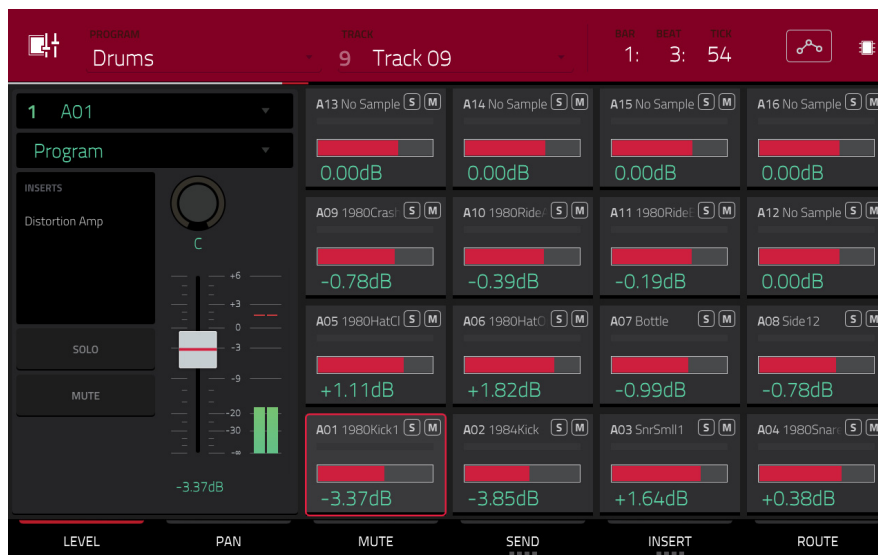
For **clip programs**, this mode shows a pad with controls for each individual clip (up to 16). Even though you can view other pad banks, only **Pad Bank A** is relevant for clip programs.

For **MIDI programs**, **plugin programs**, and **CV programs**, this mode is unavailable.

For more information on how these programs differ, please see [General Features > Programs](#).

To enter the Pad Mixer, do either of the following:

- Press **Pad Mixer**.
- Press **Menu**, and then tap **Pad Mixer**.



The Pad Mixer works like an audio mixer with various settings for each pad, shown in a 4x4 array. All of their functionality is identical. If a sample has been assigned to a pad, its name is displayed at the top of it.

To select a pad, press its corresponding pad or tap it on the touchscreen. Alternatively, use the **Pad** field in the upper-left corner.

To view more channels, use the **Pad Bank** buttons.

Use the **Program** field in the upper-left corner to select the program whose pads you want to view. Remember that only drum programs or keygroup programs will display properly in the Pad Mixer.

Use the **Track** field at the top of the touchscreen to select the desired track.

The time counter in the upper-right corner shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

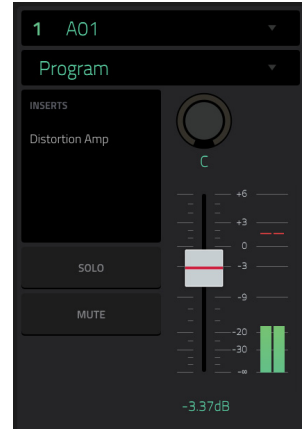
The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

To view a specific setting on all channels, tap the **Level**, **Pan**, **Mute**, **Send**, **Insert**, or **Route** button at the bottom of the touchscreen. You can tap the **Send** or **Insert** buttons multiple times to cycle through the four available slots for each.

When a pad is selected, you can view and adjust all of its settings in the left side of the touchscreen rather than using the tab buttons at the bottom.

When viewing the channel strip:

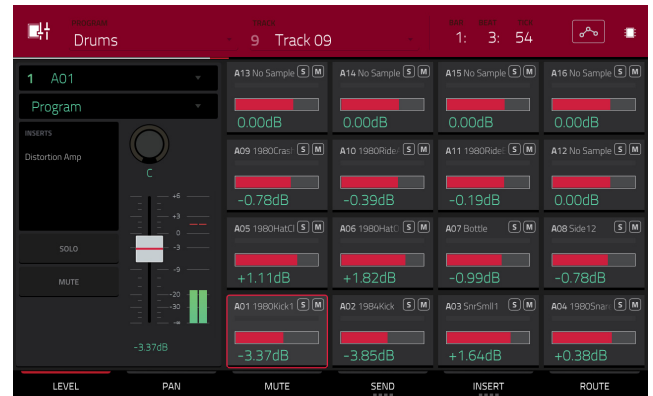
- The first field shows the current pad number. Press a **pad** or double-tap the **field** to select a different pad.
- The second field shows where the pad is routed (which you can change). Usually, this is set to **Program**. Double-tap the field to select a different destination (**Out 1,2-7,8** in Standalone Mode, **Out 1,2-31,32** in Controller Mode).
- The **Inserts** field shows any enabled or disabled effects for that pad. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.
- Tap **Solo** or **Mute** to solo or mute the pad (respectively).
- Adjust the **pan knob** or **level slider** to change the panning or level of the pad.



## Levels

When the **Level** tab is selected, use the **data dial** or **-/+** buttons to adjust the level of the currently selected pad.

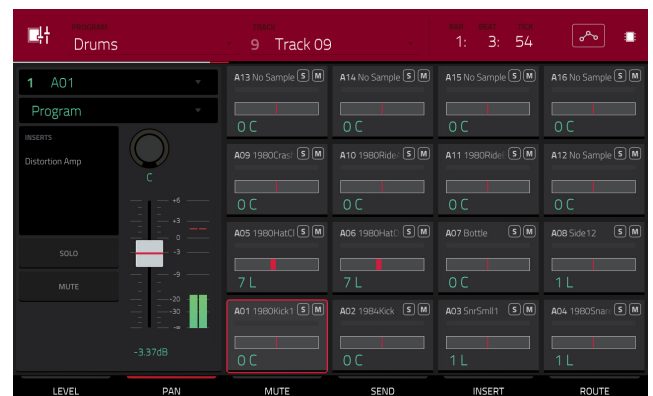
The level sliders and meters in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a large version of the level slider and meter.



## Panning

When the **Pan** tab is selected, use the **data dial** or **-/+** buttons to adjust the panning of the currently selected pad.

The pan sliders in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a large version of the **pan knob**.

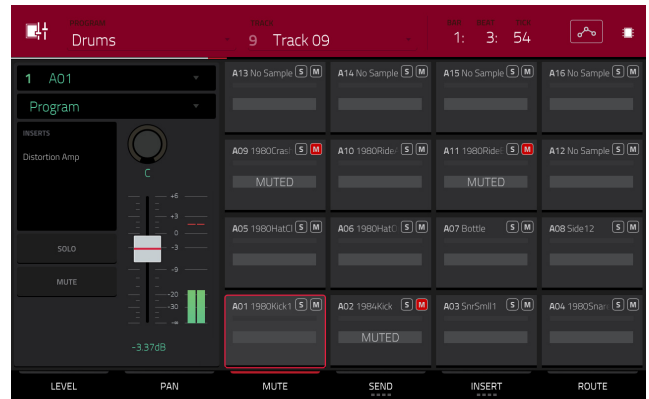


## Mute

When the **Mute** tab is selected, mute the currently selected pad by doing any of the following:

- Turn the **data dial**.
- Use the **-/+** buttons.
- Tap the **pad** in the touchscreen.

When a pad is muted, its **M** button will light **red**.



## Send Effects

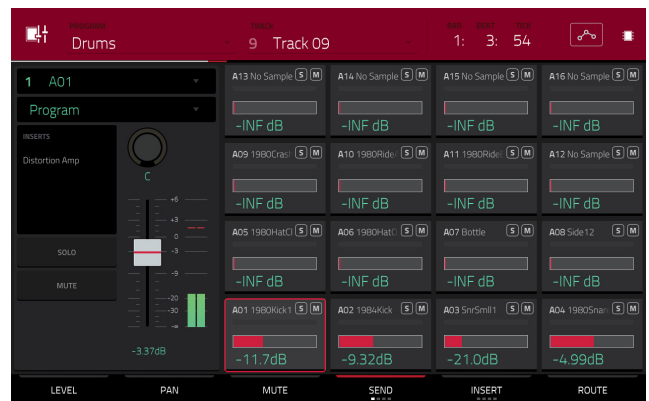
When the **Send** tab is selected, use the **data dial** or **-/+** buttons to adjust the send level of the currently selected pad.

The level sliders in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a large version of the level slider.

You can select up to **four send effects** for each pad. You can use various effects included in your MPC X as well as other VST and AU plugins installed on your computer. Tap the **Send** button to cycle through the four available slots for each.

To learn how to use send effects, please see [General Features > Effects > Send/Return Effects](#).

**Important:** To use a send effect, you have to load an effect into the corresponding send effect slot in the Channel Mixer.



## Insert Effects

When the **Insert** tab is selected, use the **data dial** or **-/+** buttons to adjust the insert effect level of the currently selected pad.

The level sliders in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a window where you can load, change, and enable or disable the effects.

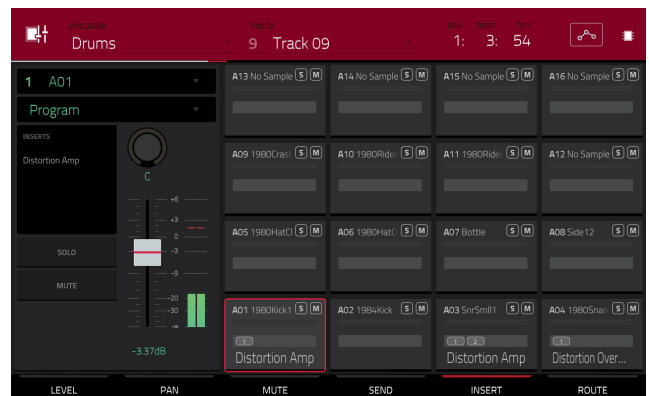
You can select up to **four insert effects** for each pad. You can use various effects included in your MPC X as well as other VST and AU plugins installed on your computer. Tap the **Insert** button to cycle through the four available slots for each.

To learn how to use insert effects, please see [General Features > Effects > Insert Effects](#).

### Important:

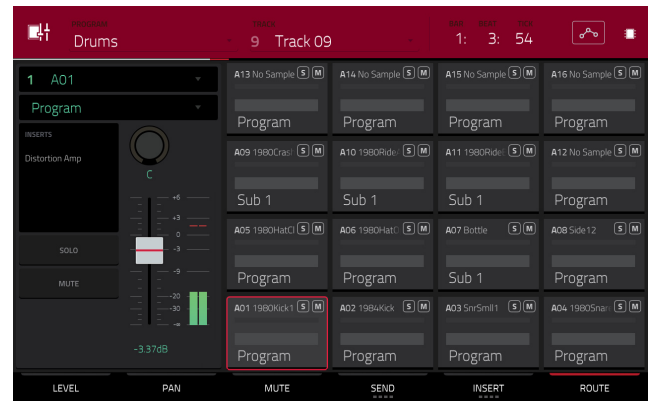
When using keygroup insert effects, they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

If a routing is set to anything other than **Program**, then a program insert effect will **not** be applied to that pad or keygroup.




## Routing

When the **Route** tab is selected, use the **data dial** or **-/+** buttons to select the output of the currently selected pad. Usually, this is set to **Program**. Double-tap a **pad** in the touchscreen to select a different destination (**Out 1,2–7,8** in Standalone Mode, **Out 1,2–31,32** in Controller Mode).



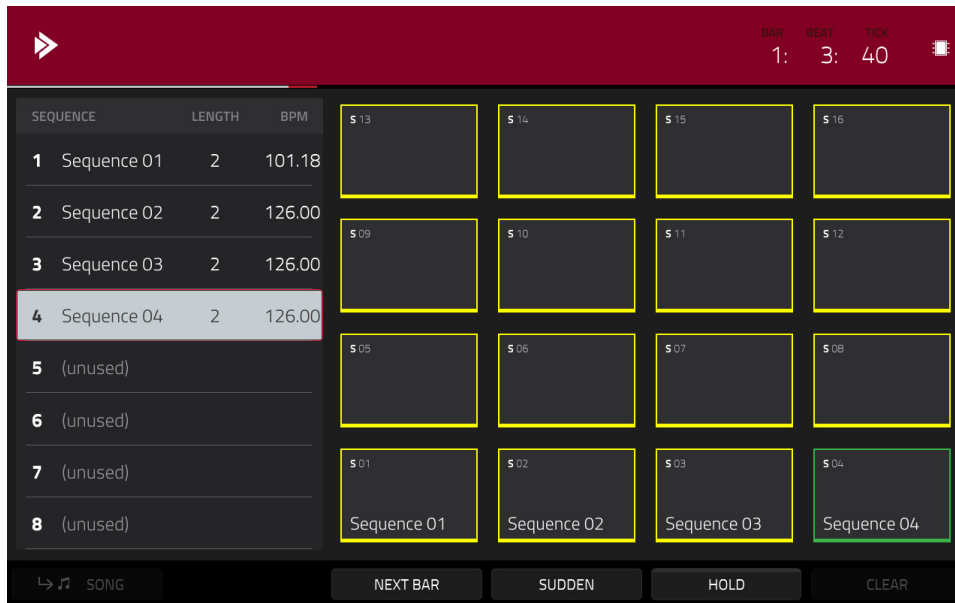


## Next Sequence Mode

 **NEXT SEQUENCE** Next Sequence Mode lets you trigger different sequences simply by playing the pads. This is useful for live performances, letting you change a song's structure in real time.

To enter **Next Sequence Mode**, do either of the following:

- Press **Next Seq.**
- Press **Menu**, and then tap **Next Sequence**.



The time counter in the upper-right corner shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

The sequence playlist on the left side shows a list-style overview of **all** used sequences in your project:

The **Sequence** column shows the name of the song's sequences.

The **Length** column shows the bar length of a sequence.

The **BPM** column shows the tempo of a sequence in beats per minute.

The currently selected sequence is highlighted in the list. Tap a sequence in the list to select it.

SEQUENCE	LENGTH	BPM
1 Sequence 01	2	101.18
2 Sequence 02	2	126.00
3 Sequence 03	2	126.00
4 Sequence 04	2	126.00
5 (unused)		
6 (unused)		
7 (unused)		
8 (unused)		

In Next Sequence Mode, every pad is assigned to a sequence, starting from **Pad A01** with **Sequence 1** and ascending from there. The pads will show the names of their corresponding sequences. Empty pads correspond to unused sequences. The currently selected pad will flash **green**.

During playback, change the next sequence that will play by pressing the corresponding pad or tapping it in the touchscreen. If you do not select another sequence, the current sequence will repeat indefinitely.



As a sequence plays, you can use the buttons at the bottom of the touchscreen to change how playback works:

**To switch to the currently selected sequence at the beginning of the next bar**, tap **Next Bar**. This is useful if you want to switch to another sequence before the current one ends without having to worry about timing issues.

**To switch to the currently selected sequence immediately**, tap **Sudden**. The new sequence will start playing whether or not the current sequence is done. This is useful in live performances if you need to switch to the next sequence instantly at a certain cue.

**To delete the currently selected sequence from the sequence playlist**, tap **Clear**. This option is available only if that sequence is not playing at that moment.

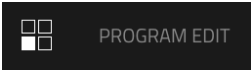
**To repeat the current sequence indefinitely and temporarily ignore pad presses**, tap **Hold**. **To return to normal operation**, tap it again. This is useful if you want to select other pads without selecting them to play next.

**To copy the sequence playlist to a song**, tap ↪ **Song** while playback is stopped.

In the **Copy to Song** screen that appears, select a song, and then tap **Do It** to continue or **Close** to cancel.

To read more about Song Mode, please see the [Song Mode](#) chapter.

## Program Edit Mode



Program Edit Mode contains all parameters for editing your Programs.

For **drum programs**, this mode includes the parameters of four layers as well as all synthesis parameters and insert effect settings. See the [Drum Programs](#) section to learn more.

For **keygroup programs**, this mode contains slightly more parameters than drum programs. See the [Keygroup Programs](#) section to learn more.

For **clip programs**, this mode looks very different from that of other programs due to how clip launching works. See the [Clip Programs](#) section to learn more.

For **plugin programs**, skip to [Plugin Programs](#) to learn more. These are available only when using MPC X in Controller Mode.

For **MIDI programs** and **CV programs**, skip to [MIDI Programs](#) and [CV Programs](#) to learn more.

For more general information on the differences between the types of programs, please see [General Features > Programs](#).

To enter Program Edit Mode, do either of the following:

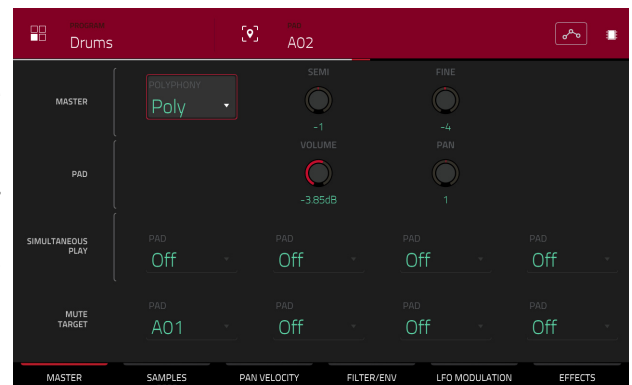
- Press **Prog Edit**.
- Press **Menu**, and then tap **Program Edit**.

## Drum Programs

When using drum programs, Program Edit Mode lets you edit the parameters for each pad.

To **select a pad**, press it. Its parameters will appear on the screen immediately.

To **view a specific tab of parameters**, tap the **Master**, **Samples**, **Pan Velocity**, **Filter Env**, **LFO Modulation**, or **Effects** button at the bottom of the touchscreen. You can tap the **Samples** button multiple times to cycle through its four available sections.



Tap the **location icon** at the top of the touchscreen (between the **Program** and **Pad** fields) to open the **Edit Zones** window, which is a feature for drum programs and clip programs. This window displays an overview of any selected pads. Use the **Mode** selector to set how the selected pads will be edited:

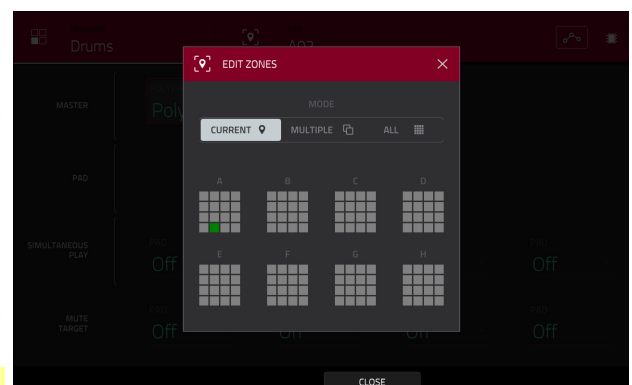
**Current:** Only the currently selected pad can be edited.

**Multiple:** All selected pads can be edited simultaneously.

**All:** All pads can be edited simultaneously.

To **close the window**, tap **Close**, the **X**, or anywhere outside the window.

**Tip:** You can immediately select multiple pads while on any tab in Program Edit Mode (regardless of the current Edit Zones setting) by pressing and holding the **Shift** button and pressing each desired pad. The Edit Zones setting will automatically change to **Multiple**.



The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

## Master

In the Master tab, you can set the playback mode and tuning for the overall Program.

**Polyphony** sets the playback mode for the program's pads. In **Mono** Mode, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that program. In **Poly** Mode, several pads can be triggered at the same time (limited only by the total number of voices available).

**Semi** lets you transpose the program up to 36 semitones up or down.

**Fine** provides fine-tuning of the program up to 99 cents up or down.

**Volume** controls the overall volume level of the loaded sample/samples.

**Pan** controls the overall panning of the loaded sample/samples in the stereo field.

The **Simultaneous Play** section lets you set up to four pads that can be triggered by pressing one pad only. This function is useful for triggering a stack of sounds (e.g., layered kick drums). Use each **Pad** field to select the desired pad.

The **Mute Targets** tab lets you select up to four pads (in the same program) for the currently selected pad. When the currently selected pad is played, it will immediately silence its mute targets. Use each **Pad** field to select the desired mute target.

### Tips:

This feature is useful for programming realistic hi-hats, especially if only the open or closed hat should be heard. This feature is similar to the mute group feature, available for both drum programs and keygroup programs.

## Samples

Each pad can trigger up to four samples, which are assigned in four individual layers. Each layer has identical, independently assignable parameters.

Tap **Samples** to cycle through its four available sections.

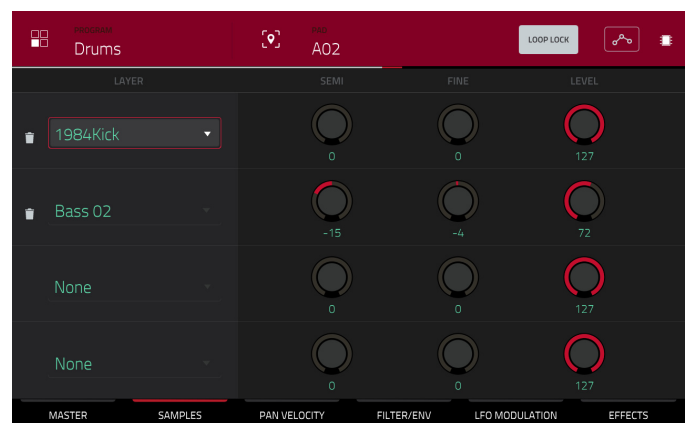
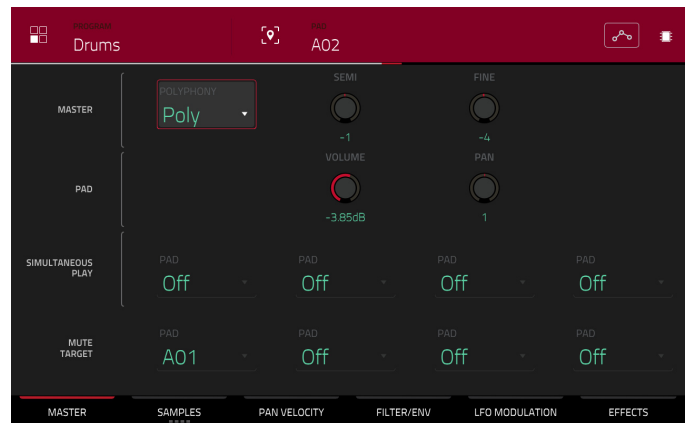
**To turn Loop Lock on or off**, tap the **Loop Lock** button. When on, the loop position is the same as the pad start (as determined in the third and fourth **Samples** tabs). When off, the loop position is independent from the pad start.

Use the **Sample** field to select the sample file for that layer. Remember that the sample has to be loaded into the project's sample pool beforehand. For information on how to load samples into a project, please see the [Browser](#) chapter.

**Semi** lets you transpose the selected layer 36 up to semitones up or down.

**Fine** provides fine-tuning of each layer by cents.

**Level** lets you adjust the each layer's volume, letting you control the "balance" of the samples assigned to the pad.



**Important:** The parameters on the second, third, and fourth **Samples** tabs work in conjunction with Chop Mode (in Sample Edit Mode). Here's how it works:

When working in Sample Edit Mode and using Chop Mode to divide a sample into slices for your pads, you can convert a slice using **Non-Destructive Slice** or **Pad Parameters**.

A **Non-Destructive Slice** will let its pad to refer to that slice when you press it; the original sample remains intact and each slice marker is like a “bookmark” for a pad. In Program Edit Mode, you'll see that the pad/layer to which it's assigned has its **Slice** drop-down menu set to the corresponding **slice number** in the original sample. Playing that pad will cause it to refer to that slice marker like a “bookmark” instead of creating an entirely new sample of that slice. This means that you no longer have to clutter your Project with a new sample for every slice (though you can still use this earlier method, if you prefer).

A slice converted using **Pad Parameters** is very similar to a non-destructive slice described above. The difference is that in Program Edit Mode, the pads/layers they're assigned to have their **Slice** drop-down menus set to **Pad** (instead of the slice number), and the **Pad Start** and **Pad End** points will correspond to the slice markers in the original sample.

Use the **Slice** field to select what part/parts of the sample will play:

**All:** The entire sample will play.

**Pad:** The sample will play from the **Pad Start** position to the **Pad End** position, described [below](#). This also lets you activate [Pad Loop](#).

**Slice 1, 2, 3, etc.:** If you have sliced the sample in Chop Mode, you can select which slice will play when you trigger the pad.

Use the **Direction** selector to select in which direction the sample will play:

**Fwd:** The sample will play in the normal forward direction.

**Rev:** The sample will play in reverse.

Use the **Offset** slider to determine a time offset for the sample's playback.

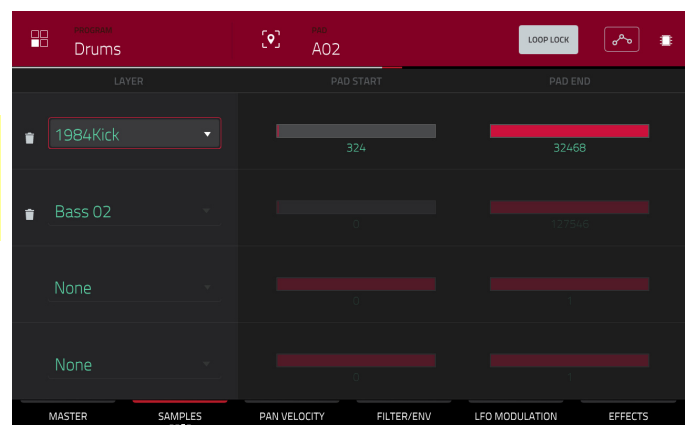
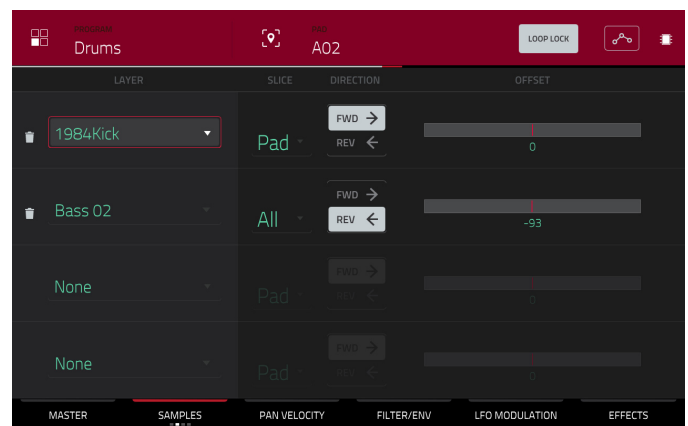
**Positive values** (right of center): When the pad is played, playback will start immediately but at a later point in the sample specified by the offset value.

**Negative values** (left of center): When the pad is played, playback will be delayed by the amount specified by the offset value.

Use the **Pad Start** slider to determine the position (in samples) where the pad's playback will start. The minimum value is **0**, and the maximum value is the **Pad End** value.

**Note:** When **Loop Lock** is on, the loop position (as determined in the fourth **Samples** tab) is the same as the pad start. When off, the loop position is independent from the pad start.

Use the **Pad End** slider to determine the position (in samples) where the pad's playback will stop. The minimum value is the **Pad Start** value, and the maximum value is the sample's total length (in samples).



Use the **Pad Loop** button to cycle through the available Pad Loop modes.

**Important:** For Pad Loop to work, you must (1) set the **Sample Play** field to **Note On** instead of One Shot and (2) set the **Slice** field to **Pad** instead of All or a slice number.

**Off:** The sample will not loop.



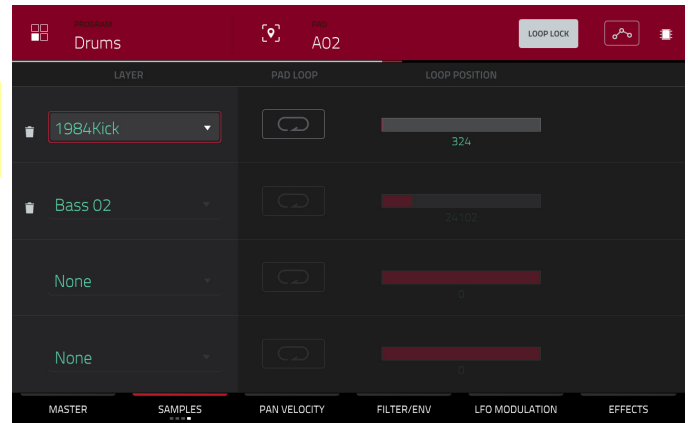
**Forward:** You can hold down the **pad** to cause that sample to repeat from the **Loop Position** to the end of the sample. Release the **pad** to stop the repeating playback.



**Reverse:** You can hold down the **pad** to cause that sample to play in reverse, repeating from the end of the sample to the **Loop Position**. Release the **pad** to stop the repeating playback.



**Alternating:** You can hold down the **pad** to cause that sample to play from the **Loop Position** to the end of the sample and then play in reverse until it reaches the **Loop Position** again. This will repeat as long as you are holding the **pad** down. Release the **pad** to stop the repeating playback.



Use the **Loop Position** slider to determine the position (in samples) where the pad's playback will repeat when Pad Loop is activated.

**Note:** When **Loop Lock** is on, the loop position is the same as the pad start (as determined in the third **Samples** tab). When off, the loop position is independent from the pad start.

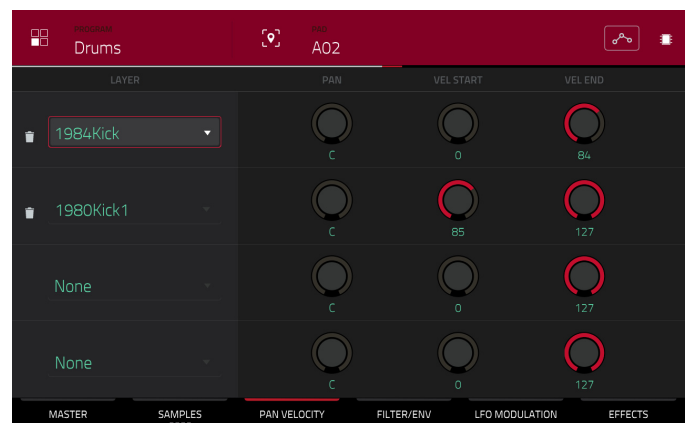
## Pan Velocity

Use the **pan knob** to adjust the stereo placement of the respective layer.

Use the **Vel Start** and **Vel End** knobs to define the velocity range of each layer.

A range from **0** to **127** lets the layer respond to the entire velocity range which is input from the respective pad while, for example, a range from **100** to **127** lets the layer respond only to higher velocity levels. By assigning several samples of one instrument, you can create a realistic-sounding “multi-sample” by adjusting the velocity ranges of each layer accordingly.

For example, you may have three samples of a drum hit with low force, medium force, and high force. You can set each sample to a layer and set the Velocity ranges so only low velocities trigger the low-force sample, only mid-range velocities trigger the medium-force sample, and only high velocities trigger the high-force sample.



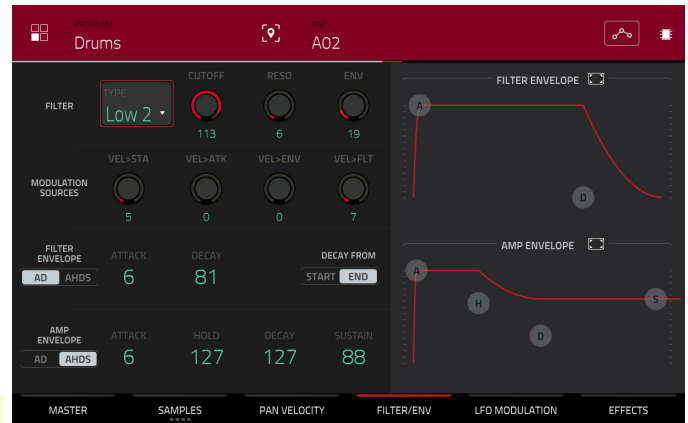
## Filter Envelope

Use the **Type** field to select a filter for the selected pad. See [Appendix > Glossary > Filter](#) for an explanation of the available filter types.

Use the **Cutoff** knob to set the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Use the **Reso** knob to set the resonance/emphasis of the frequencies around the cutoff point.

**Tip:** Use values lower than **80** to give more brilliance to the sound. At values higher than **80**, the sound will result in a strong audible boost around the cutoff frequency.



Use the **Env** to determine the amount of influence the filter envelope has on the cutoff frequency. Higher settings will increase the modulation of the filter by the envelope; lower settings will result in only subtle changes of the filter **Cutoff** over time.

**Tip:** To give a sound a more distinctive attack, increase the **Env** setting and set low **Atk** and **Decay** values as well as a medium-low **Sust** value of the **Filter Envelope**. This will start a sound with the filter opened and close it shortly afterward, giving it a bright start followed by a darker sustain. String sounds, on the other hand, can sound much more “alive” with low **Env** settings and a high **Atk** value, resulting in a slight fade-in of the higher frequencies.

Use the **Modulation Sources** knobs to set how much velocity is required to modulate certain other parameters:

**Vel>Sta** (Velocity→Start) sets how much velocity is needed (for a triggered pad) to modulate the sample startpoint.

**Vel>Atk** (Velocity→Attack) sets how much velocity is needed (for a triggered pad) to modulate the Attack phase for the Amp envelope.

**Vel>Env** (Velocity→Envelope) enables velocity information to control the amount of the filter envelope’s effect on the cutoff frequency.

**Vel>Flt** (Velocity→Filter) uses the velocity of a pad to modulate the cutoff frequency directly.

The **Filter Envelope** controls affect the filter frequency. Use the fields or tap and drag the “handles” of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope’s influence on the filter frequency with the **Env** knob. See the later [Anatomy of an Envelope](#) section to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. Use the fields or tap and drag the “handles” of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope’s influence on the filter frequency with the **Env** knob. See the later [Anatomy of an Envelope](#) section to learn about the envelope parameters.

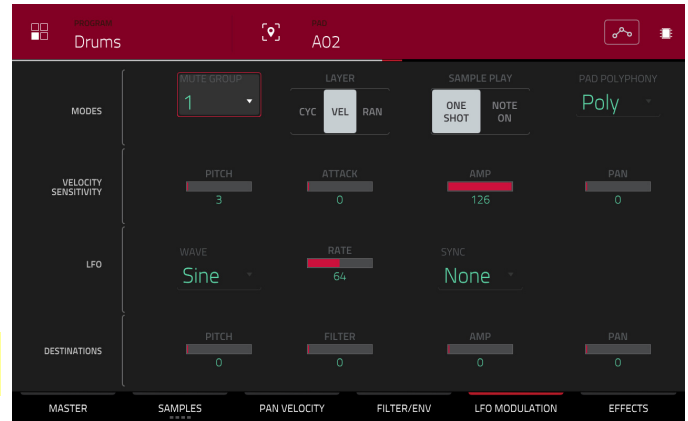


## LFO Modulation

The **Modes** controls let you set the behavior for each pad's samples in a drum program.

Use the **Mute Group** field to assign the selected pad to one of the 32 available groups. When pads assigned to the same mute group receive MIDI notes, the last pad played will silence all other pads in that mute group. A mute group affects pads within that program only; mute groups do not affect pads in other programs.

**Tip:** This feature is useful for programming realistic hi-hats, especially if only the open or closed hat should be heard.



Use the **Layer Play** selector to determine how multiple samples assigned to the same pad are played:

**Cycle (Cyc):** Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc.

**Velocity (Vel):** The pad will switch between layers depending on how hard you press a pad.

**Random (Ran):** Each time the pad is played, it will play one of its layer's samples at random.

Use the **Sample Play** selector to determine how much of the sample is played.

**One Shot:** The entire sample will play from start to end. Use this when you want to play short sounds.

**Note On:** The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.

Use the **Pad Polyphony** field to determine how the pad's sound behaves when multiple hits are registered. When set to **Mono**, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that program. When set to **Poly**, several pads can be triggered at the same time (limited only by the total number of voices available). You can also select a specific number of pads (**2-32**) so that you can trigger up to this many pads at the same time (unless they exceed the total number of voices available).

The Velocity Sensitivity controls determine how much the velocity affects the pitch of the sound (**Pitch**), the attack of the filter envelope (**Attack**), the volume level of the filter envelope (**Amp**) and or the panning of the sound (**Pan**).

When you press a pad softly, only minimal modulation is applied. When you press it harder, the modulation amount also gets stronger depending on the setting of the corresponding knob.

A low-frequency oscillator (LFO) generates a periodic waveform with an adjustable frequency and shape which can be used for modulation purposes.

Use the **Wave** field to select the LFO waveform type:

**Sine** (best suited for smooth modulations)

**Triangle** (best suited for smooth modulations)

**S&H** (samples a random value and holds it until the next value is generated)

**Saw** (can generate interesting filter or volume changes)

**Saw Down** (can generate interesting filter or volume changes)

**Square** (interesting results with hard-panning modulations)

**Noise** (generates random values and glides)



Use the **Rate** field to determine the LFO frequency when **Sync** is on. At lower values, it might take some time for the LFO to complete a cycle, while higher values will come closer to audible range.

Use the **Sync** field to set if the LFO's rate is synchronized with the tempo. You can select one of several time divisions (a **.** indicates a dotted note; a **T** indicates a triplet-based time division). When **None** is selected, **Sync** is off.

Use the **Destinations** sliders to determine how much the LFO affects the pitch of the sound (**Pitch**), the cutoff frequency of the filter (**Filter**), the volume level of the sound (**Amp**) and panning of the sound (**Pan**).

## Effects

You can select up to four insert effects for each pad. To learn how to use insert effects in MPC X, please see [General Features > Effects > Insert Effects](#).

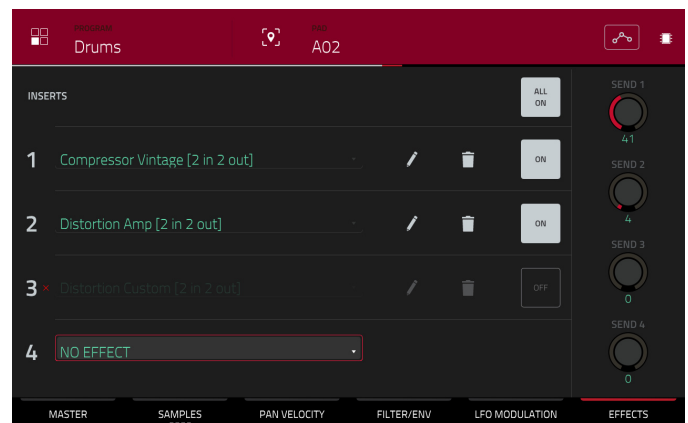
### To add an effect:

1. Double-tap the desired **Inserts** slot. A list of effects will appear.
2. Swipe up or down to move through the list.

You can tap the **Type** and **Manufacturer** buttons to sort your effects by those categories.

3. **To load an effect, double-tap it, or tap **Select**.**

**To close the list, tap **Close**.**



**To remove an effect from its slot, tap the trash can icon.**

**To enable or disable the effect, tap the **On/Off** button for the slot.**

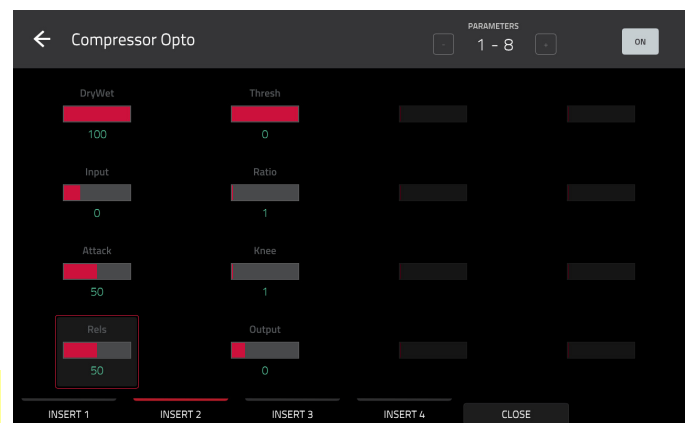
**To enable or disable all four insert effects, tap the **All On/Off** button in the upper-right corner.**

**To adjust the effect's parameters, tap the pencil icon.** Use the **sliders** to set the value of each parameter. These values affect only this instance of the effect; insert effects are not global.

The audio of the pad will be routed to send effects (if you have any loaded) at their designated send levels. The send effects will then return the audio at the designated return levels.

Use the **Send** knobs to set the volume level of the signal the pad will route to each send effect.

**Important: To set the send level, use, you have to load an effect into the corresponding send effect slot in the Channel Mixer. See [Channel Mixer > Returns](#) to learn more how to do this. To learn about send effects in MPC X, please see [General Features > Effects > Send/Return Effects](#).**

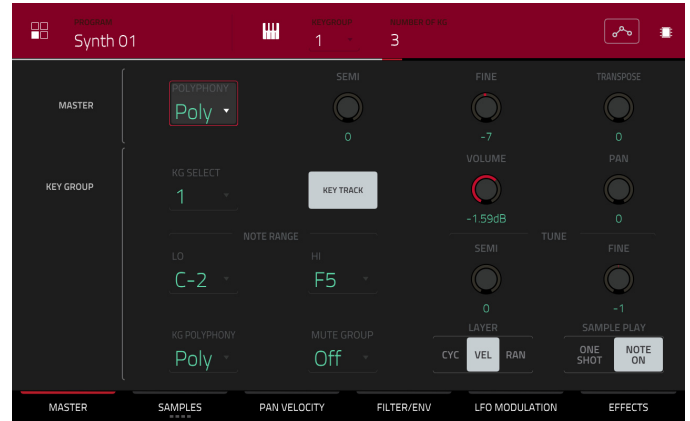


## Keygroup Programs

When using keygroup programs, Program Edit Mode lets you edit the parameters for each keygroup.

**To select a keygroup**, press a **pad** within that keygroup. Its parameters will appear on the screen immediately. Alternatively, use the **Keygroup** field at the top of the touchscreen.

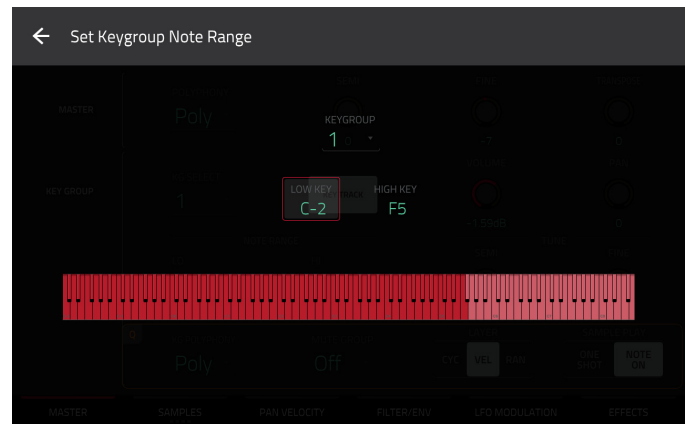
**To view a specific tab of parameters**, tap the **Master**, **Samples**, **Pan Velocity**, **Filter Env**, **LFO Modulation**, or **Effects** button at the bottom of the touchscreen. You can tap the **Samples** button multiple times to cycle through its four available sections.



**Number of KG** (keygroups) lets you create up to 128 keygroups within a keygroup program. This is useful when working with multi-samples. For example, if you want to create a realistic piano, you can use different keygroups (e.g., 88 for a grand piano) with every keygroup containing its own sampled note (with up to four possible velocity layers).

Tap the **Keygroup** field to select a keygroup to edit. You can also select **All** to edit all keygroups simultaneously.

Tap the **piano-keys icon** to edit the note range of the current keygroup. This will open the **Set Keygroup Note Range** window. This lets you restrict the key range used for a sample's playback. Only notes with a key number higher or equal (**Low Key**) or lower and equal (**High Key**) to the selected value will trigger a sound.



### Tips:

Alternatively, you can set the current keygroup's note range by using the **Lo** and **Hi** fields under **Note Range** in the **Master** tab.

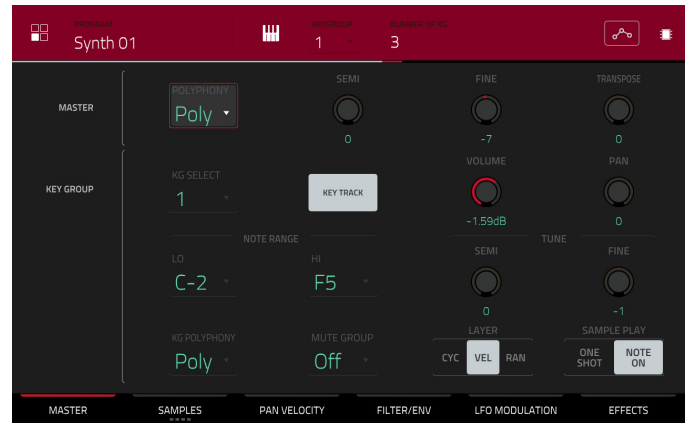
Set the **Lo** parameter to **A0** and the **Hi** parameter to **C8** to emulate the range of a standard 88-key piano.

The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

## Master

In the Master tab, you can set the playback mode and tuning for the overall program.

**Polyphony** sets the playback mode for the program's keygroups. In **Mono Mode**, only one keygroup will sound at a time. If a keygroup is played while another (or the same one) is still playing its sample/samples, the new keygroup will immediately mute all other currently playing keygroups in that program. In **Poly Mode**, several keygroups can be triggered at the same time (limited only by the total number of voices available).



**Semi** lets you tune the program up to 36 semitones up or down.

**Fine** provides fine-tuning of the program up to 99 cents up or down.

**Transpose** shifts the pitch of sample up to 36 semitones up or down. This function is identical to the **Semi** knob; it does not affect the transposition of any connected MIDI controller hardware.

**KG Select** (Keygroup Select) lets you select a specific keygroup for editing. This parameter works in conjunction with the **Number of KG** (keygroups) parameter at the top of the touchscreen, which lets you create up to 128 keygroups within one keygroup program. A default keygroup program contains only one single keygroup. When you have created more than one keygroup with **Number of KG**, use **KG Select** to select any keygroup for editing. **All** selects all available keygroups of a keygroup program for simultaneous editing.

**Key Track** allows you to switch a sample's automatic transposition on or off. If this is off, you will always hear the same pitch of the sample, no matter which note is triggered by pads or a connected MIDI keyboard.

**Level** controls the overall volume level of the loaded sample/samples.

**Pan** controls the overall panning of the loaded sample/samples in the stereo field.

**Note Range** lets you restrict the key range used for a sample's playback. Only notes with a key number higher or equal (**Lo**) or lower and equal (**Hi**) to the selected value will trigger a sound. The settings for **Lo** and **Hi** are also shown in the virtual keyboard in the **Edit Layers** section. Alternatively, tap the **piano-keys icon** to open the **Set Keygroup Note Range** window.

**Tip:** Set the **Lo** parameter to **A0** and the **Hi** parameter to **C8** to emulate the range of a standard 88-key piano.

**Semi** lets you transpose the sample 36 semitones up or down, while **Fine** provides fine-tuning of each layer up to 99 cents up or down.

**Tip:** The **Edit Layers** section has some parameters similar to those in this section (**Level, Pan, Semi, Fine, Note Range**). Remember that **Key Group** parameters control the overall settings for the sample, while **Edit Layer** parameters control the settings for each layer (up to 4).

Use the **KG Polyphony** (keygroup polyphony) field to determine how the keygroup will play. When set to **Mono**, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that program. When set to **Poly**, several pads can be triggered at the same time, limited only by the total number of voices available. You can also select a specific number of pads (**2–32**) so that you can play up to this many pads at the same time (unless they exceed the total number of voices available).

Use the **Mute Group** field to assign the selected pad to one of the 32 available groups. When pads assigned to the same mute group receive MIDI notes, the last pad played will silence all other pads in that mute group. A mute group affects pads within that program only; mute groups do not affect pads in other programs.

**Layer Play** determines how multiple samples assigned to the same pad are played:

- **Cycle (Cyc):** Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc.
- **Velocity (Vel):** The pad will switch between layers depending on how hard you press a pad.
- **Random (Ran):** Each time the pad is played, it will play one of its layer's samples at random.

**Sample Play** determines how much of the sample is played:

- **One Shot:** The entire sample will play from start to end. Use this when you want to play short sounds.
- **Note On:** The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.

## Samples

Each pad can trigger up to four samples, which are assigned in four individual layers. Each layer has identical, independently assignable parameters.

Tap the **Samples** button to cycle through its four available sections.

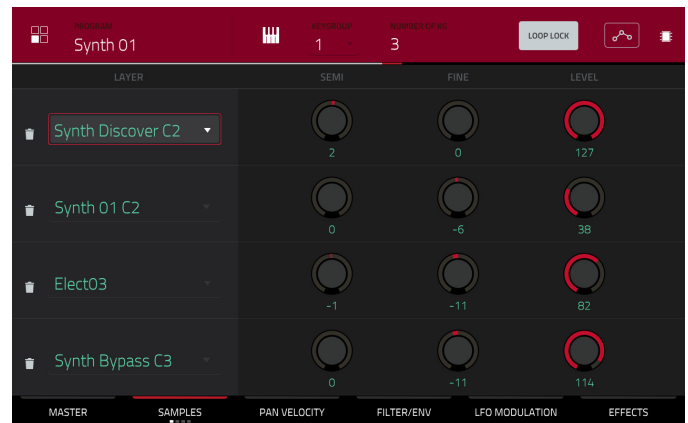
**To turn Loop Lock on or off**, tap the **Loop Lock** button. When on, the loop position is the same as the pad start (as determined in the third and fourth **Samples** tabs). When off, the loop position is independent from the pad start.

Use the **Sample** field to select the sample file for that layer. Remember that the sample has to be loaded into the project's sample pool beforehand. For information on how to load samples into a project, please see the [Browser](#) chapter.

**Semi** lets you tune the selected layer 36 up to semitones up or down.

**Fine** provides fine-tuning of each layer by cents.

**Level** lets you adjust the each layer's volume, letting you control the "balance" of the samples assigned to the keygroup.



**Important:** The parameters on the second, third, and fourth **Samples** tabs work in conjunction with Chop Mode (in Sample Edit Mode). Here's how it works:

When working in Sample Edit Mode and using Chop Mode to divide a sample into slices for your pads, you can convert a slice using **Non-Destructive Slice** or **Pad Parameters**.

A **Non-Destructive Slice** will let its pad (keygroup) to refer to that slice when you press it; the original sample remains intact and each slice marker is like a "bookmark" for a pad. In Program Edit Mode, you'll see that the pad/layer to which it's assigned has its **Slice** drop-down menu set to the corresponding **slice number** in the original sample. Playing that pad will cause it to refer to that slice marker like a "bookmark" instead of creating an entirely new sample of that slice. This means that you no longer have to clutter your Project with a new sample for every slice (though you can still use this earlier method, if you prefer).

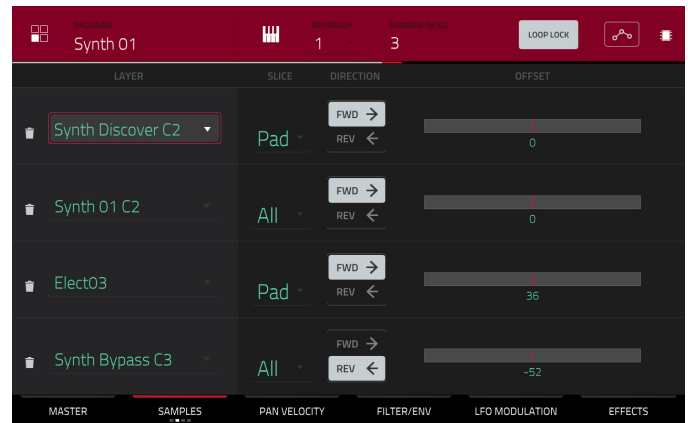
A slice converted using **Pad Parameters** is very similar to a non-destructive slice described above. The difference is that in Program Edit Mode, the pads/layers they're assigned to have their **Slice** drop-down menus set to **Pad** (instead of the slice number), and the **Pad Start** and **Pad End** points will correspond to the slice markers in the original sample.

Use the **Slice** field to select what part/parts of the sample will play:

**All:** The entire sample will play.

**Pad:** The sample will play from the **Pad Start** position to the **Pad End** position, described [below](#). This also lets you activate **Pad Loop**.

**Slice 1, 2, 3, etc.:** If you have sliced the sample in Chop Mode, you can select which slice will play when you trigger the pad.



Use the **Direction** selector to select in which direction the sample will play:

**Fwd:** The sample will play in the normal forward direction.

**Rev:** The sample will play in reverse.

Use the **Offset** slider to determine a time offset for the sample's playback.

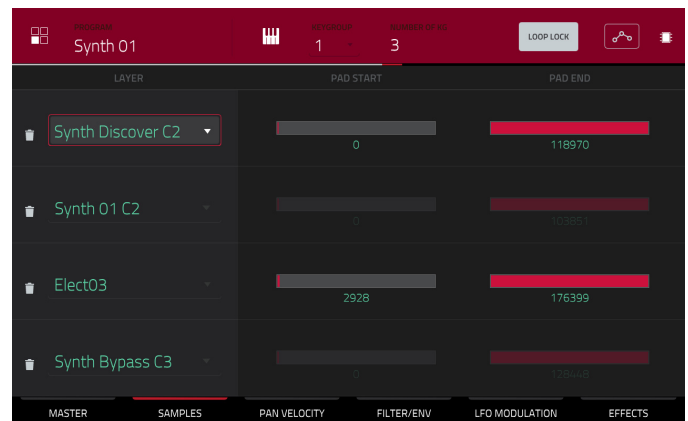
**Positive values** (right of center): When the pad is played, playback will start immediately but at a later point in the sample specified by the offset value.

**Negative values** (left of center): When the pad is played, playback will be delayed by the amount specified by the offset value.

Use the **Pad Start** slider to determine the position (in samples) where the pad's playback will start. The minimum value is **0**, and the maximum value is the **Pad End** value.

**Note:** When **Loop Lock** is on, the loop position (as determined in the fourth **Samples** tab) is the same as the pad start. When off, the loop position is independent from the pad start.

Use the **Pad End** slider to determine the position (in samples) where the pad's playback will stop. The minimum value is the **Pad Start** value, and the maximum value is the sample's total length (in samples).



Use the **Pad Loop** button to cycle through the available Pad Loop modes.

**Important:** For Pad Loop to work, you must (1) set the **Sample Play** field to **Note On** instead of One Shot and (2) set the **Slice** field to **Pad** instead of All or a slice number.

**Off:** The sample will not loop.



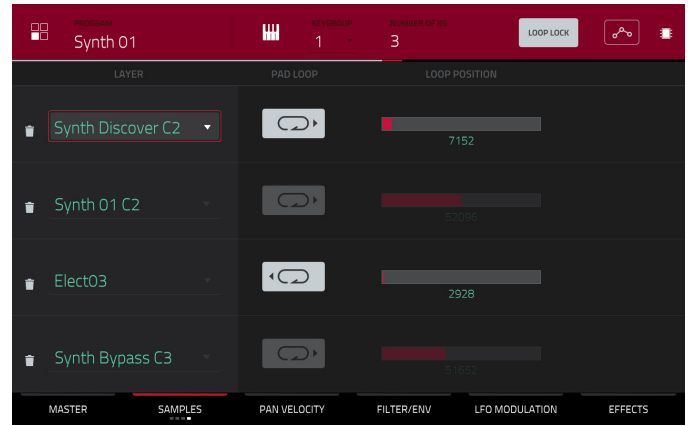
**Forward:** You can hold down the pad to cause that sample to repeat from the **Loop Position** to the end of the sample. Release the pad to stop the repeating playback.



**Reverse:** You can hold down the pad to cause that sample to play in reverse, repeating from the end of the sample to the **Loop Position**. Release the pad to stop the repeating playback.



**Alternating:** You can hold down the pad to cause that sample to play from the **Loop Position** to the end of the sample and then play in reverse until it reaches the **Loop Position** again. This will repeat as long as you are holding the pad down. Release the pad to stop the repeating playback.



Use the **Loop Position** slider to determine the position (in samples) where the pad's playback will repeat when Pad Loop is activated.

**Note:** When **Loop Lock** is on, the loop position is the same as the pad start (as determined in the third **Samples** tab). When off, the loop position is independent from the pad start.

## Pan Velocity

Use the **Pan knob** to adjust the stereo placement of the respective layer.

Use the **Vel Start** and **Vel End** knobs to define the velocity range of each layer.

A range from **0** to **127** lets the layer respond to the entire velocity range which is input from the respective pad while, for example, a range from **100** to **127** lets the layer respond only to higher velocity levels. By assigning several samples of one instrument, you can create a realistic-sounding “multi-sample” by adjusting the velocity ranges of each layer accordingly.

For example, you may have three samples of a piano key with low force, medium force, and high force. You can set each sample to a layer and set the Velocity ranges so only low velocities trigger the low-force sample, only mid-range velocities trigger the medium-force sample, and only high velocities trigger the high-force sample.

Use the **Root Note** menu to set the starting note of each loaded sample. **Smp** denotes the sample's default pitch.



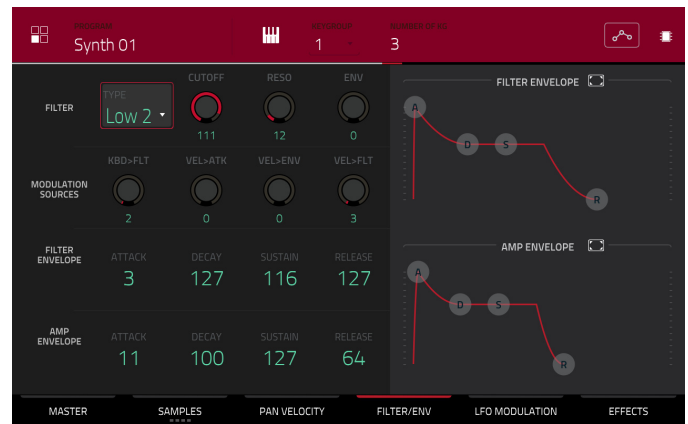
## Filter Envelope

Use the **Type** field to select a filter for the selected pad. See [Appendix > Glossary > Filter](#) for an explanation of the available filter types.

Use the **Cutoff** knob to set the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Use the **Reso** knob to set the resonance/emphasis of the frequencies around the cutoff point.

**Tip:** Use values lower than **80** to give more brilliance to the sound. At values higher than **80**, the sound will result in a strong audible boost around the cutoff frequency.



Use the **Env** to determine the amount of influence the filter envelope has on the cutoff frequency. Higher settings will increase the modulation of the filter by the envelope; lower settings will result in only subtle changes of the filter **Cutoff** over time.

**Tip:** To give a sound a more distinctive attack, increase the **Env** setting and set low **Atk** and **Decay** values as well as a medium-low **Sust** value of the **Filter Envelope**. This will start a sound with the filter opened and close it shortly afterward, giving it a bright start followed by a darker sustain. String sounds, on the other hand, can sound much more “alive” with low **Env** settings and a high **Atk** value, resulting in a slight fade-in of the higher frequencies.

Use the **Modulation Sources** knobs to set how much velocity is required to modulate certain other parameters:

**Kbd>Flt** (Keyboard→Filter) sets how much aftertouch data (from a pad) is needed to modulate the cutoff frequency.

**Vel>Atk** (Velocity→Attack) sets how much velocity is needed (for a triggered pad) to modulate the Attack phase for the Amp envelope.

**Vel>Env** (Velocity→Envelope) enables velocity information to control the amount of the filter envelope’s effect on the cutoff frequency.

**Vel>Flt** (Velocity→Filter) uses the velocity of a pad to modulate the cutoff frequency directly.

The **Filter Envelope** controls affect the filter frequency. Use the fields or tap and drag the “handles” of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope’s influence on the filter frequency with the **Env** knob. See [Anatomy of an Envelope](#) to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. Use the fields or tap and drag the “handles” of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope’s influence on the filter frequency with the **Env** knob. See [Anatomy of an Envelope](#) to learn about the envelope parameters.

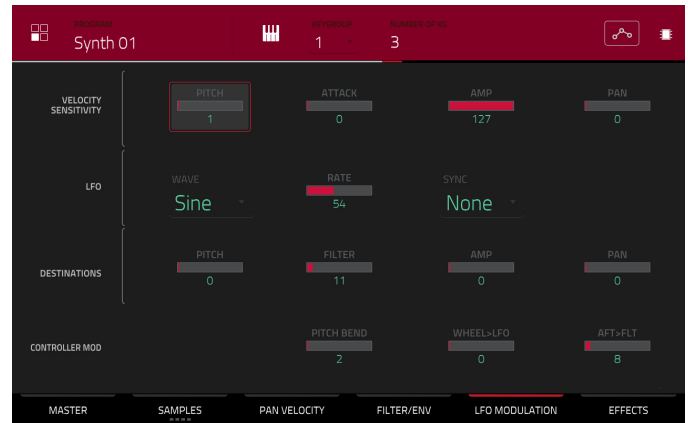


## LFO Modulation

The Velocity Sensitivity controls determine how much the velocity affects the pitch of the sound (**Pitch**), the attack of the filter envelope (**Attack**), the volume level of the sound (**Amp**), and the panning of the sound (**Pan**).

When you press a pad softly, only minimal modulation is applied. When you press it harder, the modulation amount also gets stronger depending on the setting of the corresponding knob.

A low-frequency oscillator (LFO) generates a periodic waveform with an adjustable frequency and shape which can be used for modulation purposes.



Use the **Wave** field to select the LFO waveform type:

- Sine** (best suited for smooth modulations)
- Triangle** (best suited for smooth modulations)
- S&H** (samples a random value and holds it until the next value is generated)
- Saw** (can generate interesting filter or volume changes)
- Saw Down** (can generate interesting filter or volume changes)
- Square** (interesting results with hard-panning modulations)
- Noise** (generates random values and glides)

Use the **Rate** field to determine the LFO frequency when **Sync** is on. At lower values, it might take some time for the LFO to complete a cycle, while higher values will come closer to audible range.

Use the **Sync** field to set if the LFO's rate is synchronized with the tempo. You can select one of several time divisions (a **.** indicates a dotted note; a **T** indicates a triplet-based time division). When **None** is selected, **Sync** is off.

Use the **Destinations** sliders to determine how much the LFO affects the pitch of the sound (**Pitch**), the cutoff frequency of the filter (**Filter**), the volume level of the sound (**Amp**) and the panning of the sound (**Pan**).

The **Controller Mod** section determines the influence of additional play controllers on various sound parameters.

**Important:** To use these parameters, make sure that a connected MIDI device can send pitch bend messages as well as aftertouch and modulation wheel data.

**Pitch Bend** sets the range (in semitones) of a connected MIDI keyboard's pitch-bend wheel.

**Wheel>LFO** determines how much a connected MIDI keyboard's modulation wheel affects the LFO intensity.

**Aft>Filt** (Aftertouch→Filter Cutoff) determines how much a connected MIDI keyboard's aftertouch data affects the filter cutoff.



## Effects

You can select up to four insert effects for each keygroup. To learn how to use insert effects in MPC X, please see [General Features > Effects > Insert Effects](#).

**Important:** When using keygroup insert effects, they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

### To add an effect:

1. Double-tap the desired **Inserts** slot. A list of effects will appear.
2. Swipe up or down to move through the list.

You can tap the **Type** and **Manufacturer** buttons to sort your effects by those categories.

3. **To load an effect**, double-tap it, or tap **Select**.

**To close the list**, tap **Close**.

**To remove an effect from its slot**, tap the **trash can icon**.

**To enable or disable the effect**, tap the **On/Off** button for the slot.

**To enable or disable all four insert effects**, tap the **All On/Off** button in the upper-right corner.

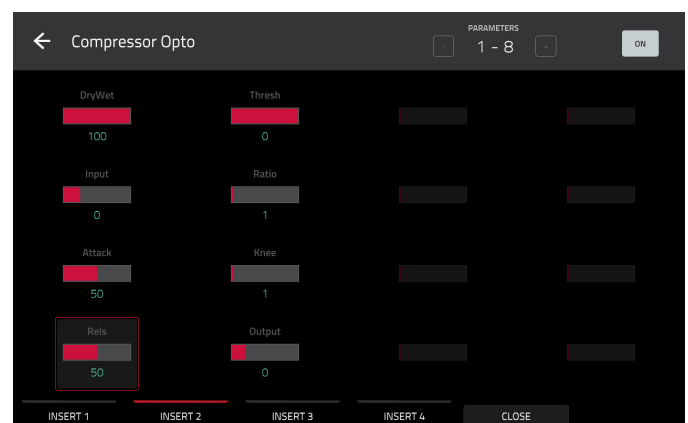
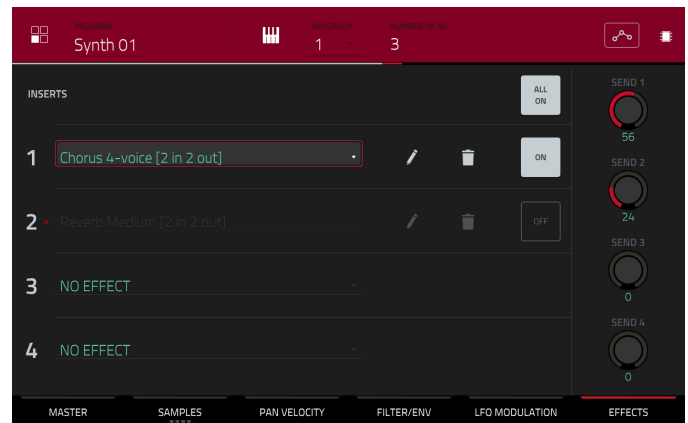
**To adjust the effect's parameters**, tap the **pencil icon**. Use the **sliders** to set the value of each parameter. These values affect only this instance of the effect; insert effects are not global.

The audio of the program will be routed to send effects (if you have any loaded) at their designated send levels. The send effects will then return the audio at the designated return levels.

Use the **Send** knobs to set the volume level of the signal the program will route to each send effect.

You can select up to four send effects for each keygroup, but remember that they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

**Important:** To use a send effect, you have to load an effect into the corresponding send effect slot in the Channel Mixer. See [Channel Mixer > Returns](#) to learn more how to do this. To learn about send effects in MPC X, please see [General Features > Effects > Send/Return Effects](#).

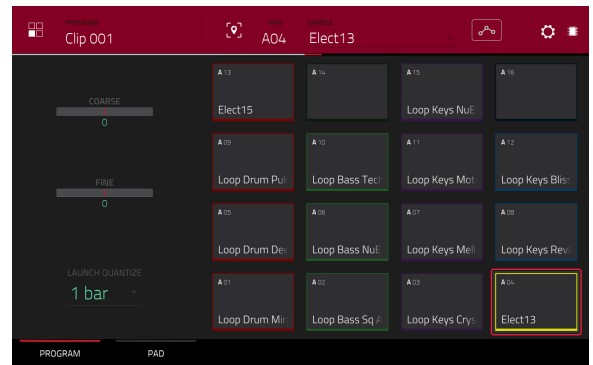


## Clip Programs

When using clip programs, Program Edit Mode lets you assign a sample (a loop called a **clip**) to each pad in a single bank. You can also edit various settings to determine how each pad launches its assigned clip.

**To select a pad**, press it. Its parameters will appear on the screen immediately.

**To view a specific tab of parameters**, tap **Program** or **Pad** the bottom of the touchscreen. The **Program** tab is where you assign clips to pads (see [Program](#) below). The **Pad** tab is where you determine how each pad plays its clip (see [Pad](#) below).



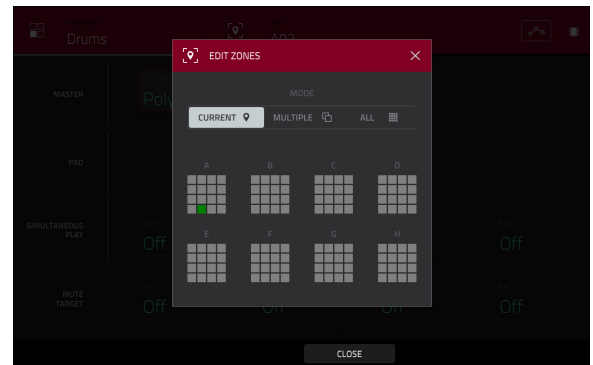
Tap the **location icon** at the top of the touchscreen (between the **Program** and **Pad** fields) to open the **Edit Zones** window, which is a feature for drum programs and clip programs. This window displays an overview of any selected pads. Use the **Mode** selector to set how the selected pads will be edited:

**Current:** Only the currently selected pad can be edited.

**Multiple:** All selected pads can be edited simultaneously.

**All:** All pads can be edited simultaneously.

**To close the window**, tap **Close**, the **X**, or anywhere outside the window.



The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

The Settings window lets you configure certain Audio Edit Mode settings.

**To view the Settings**, tap the **gear icon**.

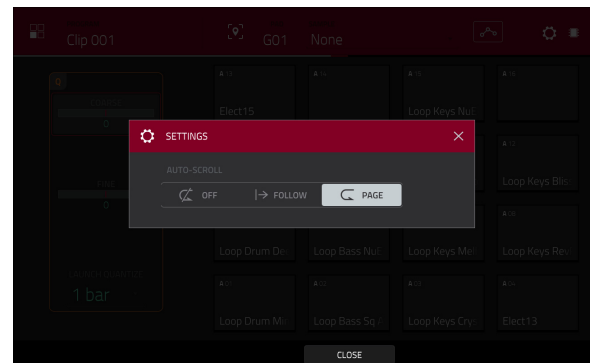
Use the **Auto-Scroll** selector to set how the screen behaves relative to the audio playhead while viewing the **Pad** tab.

**Follow:** Depending on the zoom setting, the waveform display will scroll along in the background while keeping the audio playhead centered.

**Page:** The waveform display will move to the “next page” to follow the audio playhead.

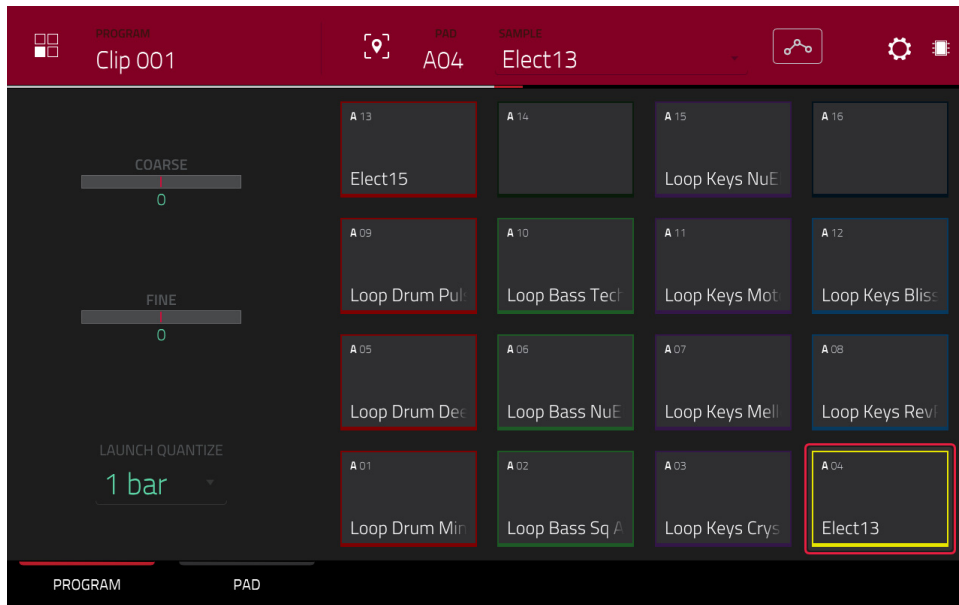
**Off:** The waveform display will not move at all.

These functions also apply to the sample waveform in Sample Edit Mode.



## Program

This tab is where you can assign clips to each pad and adjust the program's overall tuning and quantization.



**To assign a sample to a pad**, press or tap a pad to select it (it will play its assigned samples, if any). Tap the **Sample** field, and then use the **data dial** or **-/+** buttons to select a clip. Alternatively, double-tap the **Sample** field, and then tap a clip to select it.

**To clear the assigned clip from a selected pad**, assign a sample to a pad, but select **None**.

**Coarse** lets you transpose the program up to 36 semitones up or down.

**Fine** provides fine-tuning of the program up to 99 cents up or down.

Use the **Launch Quantize** field to set the quantization of the program in bars (or subdivisions of a bar).

## Pad

The upper half of the touchscreen shows the clip waveform. The lower half shows the editing controls.

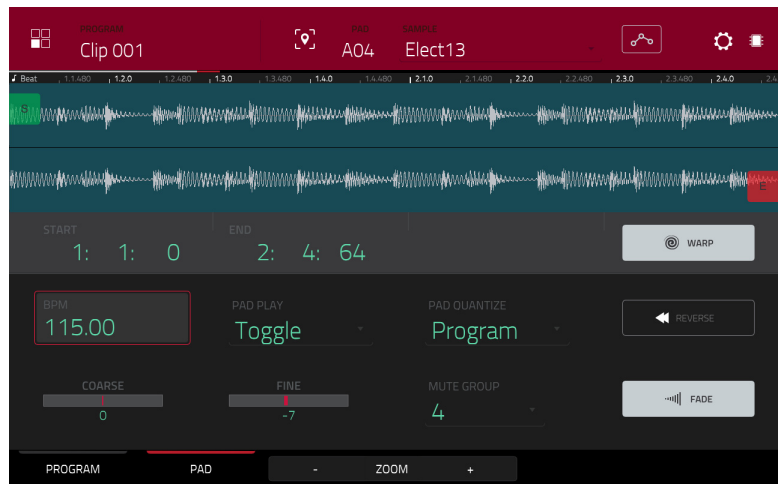
The waveform display shows the “active” section of the clip waveform. Swipe left or right on the waveform to move through it.

Above the waveform is the timeline, shown in bars, beats, and ticks.

The green marker and red marker are the start point and end point (respectively). These two points define the region of the sample that will be played.

**To move the start point or end point of the selected region,** do any of the following:

- Tap and drag the **S** or **E** marker left or right.
- Use the **Start** or **End** fields shown below the waveform.
- Use the **first** row of **Q-Link knobs (Layer 1 Start)** to adjust the start point or the **second** row of **Q-Link knobs (Layer 1 End)** to adjust the end point. The right-most Q-Link knobs (12 and 16) provide coarse adjustment. The left-most Q-Link knobs (9 and 13) provide fine adjustment.



Use the **Zoom +** or **Zoom -** buttons at the bottom of the touchscreen to zoom in or out (respectively) of the waveform.

Below is a brief step-by-step process so you can get familiar with setting up a clip. Continue reading the rest of this chapter to learn how to use the parameters in this window.

### To assign and edit a clip:

1. Assign a sample to a pad using the **Program** tab (described [earlier](#)). For example, start with a four-bar drum loop.
2. In the **Pad** tab, note that the **BPM** field has a value, which is automatically detected.

If the **Warp** button is not already on, tap it. The Warp function keeps the loop in time with the sequence tempo or the master tempo.

3. If you need to edit the loop’s tempo manually, do any of the following:
  - Tap the **BPM** field, and then use the **data dial** or **-/+** buttons to change the value.
  - Double-tap the **BPM** field, and then use the numeric keyboard that appears to enter a value.
4. Let’s shorten the loop to a two-bar loop by doing any of the following:
  - Tap and drag the start point (**S**) or end point (**E**) marker.
  - Tap the **beat**, **bar**, or **tick** value of the **Start** or **End** fields, and then use the **data dial** or **-/+** buttons to change the value.
  - Double-tap the **beat**, **bar**, or **tick** value of the **Start** or **End** fields, and then use the numeric keyboard that appears to enter a value.

Set the locations properly to ensure the loop’s timing is correct—neither too short nor too long. When the loop repeats, it should feel seamless.

5. If the **Fade** button is not already on, tap it. This applies a very small fade-in and fade-out at the start and end of the clip to prevent “clicks” and glitches if start point or end point is not at a “zero-crossing.”
6. If you need to edit the loop’s pitch manually, do any of the following:
  - Tap the **Coarse** or **Fine** slider, and then use the **data dial** or **-/+** buttons to change the value.
  - Use **Q-Link Knobs 1 and 2 (Layer \_\_ Semi Tune and Layer \_\_ Fine Tune)** to change the value of the **Coarse** or **Fine** sliders.
  - Double-tap the **Coarse** or **Fine** slider, and then use the numeric keyboard that appears to enter a value.

The **Coarse** slider adjusts the pitch in semitones. The **Fine** value adjusts the pitch in cents. You will hear the pitch adjust in real time.

Tap **Warp** to lengthen or shorten the clip without changing its pitch, and use the **BPM** field to change the tempo. Use the **Coarse** and **Fine** sliders if you want to change the pitch.

Use the **Pad Play** field to determine the clip is played.

**One Shot:** When you press the pad, the entire clip will play from start to end and then stop.

**Toggle:** When you press the pad, the entire clip will play from start to end and loop indefinitely. Pressing it again—or launching another in the same mute group—will stop its playback. This is the most common usage.

Use the **Pad Quantize** field to set the quantization of the pad in bars (or subdivisions of a bar). When set to **Program** so it uses the same quantization as the overall program (determined by the **Launch Quantize** field). When set to **Off**, the pad will not follow any quantization at all.

Tap **Reverse** to reverse the clip’s audio.

**Coarse** lets you transpose the pad up to 36 semitones up or down.

**Fine** provides fine-tuning of the pad up to 99 cents up or down.

Use the **Mute Group** field to assign the selected pad to one of the 32 available groups. When pads assigned to the same mute group receive MIDI notes, the last pad played will silence all other pads in that mute group. A mute group affects pads within that program only; mute groups do not affect pads in other programs.

By default, each column of pads is assigned to the same mute group. This means only one pad from each column can be playing its clip at a time. You can use the **Mute Group** field to configure this any way you like, though.

Use the **Fade** button to apply a very small fade-in and fade-out at the start and end of the clip. This can help prevent “clicks” and glitches that may occur if the start point or end point is not placed at the waveform’s “zero-crossings.”

## Plugin Programs

For plugin programs, you will see an overview of all available plugin parameters with a slider for each.

**Important:** Plugin programs are available only while using MPC X in Controller Mode with the desktop version of the MPC software.

Use the sliders to set the value of each parameter.

Use the six tabs at the bottom of the touchscreen to access the available parameters.

**To assign a parameter to one of the sliders,** use the MPC software.

**Note:** To see user guide in the MPC software and learn how to do this, click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.



## MIDI Programs

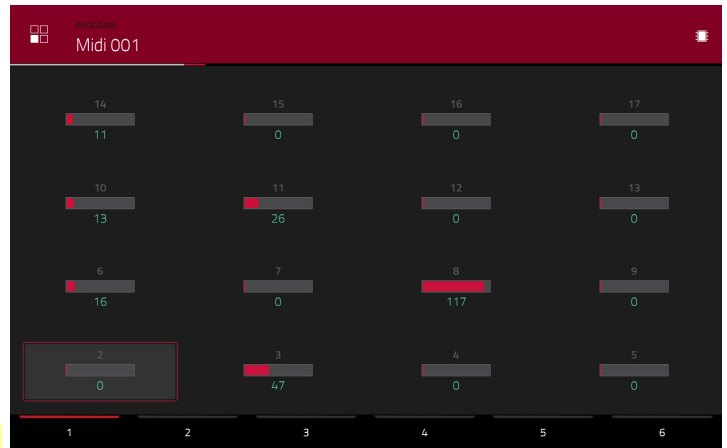
For MIDI programs, you will see an overview of all available MIDI CCs with a slider for each.

Use the sliders to set the value of each parameter.

Use the six tabs at the bottom of the touchscreen to access the available parameters.

To assign a parameter to one of the sliders, use the MPC software.

**Note:** To see user guide in the MPC software and learn how to do this, click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.



## CV Programs

For CV programs, you will see an overview of all available CV outputs with a slider for each.

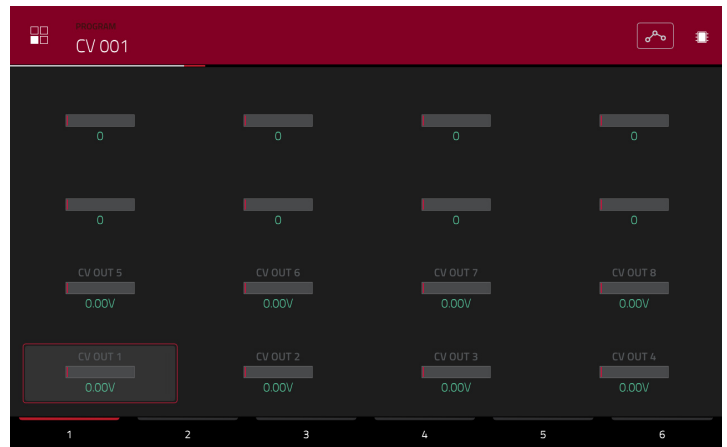
The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

Use the sliders to set the value of each parameter.

Use the six tabs at the bottom of the touchscreen to access the available parameters.

To assign a parameter to one of the sliders, use the MPC software.

**Note:** To see user guide in the MPC software and learn how to do this, click the **Help** menu, select **MPC Help**, and select **MPC User Manual**.



## Anatomy of an Envelope

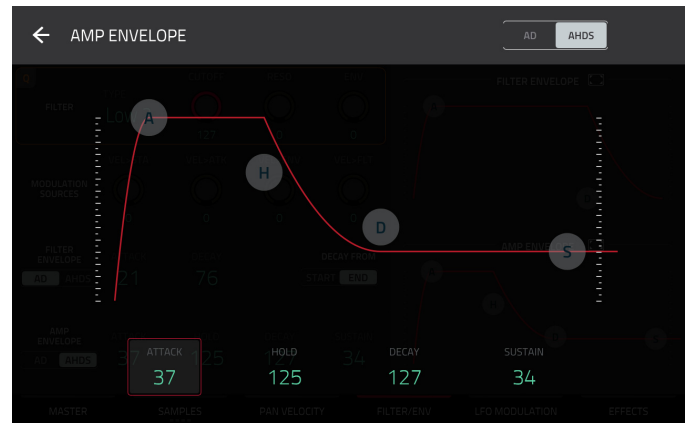
An envelope creates a variable control signal. It can be used, for instance, to modulate the filter settings of a sound over a given period of time.

For drum programs, use the **AD/AHDS** selector to select an AD or AHDS envelope. When **Sample Play** is set to **Note-On**, it will use an ADSR envelope.

Keygroup programs always use **AHDS** envelopes. When **Sample Play** is set to **Note-On**, it will use an **ADSR** envelope.

With **AHDS** envelopes, the following happens when you trigger a sample:

1. Within the period of time you have defined with the attack (**Atk**), the sample volume rises to its maximum value.
2. The sample's maximum volume will be maintained during the **Hold** phase.
3. During the **Decay** phase, the sample's volume will gradually drop to the sustain level.
4. The sample's volume will stay at the sustain level (**Sust**) until the pad is released.

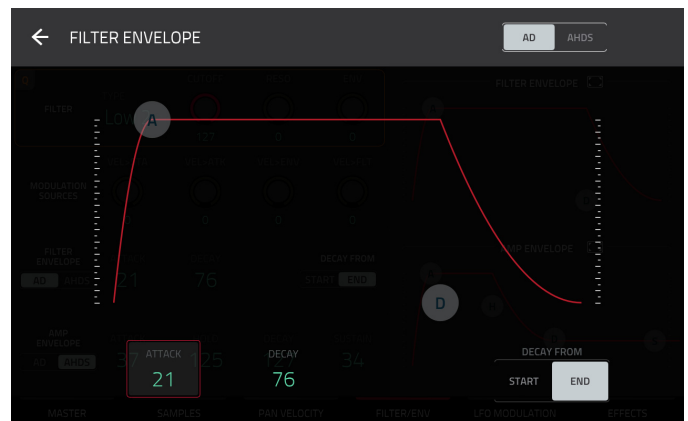


With **AD** envelopes, the following happens when you trigger a sample:

1. Within the period of time you have defined with the attack (**Atk**), the sample volume rises to its maximum value.
2. The sample's maximum volume will be maintained until its **Decay** phase, when the sample's volume will gradually drop to zero over the set duration. Click the **Type** drop-down menu to select how the decay functions:

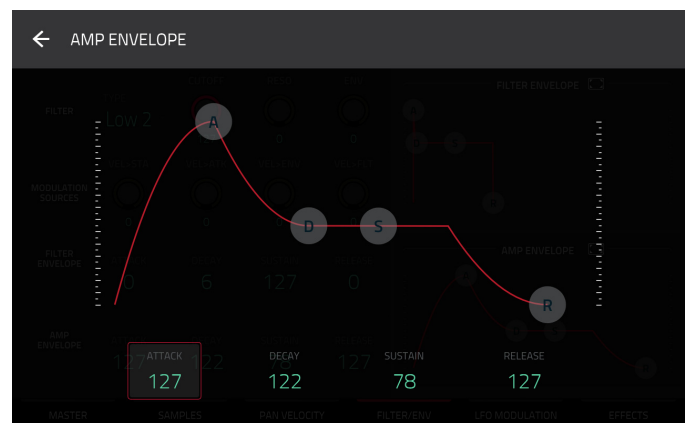
**Decay From Start:** The volume will start decreasing immediately after reaching its maximum level.

**Decay From End:** The maximum volume will be maintained for a hold phase until it reaches the decay phase.



With **ADSR** envelopes, the following happens when you trigger a sample:

1. Within the period of time defined by **Attack**, the sample volume rises to its maximum value.
2. During the **Decay** phase, the sample's volume will gradually drop to the **Sustain** level.
3. The sample's volume will stay at the **Sustain** level until the **Release** phase begins.
4. The sample's volume will drop to "zero" over the duration set by **Release**.



## Looper

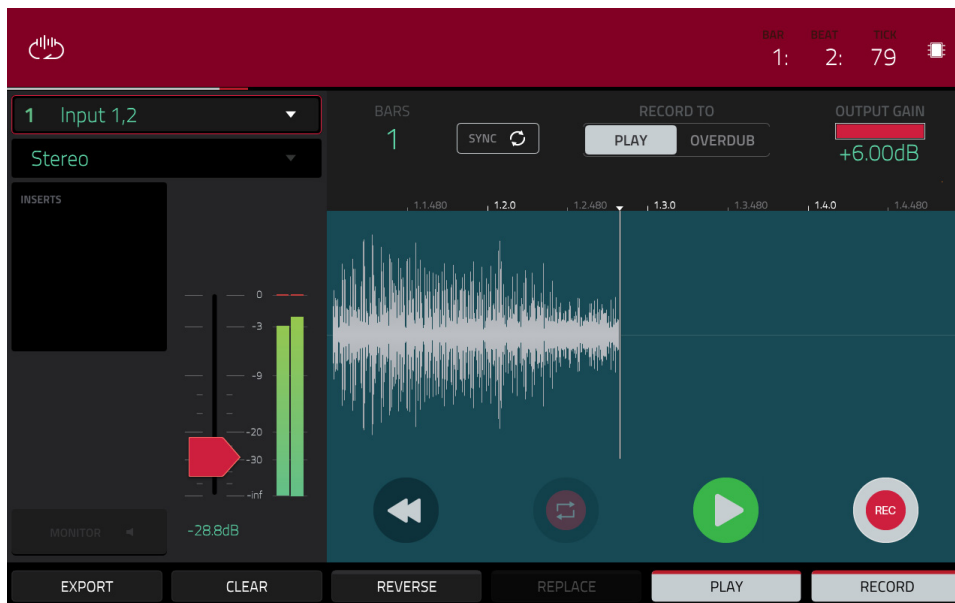


LOOPER

The Looper lets you record and overdub audio in real time—a great tool for live performance as well as spontaneous moments in the studio. You can export the loop as a sample to use in your project.

To open the Looper, do either of the following:

- Press **Shift+Sampler/Looper**.
- Press **Menu**, and then tap **Looper**.



Below is a brief step-by-step process so you can get started quickly. Continue reading the rest of this chapter to learn how to use the Looper in different cases.

### To get started using the Looper:

1. Make sure to reduce the volume levels of your audio source and speakers/headphones/monitors before you make any connections to avoid “pops” or feedback.
2. Connect a synthesizer, audio player, etc. to the input/inputs of your MPC X.
3. Turn the **Rec Vol** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be “peaking” constantly).
4. Set the recording controls as desired (described in this chapter).
5. Tap the **Record To** selector so **Overdub** is selected.
6. Tap the **Rec/Record** button in the lower-right corner to record-arm the Looper.
7. Play your audio source. The Looper will start recording immediately when the input level reaches the threshold value. Alternatively, tap **►/Play** at the bottom of the touchscreen to manually start recording.

Each time the Looper repeats, its contents are being overdubbed—a new layer of audio will be added each time you let the Looper repeat as it records.

**Tip:** You can record a loop while playing a sequence in the background for reference.

8. **To stop recording**, tap **►/Play** at the bottom of the touchscreen.

**To export your loop as a sample**, tap **Export** to open the **Keep or Discard Sample** window.

**To clear the contents of the Looper**, tap **Clear**.

The time counter at the top of the touchscreen the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.



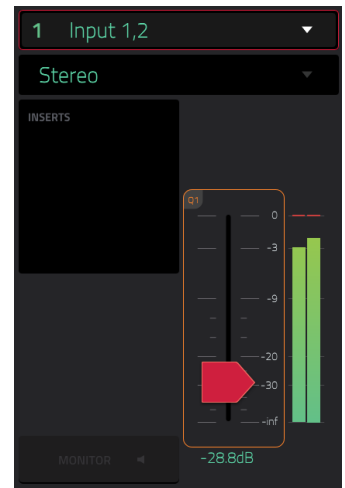
The upper-left **Input Source** field defines whether you are going to record an external audio signal (**Input 1,2**, **Input 3,4**, or one of **Input 1–4**) or an internal signal from within MPC X (**Resample L**, **Resample R**, or **Resample L+R**).

Resampling does not require an audio connection because the source is within MPC X and is therefore recorded without any loss in audio quality. You can, for example, use Resample to record two or more samples by pressing the corresponding pads simultaneously.

Use the second upper-left **Mono/Stereo** field to choose whether your recorded loop will be monaural (**Mono**) or binaural (**Stereo**).

The **Inserts** field shows any enabled or disabled effects for the Looper. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

**Important:** These effects are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about how effects work in [General Features > Effects](#).



Tap the **Monitor** button to enable or disable input monitoring.

When **on**, the audio you hear in your headphones will be taken **before** it reaches the Looper, ensuring zero latency. You can turn input monitoring on only if the **Input Source** field is set to an input, not to a **Resample** setting.

When **off**, the audio you hear in your headphones will be taken **after** it is processed in the Looper, so there may be some latency, but you will hear the audio source as it sounds in the recording.

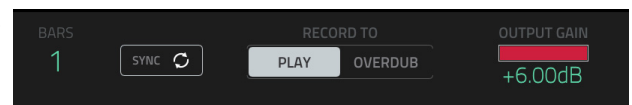
**Tip: To avoid possible clicks or feedback while input monitoring, reduce the level of the audio sources.**

Use the **threshold slider** to adjust the threshold. Alternatively, turn **Q-Link Knob 1 (Threshold)**. The threshold slider will work only when **Sync** is **off** (see [below](#)).

When the Looper is record-armed, it automatically starts recording when the level of the incoming source exceeds this setting. If you set it too high, the recording may not start when you play the input source, or the start of the material you wanted to record may be missing. If you set it too low, the recording may start too early, before you play the external source. Set this parameter to an appropriate level using the level meter.

**To reset the “peak hold,”** which shows the highest level of your input signal in the level meter, tap it.

Use the **Bars** field to define the length of your loop. Regardless of how much or how little audio you record, this is how long your loop will be.



Use the **Sync** button to sync or un-sync the looper with sequence playback. When on, the Looper will stay in step with your current sequence. When you play or record into the Looper, it will wait until the sequence starts playing Bar 1 to start.

Use the **Record To** selector to determine the loop recording behavior:

**Play:** Before recording, you must first tap the **▶/Play** button on the touchscreen, which will start playing the Looper.

**Overdub:** Before recording, you must first tap the **Rec/Record** button in the lower-right corner to record-arm the Looper.

Use the **Output Gain** slider to set the output signal level of the Looper.

## To record with the Looper:

### Important:

To record without erasing any audio you've already recorded in the loop, use the **Overdub** button.

To overwrite the audio you've already recorded, use the **Replace** button.

If **Record To** is set to **Play**:

To start recording, tap the **Replace** or **Overdub** button as the loop is playing. The Looper will start recording immediately.

To stop recording, tap the **Replace** or **Overdub** button. The Looper will stop recording but continue playing.

To stop playback and recording, tap the **▶/Play** button.

If **Record To** is set to **Overdub**:

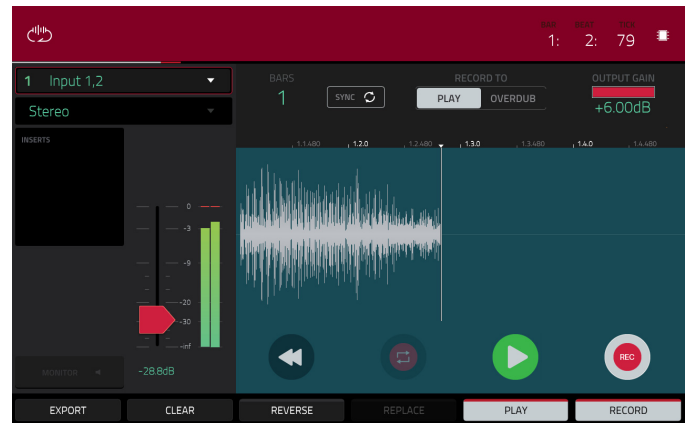
To start recording, tap the **▶/Play** button on the touchscreen.

If **Sync** is off, you can also play your audio source so that the input level reaches the threshold value.

If **Sync** is on, you can also press the **Play** or **Play Start** button to start playing a sequence; recording will start when the sequence starts on Bar 1.

To stop recording, tap **Overdub**. The Looper will stop recording but continue playing.

To stop playback and recording, tap the **▶/Play** button, or press stop to stop sequence playback.



To play or stop the loop (without recording), tap the **▶/Play** button on the touchscreen.

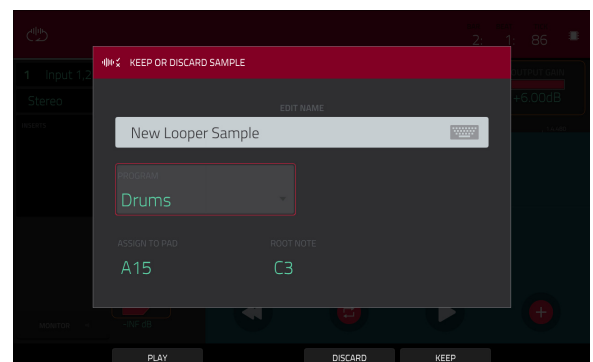
To reverse loop playback, tap **Reverse**. If **Sync** is on, playback will reverse once the Looper's playhead reaches the end of the loop. If **Sync** is off, playback will reverse immediately.

To erase the loop immediately, tap **Clear**.

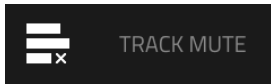
## To export the loop as a sample:

1. Tap **Export** to open the **Export Loop as a Sample** window.
2. Tap the **Edit Name** field and use the virtual keyboard that appears to enter a new name.
3. **Optional:** Use the **Program** field to assign it directly to a program. **To ignore this feature**, select **<none>**.
4. **Optional:** If you're assigning the sample to a program, use the **Assign to Pad** field to assign it to a specific pad. Alternatively, just press the pad. **To ignore this feature**, select **Off**.
5. Use the **Root Note** field to select the sample's root note.
6. **Optional:** Tap and hold your finger on **Play** to play the sample.
7. Tap **Do It** to confirm your choice, or **Cancel** to cancel.

When your loop is done exporting, it will be added to your project's sample pool with the name you entered and will be assigned to the program and pad you selected (if any).



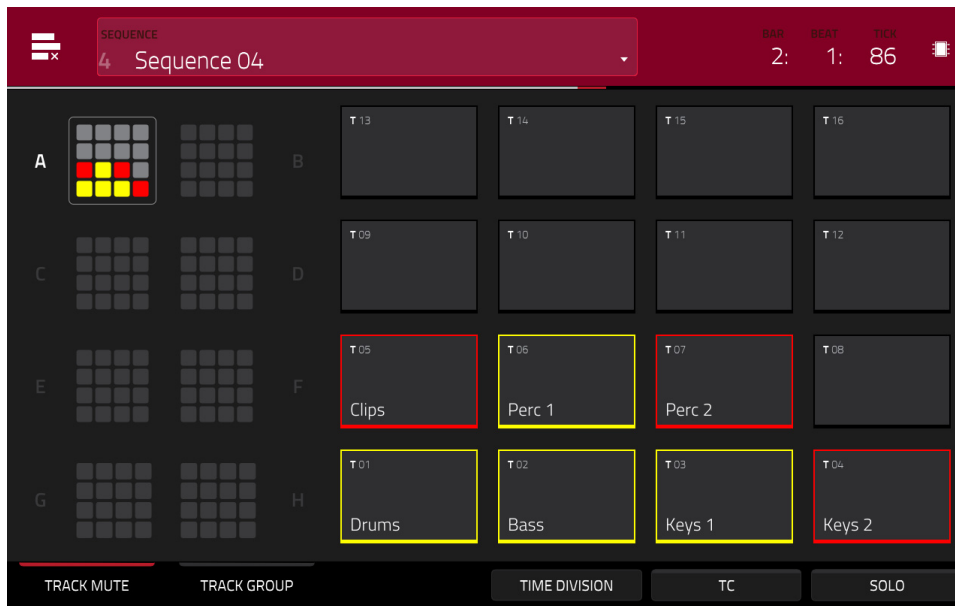
## Track Mute Mode



Track Mute Mode lets you easily mute tracks within a sequence or set track groups, enabling you to mute multiple tracks at once.

To enter **Track Mute Mode**, do either of the following:

- Press **Track Mute**.
- Press **Menu**, and then tap **Track Mute**.



There are two tabs you can view in this mode: **Track Mute** or **Track Group**. Tap each button in the lower-left corner to select it. See the following [Track Mute](#) and [Track Group](#) sections to learn about each.

Use the **Sequence** field at the top of the touchscreen to select a sequence.

The time counter in the upper-right corner shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

**Time Correct** lets you quantize track mutes. This is useful when you want your mutes to line up with a specific time division. For example, with **Time Division** set to **1 Bar**, your mutes will always align with the beginning of the measure immediately after you press the pad.

Tap **Time Division** at the bottom of the touchscreen, and select a value from **1/16** to **2 Bars** (**T** indicates a triplet-based time division).

Tap **TC** at the bottom of the touchscreen to enable or disable the Time Correct feature.

Tap **Solo** to turn track soloing on or off. When on, using Track Mute Mode will solo tracks instead of muting them.

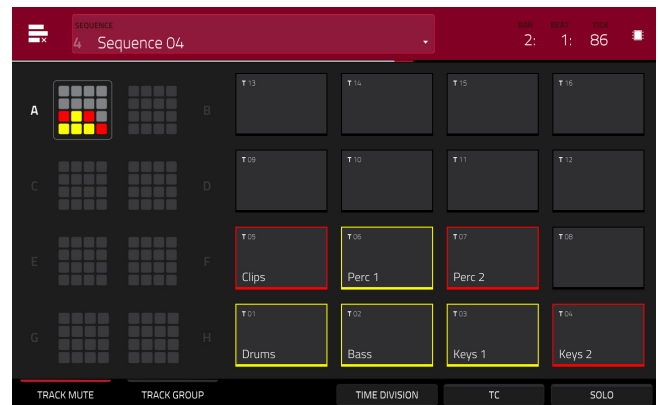
## Track Mute

This is useful if you want to hear a sequence without a particular track (e.g., muting your keyboard track to focus on the bass) or if you want to isolate specific sounds or combinations of sounds that are separated by track.

**Tip:** This function is similar to, but more convenient than, muting tracks one at a time in the Track View.

### To mute tracks in this mode:

1. If the **Track Mute** tab in the lower-left corner is not already selected, tap it.
2. Select the desired pad bank. Use the **Pad Bank** buttons or tap a pad bank shown on the left side of the touchscreen.
3. **To mute or unmute a track**, press the corresponding **pad** or tap it in the touchscreen. Pads for muted tracks are lit **red**. Pads for unmuted tracks are lit **yellow**. Pads for unused tracks do not show any information.



**To assign tracks to track groups within this tab**, turn each of the **Q-Link knobs** (when the **Screen Control Q-Link** button is selected) to assign each of the pads to a track group. The number of each pad's track group is shown in its upper-right corner.

## Track Group

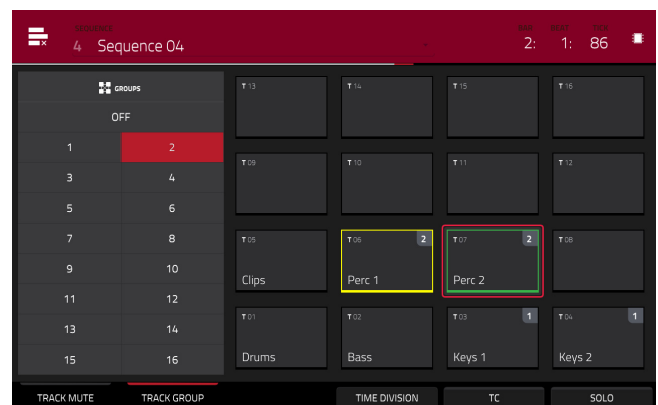
The track group feature extends the concept of track mutes: you can mute or unmute multiple tracks (in a single sequence) by pressing one pad that you have assigned to a track group. This is useful if you want to hear a track without a particular group of sounds or if you want to isolate specific sounds in various combinations. You can create up to 16 different track groups.

### To assign tracks to track groups:

1. If the **Track Group** tab in the lower-left corner is not already selected, tap it.
2. Select the desired pad bank by using the **Pad Bank** buttons.
3. **To select a track to add to a mute group**, press the corresponding **pad** or tap it on the touchscreen. The pad for the selected track is lit **green**. If there are other pads for tracks in the same mute group, they will flash **yellow**.
4. **To add the track to a mute group**, tap the number of the desired mute group.

**To remove the track from the mute group**, tap **Off**.

Alternatively, turn each of the **Q-Link knobs** (when the **Screen Control Q-Link** button is selected) to assign each of the pads to a track group. The number of each pad's track group is shown in its upper-right corner.



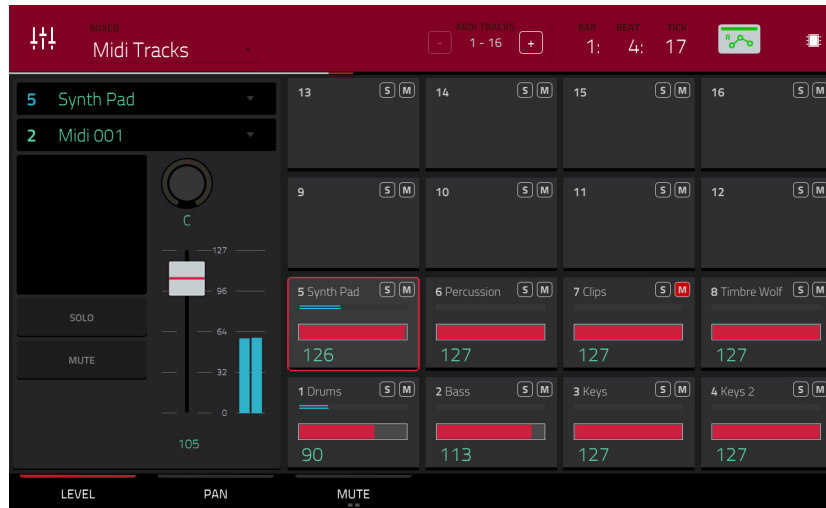
## Channel Mixer



In the Channel Mixer, you can set levels, stereo panning, and other settings for your tracks, programs, returns, submixes (while using MPC X in Controller Mode), and masters.

To open the **Channel Mixer**, do either of the following:

- Press **Ch. Mixer**.
- Press **Menu**, and then tap **Channel Mixer**.



The Channel Mixer works like an audio mixer with various settings for each channel, shown in a 4x4 array. Their functionality is mostly identical. The name of the track, program, or channel is displayed at the top of each one.

Use the **Mixer** field at the top of the touchscreen to select which mixer you want to view: **MIDI Tracks**, **Audio Tracks**, **Programs**, **Returns**, **Submixes**, or **Masters**. Each page has slight differences, described in each section.

The following controls and tabs are available for all of the mixers (or most of them, as indicated).

**To select a channel**, tap its corresponding pad on the touchscreen. Alternatively, use the field in the upper-left corner.

**To view more channels** (while viewing tracks or programs), use the **-/+** buttons at the top of the touchscreen.

The time counter in the upper-right corner shows the current playhead position. This is shown in most of the modes. See [General Features > Time Counter](#) to learn about this.

The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

### Levels

When the **Level** tab is selected, use the **data dial** or **-/+** buttons to adjust the velocity level or volume level of the currently selected track, program, return, submix, or master.

The level sliders and meters in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a large version of the level slider and meter.

### Panning

When the **Pan** tab is selected, use the **data dial** or **-/+** buttons to adjust the panning of the currently selected track, program, return, submix, or master.

The pan sliders in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a large version of a **pan knob**.

## Mute/Solo/Rec Arm

Tap this tab to cycle it through **Mute**, **Solo**, and **Rec Arm** functions.

When **Mute** is selected, mute tracks, programs, returns, submixes, or masters by doing any of the following:

- Turn or press the **center cursor** or **Enter**.
- Use the **-/+** buttons.
- Tap the **pad** in the touchscreen.
- Turn each of the **Q-Link knobs** to mute or unmute each of the pads.

When a track, program, return, submix, or master is muted, its **M** button will light **red**.

When **Solo** is selected, solo tracks, programs, returns, submixes, or masters by doing any of the following:

- Turn or press the **center cursor** or **Enter**.
- Use the **-/+** buttons.
- Tap the **pad** in the touchscreen.
- Turn each of the **Q-Link knobs** to solo or unsolo each of the pads.

When a track, program, return, submix, or master is soloed, its **S** button will light **red** while other tracks are muted with their **M** buttons lit **red**.

The **Solo** tab is available for tracks and programs only.

When **Rec Arm** is selected, record-enable audio tracks by doing any of the following:

- Turn or press the **center cursor** or **Enter**.
- Use the **-/+** buttons.
- Tap the **pad** in the touchscreen. Press and hold **Shift** while tapping a **pad** in the touchscreen to record-enable multiple tracks at once.
- Turn each of the **Q-Link knobs** to record-arm or disarm each of the pads.

The **Rec Arm** tab is available for audio tracks only.

## Send Levels (Audio Tracks, Programs, and Submixes only)

When the **Send** tab is selected, use the **data dial** or **-/+** buttons to adjust the send level of audio tracks, programs, or submixes.

The level sliders in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a large version of the level slider.

You can use up to four send channels. Tap **Send** to cycle through the four available slots for each.

**To learn how to use send effects**, please see [General Features > Effects > Send/Return Effects](#).

**Important:** When using send channels, make sure you have already loaded at least one effect to it using the return mixer. See [Returns](#) below to learn how to do this.

## Insert Effects (Audio Tracks, Programs, Returns, Submixes, and Masters only)

When the **Insert** tab is selected, use the **data dial** or **-/+** buttons to adjust the insert effect level of audio tracks, programs, returns, submixes, or masters.

The level sliders in each pad show a visual representation of the level. Double-tap a **pad** in the touchscreen to open a large version of the level slider.

You can select up to four insert effects for each audio track, program, return, submix, or master. Tap the **Insert** button to cycle through the four available slots for each.

To learn how to use insert effects, please see [General Features > Effects > Insert Effects](#).

## Routing (Audio Tracks, Programs, Returns, and Submixes only)

When the **Route** tab is selected, use the **data dial** or **-/+** buttons to select the output of the currently selected program, return, or submix.

## MIDI Tracks

The MIDI Track Mixer shows levels, panning, and mute states for all used tracks.

To view a specific setting on all tracks, tap **Level**, **Pan**, or **Mute** at the bottom of the touchscreen. Tap **Mute/Solo** to switch between them.

When a track is selected, you can view and adjust all of its settings in the left side of the touchscreen rather than using the tab buttons at the bottom.

When viewing the MIDI track channel strip:

**Note:** This is the same as the MIDI track channel strip in Main Mode.

The first field shows the current track (which you can change).

The second field shows the current program the track is using (which you can change to a program of the same type).

Tap **Solo** or **Mute** to solo or mute the track (respectively).

Adjust the **pan knob** or **velocity slider** to change the panning or velocity of the track.





## Audio Tracks

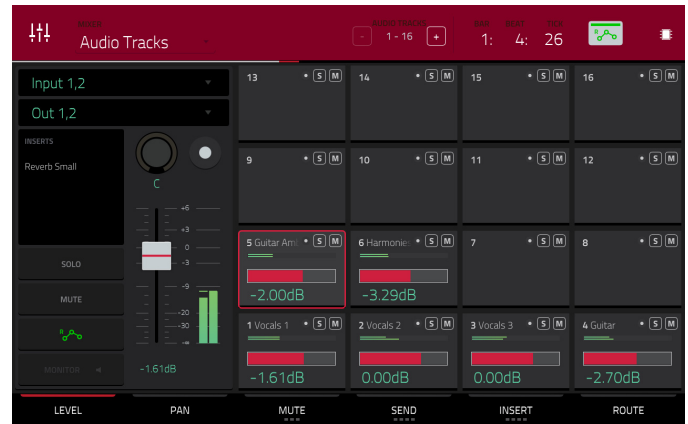
The Audio Track Mixer shows levels, mute/solo/record-arm states, send and insert effects, and routing for all used tracks.

To view a specific setting on all tracks, tap **Level**, **Pan**, **Mute/Solo/Rec Arm**, **Send**, **Insert**, or **Route** at the bottom of the touchscreen. Tap **Mute/Solo/Rec Arm** to cycle through them.

When a track is selected, you can view and adjust all of its settings in the left side of the touchscreen rather than using the tab buttons at the bottom.

When viewing the audio track channel strip:

**Note:** This is the same as the audio track channel strip in Main Mode.



The first field defines the input source of the external audio signal (**Input 1,2**, **Input 3,4**, or one of **Input 1–4**).

The second field shows where the track is routed (which you can change; **Out 1,2–7,8** in Standalone Mode, **Out 1,2–31,32** in Controller Mode).

The **Inserts** field shows any enabled or disabled effects for that audio track. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Solo** or **Mute** to solo or mute the track (respectively).

Tap the **Monitor** button to set how your audio track will be monitored. Tapping it will cycle through its three states:

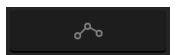
When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

When **off**, you will never hear any incoming audio.

Press **Read/Write** or tap the **automation button** to cycle through its three states:

When **off**, the audio track will ignore automation data. If you have already recorded or entered automation, this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while pressing or tapping the button.



**Important:** If you have already recorded automation and turn it off, the audio track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the audio track will read automation data but will not record any additional automation over it. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)



When set to **Write (W)**, the audio track can record automation. (If you have any Q-Link knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording.)



**Tip:** You can quickly set all programs and audio tracks to the same automation by tapping the global automation button in the upper-right corner of the touchscreen. See [General Features > Automation](#) to learn about this.

Adjust the **pan knob** or **level slider** to change the panning or level of the track.

Press **Rec Arm** or tap the **Record Arm** button to record-enable the track. When you begin audio recording, the audio signal will be recorded to this track.

**Tip:** You can select multiple tracks in the **Rec Arm** tab by pressing and holding **Shift** and tapping each **pad** in the touchscreen. You can also do this in the Track View by pressing and holding **Shift** while tapping the **Arm** button to each track.



## Programs

The Program Mixer shows levels, panning, mute states, send and insert effects, and routing for all programs.

To view a specific setting on all programs, tap **Level**, **Pan**, **Mute/Solo**, **Send**, **Insert**, or **Route** at the bottom of the touchscreen. Tap **Mute/Solo** to switch between them. Tap **Send** or **Insert** to cycle through the four available slots for each.

When a program is selected, you can view and adjust all of its settings in the left side of the touchscreen rather than using the tab buttons at the bottom.

When viewing the program channel strip:

**Note:** This is the same as the program channel strip in Main Mode.

The first field shows the current program number and name (which you can change).

The second field shows where the program is routed (which you can change).

The **Inserts** field shows any enabled or disabled effects for that program. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Solo** or **Mute** to solo or mute the program (respectively).

Tap the **program automation button** to change the program's automation. Tapping it will cycle through its three states:

When **off**, the program will ignore automation data. If you have already recorded or entered automation, tapping this will switch between **Read (R)** and **Write (W)** only, but you can override this and turn it off by pressing and holding **Shift** while tapping the button.

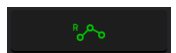
**Important:** If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the program will read automation data but will not record any additional automation over it. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)

When set to **Write (W)**, the program can record automation. (If you have any Q-Link knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording.)

**Tip:** You can quickly set all programs and audio tracks to the same automation by tapping the global automation button in the upper-right corner of the touchscreen. See [General Features > Automation](#) to learn about this.

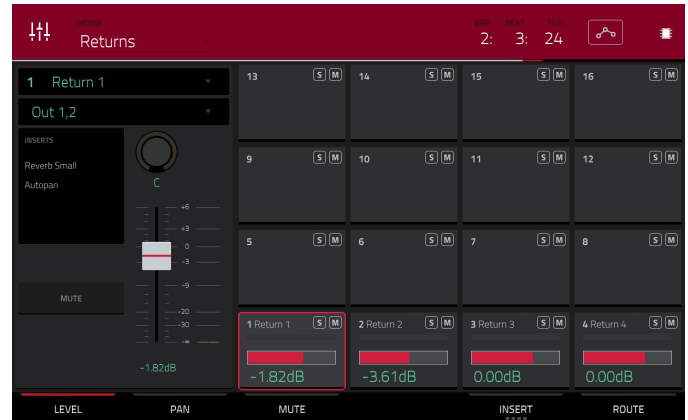
Adjust the **pan knob** or **level slider** to change the panning or level of the program.



## Returns

Pads, programs, and audio tracks can each be sent to up to four send channels. Their audio signals will be routed to the send channels at their designated send levels. After being processed by the effects on those channels, their signals are then sent back based on their return settings (levels, panning, etc.). This view displays the four return channels. The return mixer shows levels, panning, mute states, insert effects, and routing for all used tracks.

To view a specific setting on all returns, tap **Level**, **Pan**, **Mute**, **Insert**, or **Route** at the bottom of the touchscreen. You can tap **Insert** multiple times to cycle through the four available slots.



When a return is selected, you can view and adjust all of its settings in the left side of the touchscreen rather than using the tab buttons at the bottom.

When viewing the return channel strip:

The first field shows the current return number (which you can change).

The second field shows where the return is routed (which you can change).

The **Inserts** field shows any enabled or disabled effects for that return. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Mute** to mute the return.

Adjust the **pan knob** or **level slider** to change the panning or level of the return.

## Submixes

The Submixer shows levels, panning, mute states, send and insert effects, and routing for the eight available submixes.

**Important:** Submixes are available only while using MPC X in Controller Mode with the desktop version of the MPC software.

To view a specific setting on all submixes, tap **Level**, **Pan**, **Mute**, **Send**, **Insert**, or **Route** at the bottom of the touchscreen. You can tap **Send** or **Insert** multiple times to cycle through the four available slots for each.

When a return is selected, you can view and adjust all of its settings in the left side of the touchscreen rather than using the tab buttons at the bottom.

When viewing the submixer channel strip:

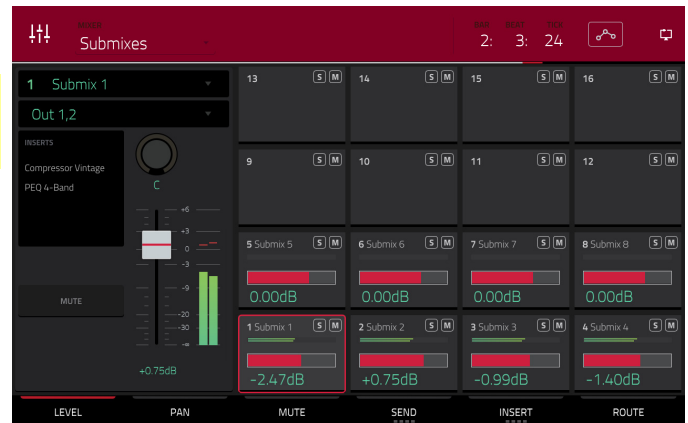
The first field shows the current submix (which you can change).

The second field shows where the submix is routed (which you can change).

The **Inserts** field shows any enabled or disabled effects for that submix. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Mute** to mute the submix.

Adjust the **pan knob** or **level slider** to change the panning or level of the submix.



## Masters

The Master Mixer shows levels, panning, mute states, and insert effects for all used stereo pairs of outputs (**Out 1,2–7,8** in Standalone Mode, **Out 1,2–31,32** in Controller Mode).

To view a specific setting on all outputs, tap **Level**, **Pan**, **Mute**, or **Insert** at the bottom of the touchscreen. You can tap **Insert** multiple times to cycle through the four available slots.

When viewing the master channel strip:

**Note:** This is the same as the master channel strip in Main Mode.

The first field shows the current master output (which you can change).

The **Inserts** field shows any enabled or disabled effects for that master output. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Tap **Mute** to mute that master output.

Adjust the **pan knob** or **level slider** to change the panning or level of the master output.



**Song Mode**



Song Mode lets you arrange sequences in a specific order and/or repetition to create songs. You can edit the structure of a song during playback for easy, on-the-fly composing.

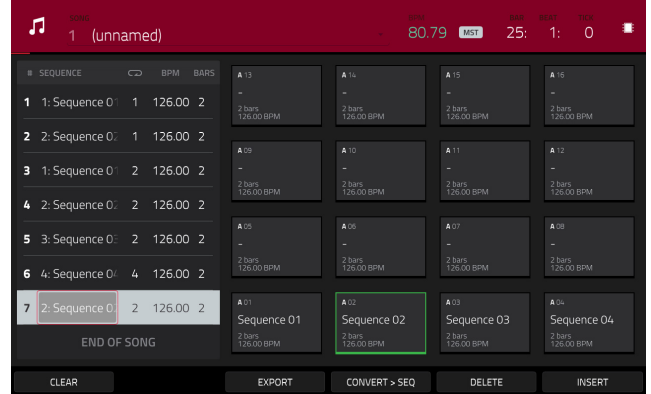
A project can contain up to 32 songs, each consisting of up to 999 “steps.” Each step can have an assigned sequence as well as the number of times that sequence will repeat.

To open **Song Mode**, do either of the following:

- Press **Shift+Next Seq/Song**.
- Press **Menu**, and then tap **Song Mode**.

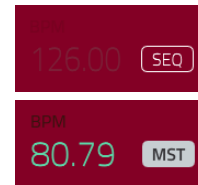
**Important:** If a sequence is currently playing, stop playback before entering Song Mode. You cannot enter Song Mode during playback.

Use the **Song** field to select the song you want to show.



Use the **BPM** field to adjust the tempo of the sequence.

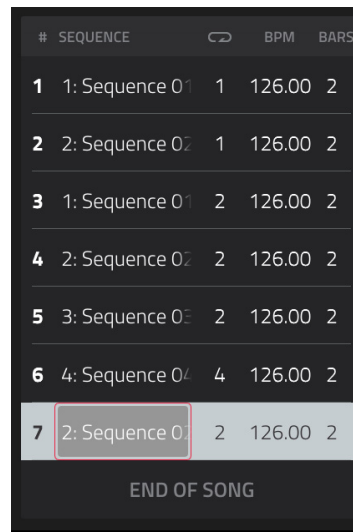
To set whether the sequence follows its own tempo (**Seq**) or a master tempo (**Mst**), tap the **Seq/Mst** button next to the BPM field. Alternatively, press **Shift+Tap/Master**.



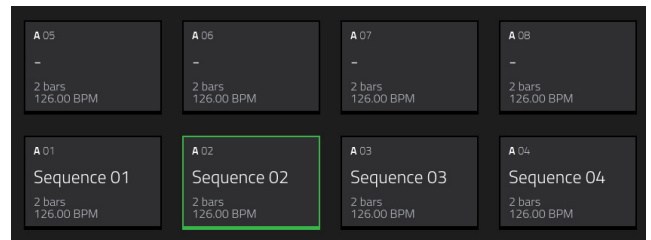
The sequence playlist on the left lists of the “steps” of a song.

Each step has (in columns, left to right):

- the step number (each song can contain up to 999 steps)
- a sequence number and name
- how many times the sequence plays (each step can play up to 999 times; set it to **Hold** [the lowest/minimum value] to set the sequence to repeat indefinitely until you stop playback)
- the tempo of the sequence
- the number of bars the step occupies (based on how many times it plays)



Each used sequence is assigned to a pad. Empty pads correspond to unused sequences. Use the **Pad Bank** buttons to access the sequences assigned to pads in other banks.

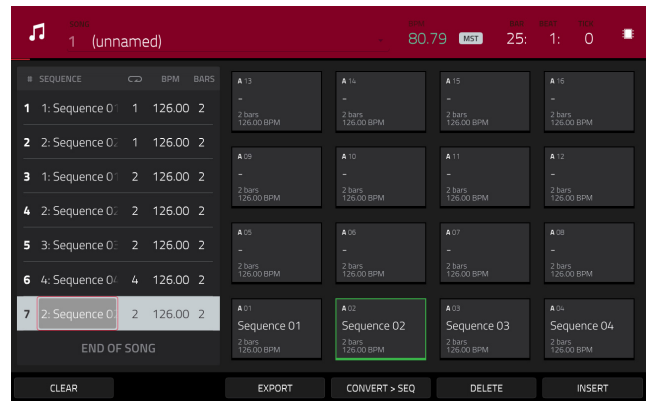


**To insert a step:**

1. Tap a **step** in the sequence playlist after which you want to insert a step.
2. Tap **Insert** in the lower-right corner of the touchscreen.

**To change a step's sequence:**

1. In the desired step, tap the **sequence name**.
2. Use the **data dial** or **-/+** buttons to select another sequence.

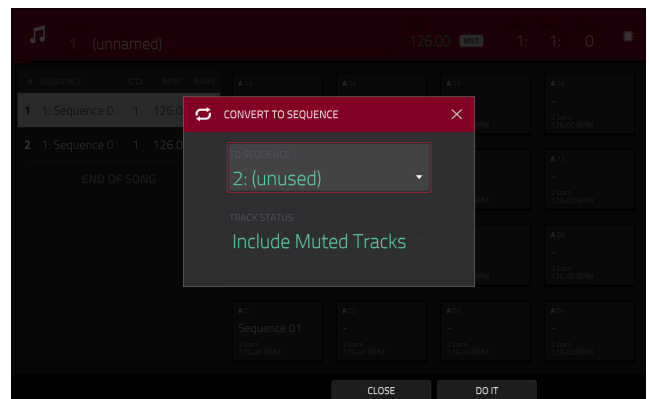


**To delete a step**, tap it, and then tap **Delete** in the lower-right corner of the touchscreen.

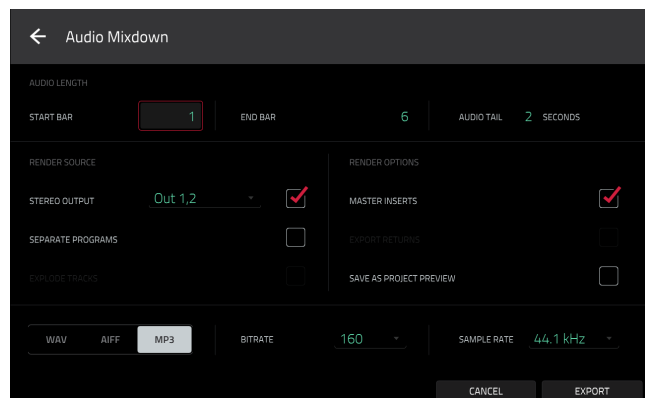
**To clear the entire sequence playlist** (delete all steps), tap **Clear**.

**To convert the current song to a single sequence:**

1. Tap **Convert > Seq** to open the **Convert to Sequence** window.
2. Use the **To Sequence** field to select which sequence you want the song to export to.
3. Use the **Track Status** field to select whether you want the song to **Ignore Muted Tracks** or **Include Muted Tracks** in the new sequence.
4. **To confirm your selections**, tap **Do It**.  
**To cancel the process**, tap **Close**.



**To render/export your song as an audio file**, tap **Export** to open the **Audio Mixdown** screen. See [General Features > Audio Mixdown](#) to learn how to use this screen to export your song.



## Browser



The Browser lets you navigate your MPC X's internal and external hard disks to load samples, sequences, songs, etc. Using filter buttons and user-definable folders, you can easily adapt it to your preferred workflow. You can also audition (preview) your samples before loading them.

**Important:** You can install an additional SATA drive in your MPC X, allowing for even more storage space. See [Appendix > SATA Drive Installation](#) to learn more about this.

**Important:** MPC X supports read and write capability for **exFAT**, **FAT32**, **NTFS**, and **EXT4** file systems as well as read-only capability for **HFS+** file systems. We recommend using an exFAT file system as it is the most robust one supported by both Windows and Mac OS X.

To show the Browser, do any of the following:

- Press **Browse**.
- Press **Menu** and then tap **Browser**.

To browse for files, tap **Browse** in the lower-left corner.

To view the project's sample pool and pads, tap **Sample Assign** in the lower-left corner.

When the **Browse** tab is selected, you can do any of the following:

To browse your files by location, tap **Places** on the left side of the touchscreen. **Internal** is the MPC X's internal drive. **MPC Documents** is a shortcut to the **MPC Documents** folder on the internal drive. If you have storage devices connected to MPC X's USB ports or SD card slot, they will appear in this column, as well.

To browse your files by content, tap **Content** and then tap the type of file: **Drums**, **Instruments**, **Clips**, **Samples**, **Demos**, or **My Files** (see [below](#) to learn about these content buttons).

To move up one folder level, tap the **folder/L** icon in the upper-left corner.

To move through a list, swipe up or down, turn the **data dial** or use the **-/+** buttons.

To select a file or folder, tap it once.

To enter a folder, double-tap it or tap **Open** in the lower-right corner. Alternatively, press the **center cursor** or **Enter** to enter a selected folder. You can also tap one of the **folder buttons (1-5)** in the upper-right corner to jump immediately to those pre-assigned file paths (see [below](#) to learn how to assign these file paths).

To load a selected file, double-tap it, tap **Load**, or press the **center cursor** or **Enter**. If the file is a sample, it will be loaded to the project's sample pool. If the file is a project, it will be loaded in its entirety (you will be asked if you want to close your current project).

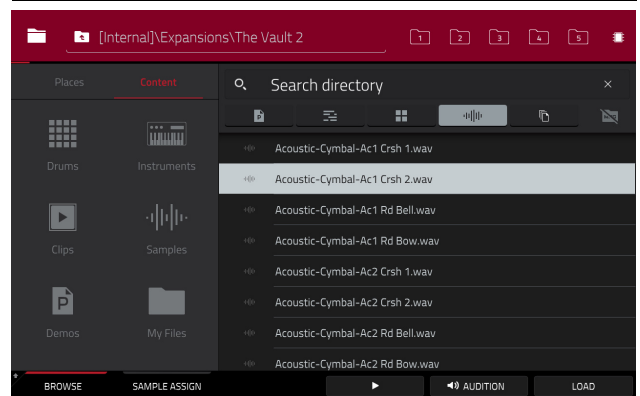
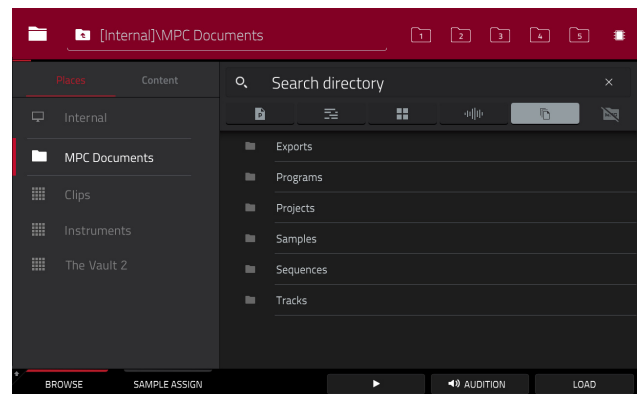
To load all files in a selected folder, press and hold **Shift** and then tap **Load All** in the lower-right corner.

To delete a selected file or folder, press and hold **Shift** and then tap **Delete File** at the bottom of the touchscreen.

To preview a selected sound, tap and hold **Play (▶)** at the bottom of the touchscreen.

To enable or disable the audition function and set its volume level, tap **Audition** at the bottom of the touchscreen. In the screen that appears, tap **Auto** to enable or disable it, and tap and drag the **level slider** up or down to set the volume level. Tap **Audition** once more to hide the window.

To show the information for the current drive, press and hold **Shift** and then tap **Drive Info** at the bottom of the touchscreen. The drive's information will appear in a new window. Tap **OK** to return to the previous screen.



To get the most efficient use of the Browser, set the file paths to your favorite drive locations first. There are five **folder buttons** labeled **1–5** in the upper-right corner. You can set these to be shortcuts to five locations on MPC X's internal drive and/or any connected USB drives or SD cards, giving you quick access to your files.



**To assign the current location to a folder button**, press and hold **Shift**, and then tap one of the **folder buttons (1–5)**. Now, when you tap that folder button again, the Browser will show that folder's content immediately.

Use the six filter buttons to show only specific types of files in the list below.



**To show project files only**, tap the **P/page icon**.

**To show sequence files only**, tap the **bars icon**.

**To show program files only**, tap the **four-squares icon**.

**To show sample files only**, tap the **waveform icon**.

**To show all file types**, tap the **three-pages icon**.

**To show or hide MPC project folders**, tap the **MPC folder icon**.

Use the six **Content** buttons to show specific locations in MPC X's internal drive and filter them automatically by file type:

**Drums:** Tap this button to enter the **Expansions/The Vault 2** folder on the internal drive, viewing **program** files only.

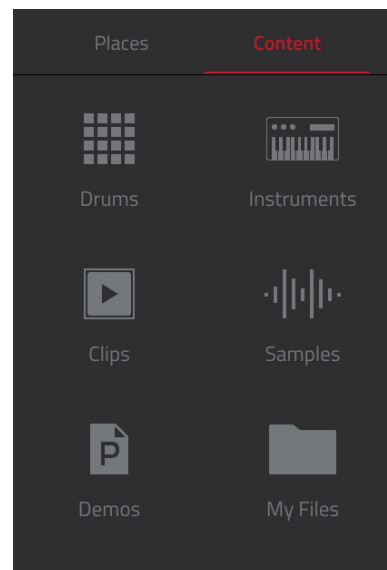
**Instruments:** Tap this button to enter the **Expansions/Instruments** folder on the internal drive, viewing **program** files only.

**Clips:** Tap this button to enter the **Expansions/Clips** folder on the internal drive, viewing **program** files only.

**Samples:** Tap this button to enter the **Expansions/The Vault 2** folder on the internal drive, viewing **sample** files only.

**Demos:** Tap this button to enter the **Demos** folder on the internal drive, viewing **project** files only.

**My Files:** Tap this button to enter the **MPC Documents** folder, viewing **all** files.



When the **Sample Assign** tab is selected, you can do any of the following:

**To select a program in the project**, double-tap the **Program** field at the top of the touchscreen. In the list that appears, tap the desired program. Alternatively, tap the **Program** field and then use the **data dial** or the **-/+** buttons to select a location.

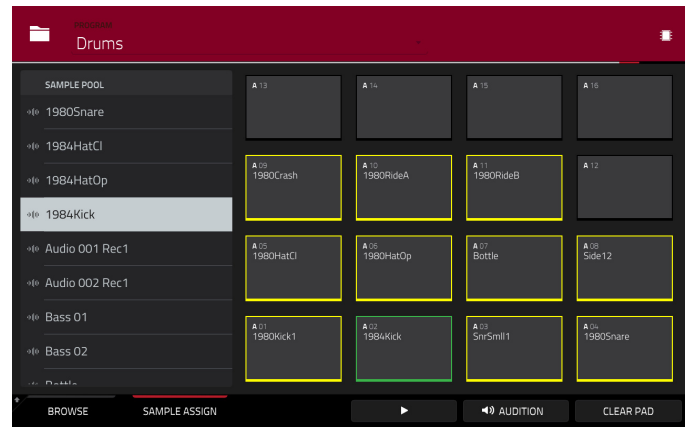
**To move through the sample pool**, swipe up or down, turn the **data dial**, or use the **-/+** buttons.

**To preview a selected sound**, tap and hold **Play** (▶) at the bottom of the touchscreen.

**To enable or disable the audition function and set its volume level**, tap **Audition** at the bottom of the touchscreen. In the screen that appears, tap **Auto** to enable or disable it, and tap and drag the **level slider** up or down to set the volume level. Tap **Audition** once more to hide the window.

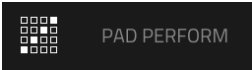
**To assign a sample to a pad**, press it or tap it in the touchscreen so it lights **green**. Then, in the **Sample Pool** list, tap the desired sample. Alternatively, use the **data dial** or **-/+** buttons to select a sample, and press the **center cursor** or **Enter** to assign it.

**To clear a sample from a pad**, press it or tap it in the touchscreen so it lights **green**. Then, tap **Clear Pad** at the bottom of the touchscreen.





## Pad Perform Mode

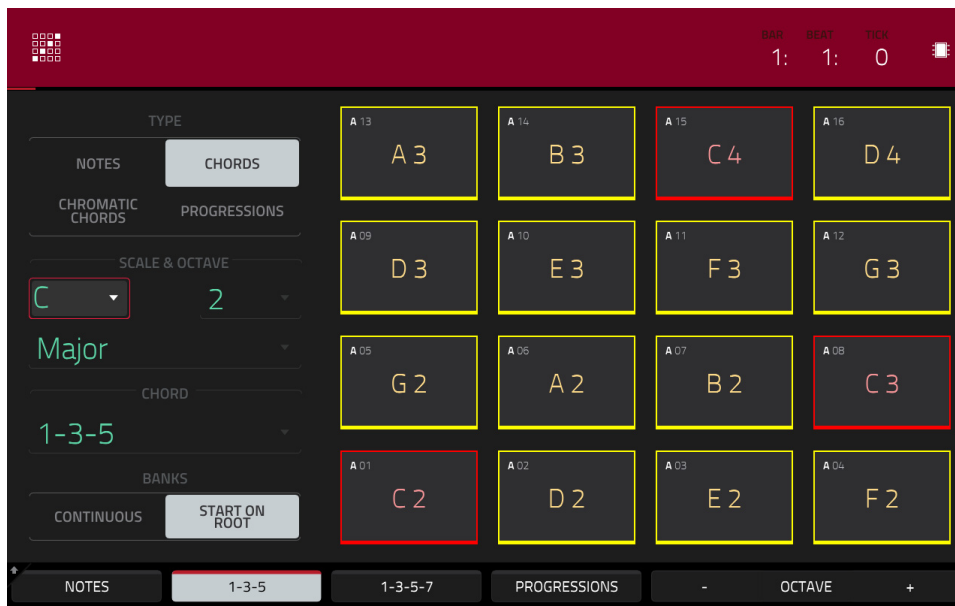


Pad Perform Mode lets you assign musical scales/modes, chords, or progressions to the pads for more creative performance.

To enter Pad Perform Mode, do either of the following while using a keygroup program, MIDI program, plugin program, or CV program:

- Press **Pad Perform**.
- Press **Menu**, and then tap **Pad Perform**.

Although you can enter Pad Perform Mode while using a drum program or clip program, it does not work with these programs.



The touchscreen will show the current pad bank's mapping of notes or chords.

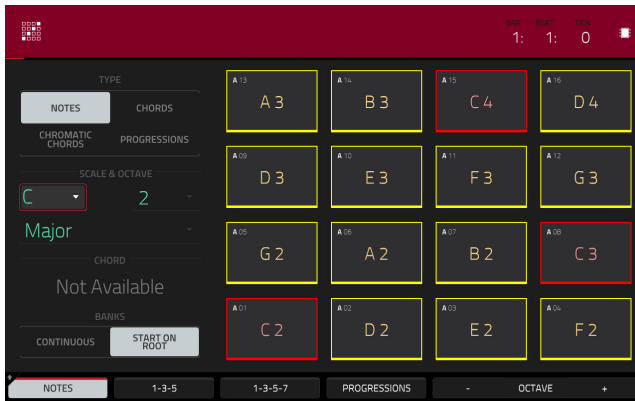
Use the **Type** selector to determine what will be mapped over the pads:

**Notes:** Each pad is assigned a note, ascending by one scale degree with each pad.

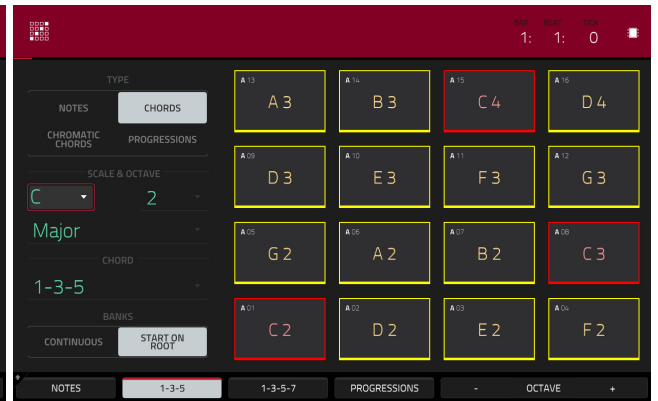
**Chords:** Each pad is assigned a chord, the root note ascending by one scale degree with each pad. All available chords will play in the key determined by the **Scale**.

**Chromatic Chords:** Each pad is assigned a chord, the root note ascending by one scale degree with each pad. You can play any chord type regardless of the key determined by the **Scale**. Essentially, this is like the Chords setting but with more options to play chords out of the set key.

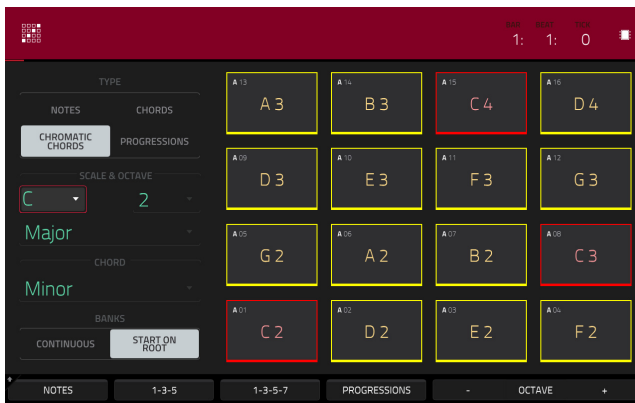
**Progressions:** Each pad is assigned a chord in a chord progression. You can play the pads in (or out of) order to construct songs quickly. The available chords are determined by the **Chord** field.



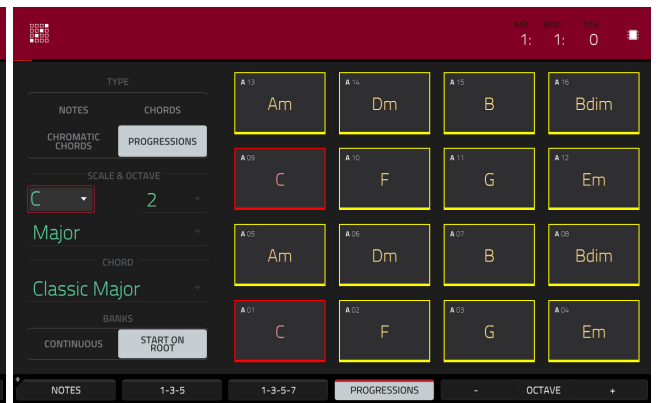
Notes in Pad Perform Mode.



Chords in Pad Perform Mode.



Chromatic Chords in Pad Perform Mode.



Progressions in Pad Perform Mode.

Use the **Scale & Octave** fields to determine the root note and the scale type.

**Root Note** (pitch and register): This is the starting point of the scale. The available notes are all chromatic notes across the range of the pads. The pad that's assigned the root note will be lit differently (and highlighted in the touchscreen) to indicate where the scale starts in each octave.

**Scale Type:** This is the scale or mode based on the root note (this is disabled when **Type** is set to **Progressions**). The available scales are:

- |                  |                 |            |
|------------------|-----------------|------------|
| Major            | Gypsy           | Dorian     |
| Minor (melodic)  | Hungarian Gypsy | Phrygian   |
| Pentatonic Major | Persian         | Lydian     |
| Pentatonic Minor | Major Bebop     | Mixolydian |
| Blues (minor)    | Whole Tone      | Aeolian    |
| Flamenco         | Chromatic       | Locrian    |

Use the **Chord** fields to determine what chord type will play when pressing a pad. The resulting chord will use those scale degrees based off of the pad's root note. You can use this only when the **Type** is set to **Chords** or **Chromatic Chords**.

When set to **Chords**, the available chords are:

1-3-5 (major/minor)	1-3-5-7 (major7/minor7)
1-4-5 (sus4)	1-3-5-7b (dominant)
1-2-5 (sus2)	

When set to **Chromatic Chords**, the available chords are:

Major	Major7	Augmented
Minor	Minor7	Diminished
Sus2	Major9	
Sus4	Minor9	

Use the **Banks** selector to determine how the notes are mapped across the pad banks.

**Start on Root: Pad 01** will always be the root note of the scale in every pad bank.

**Continuous: Pad 01** of one bank is always one scale degree higher than **Pad 16** of the previous bank.

You can use the buttons at the bottom of the touchscreen to quickly select different Types and Chords:

Tap **Notes** to automatically set the **Type** to **Notes**.

Tap **1-3-5** to automatically set the **Type** to **Chords** and set the **Chord** to **1-3-5** (major/minor).

Tap **1-3-5-7** to automatically set the **Type** to **Chords** and set the **Chord** to **1-3-5-7** (major7/minor7).

Tap **Progressions** to automatically set the **Type** to **Progressions**.

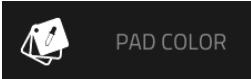
Tap **Octave -/+** to shift the pad assignments down or up by an octave.

Press **Shift+1-4-5** to automatically set the **Type** to **Chords** and set the **Chord** to **1-4-5** (sus4).

Press **Shift+1-3-5-7b** to automatically set the **Type** to **Chords** and set the **Chord** to **1-3-5-7b** (dominant).

Press **Shift+Note -/+** to shift the pad assignments down or up by a semitone, essentially raising or lowering the **Root Note** field by a half-step.

## Pad Color Mode



PAD COLOR

Pad Color Mode lets you assign specific colors to your pads in each program.

To enter **Pad Color Mode**, make sure you have first selected a track that uses the desired program, and then press **Menu**, and tap **Pad Color**.

**Important:** If you are already in Pad Color Mode and want to assign pad colors for another program, exit Pad Color Mode first, and then select a track that uses the desired program in another mode.

Use the field in the upper-left corner to set how the pad lights will display:

**Off:** The pads will be unlit whether you are playing them or not.

**Classic Velocity:** The pads will be unlit while you are not playing them. When you press them, they will light with colors according to the velocity: red indicates a high velocity, yellow indicates a low velocity.

**Fixed:** The pads will be lit with their assigned colors whether you are playing them or not.

**Off->Velocity:** The pads will be unlit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.

**Dim->Velocity:** The pads will be dimly lit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.

**Bright->Velocity:** The pads will be brightly lit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.

Use the **Empty Pads** field in the upper-left corner to set how empty pads will display:

**Empty pads off:** Pads without any sounds will remain off.

**Empty pads dim:** Pads without any sounds will remain more dimly lit than pads with sounds assigned.

**Empty pads normal:** Pads without any sounds will appear the same as pads with sounds assigned.

Use the **Single Pad/All Pads** select to determine whether you are setting the color for a **Single Pad** or **All Pads**.

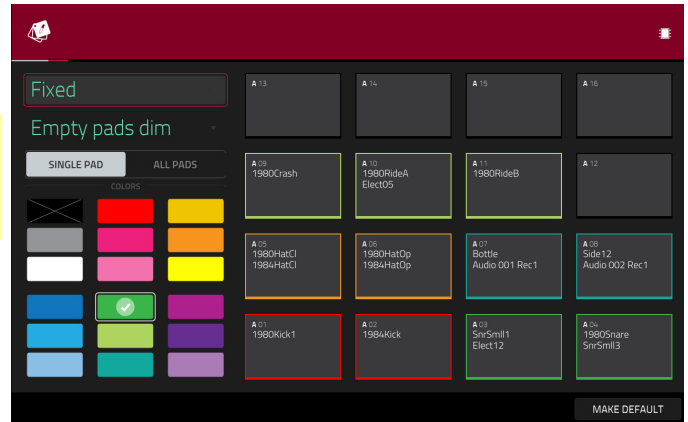
**Tip:** To quickly assign that color to all pads in the program, press and hold **Shift** while tapping a color button.

Use the **color buttons** to select which color you are assigning.

**Tip:** To select the color button corresponding a specific pad's color, press and hold **Shift**, and then press the pad or tap it on the touchscreen.

Press a **pad** on MPC X or tap it on the touchscreen to assign the selected color to it.

To make the current pad color settings the defaults for all programs on the same type (e.g., drum programs, keygroup programs, etc.), tap **Make Default**. In the window that appears, tap **Do It** to confirm your choice or **Cancel** to cancel.



## Q-Link Edit Mode

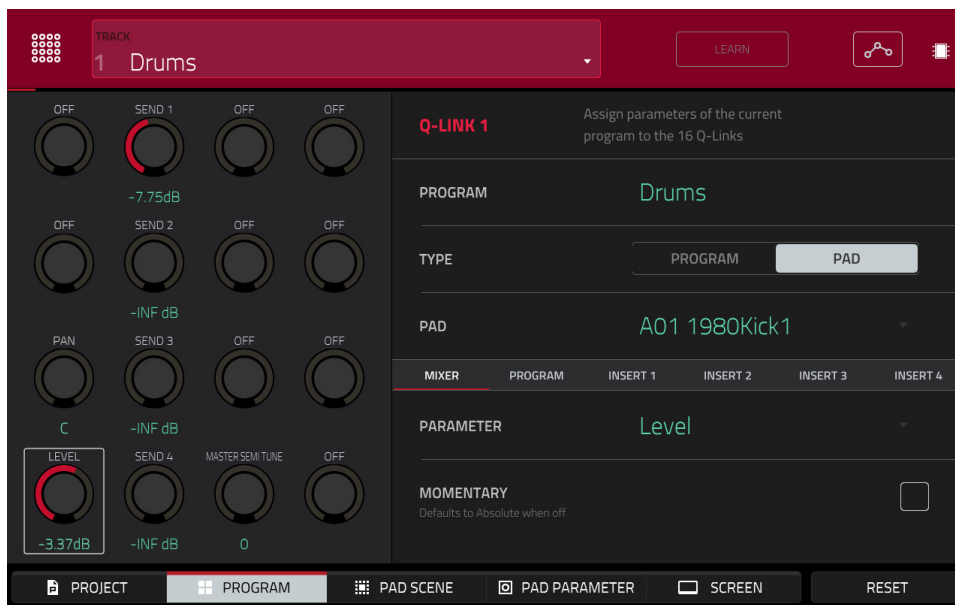


Q-LINK EDIT

Q-Link Edit Mode lets you determine what the Q-Link knobs control in other modes. This is helpful when you want to use the Q-Link knobs to control parameters that might not be shown in the current mode—or parameters that are shown across different modes.

To enter Q-Link Edit Mode, do any of the following:

- Press **Shift+Screen Control/Edit**.
- Press **Menu**, and then tap **Q-Link Edit**.
- Press and hold one of the five **Q-Link** buttons above the **Q-Link knobs**, and then tap **Q-Link Edit** at the bottom of the window that appears.



To select an edit mode for the Q-Link knobs, tap one of the five buttons at the bottom of the touchscreen or press one of the five Q-Link buttons above the Q-Link knobs (**Project**, **Program**, **Pad Scene**, **Pad Param**, or **Screen Control/Edit**):

**Project:** In this edit mode, the Q-Link knobs can control 16 parameters within the current project overall. See the following [Project](#) section to learn about this specific Q-Link Edit Mode.

**Program:** In this edit mode, the Q-Link knobs can control 16 program or audio track parameters. See the following [Program](#) section to learn about this specific Q-Link Edit Mode.

**Pad Scene** (for drum programs only): In this edit mode, the Q-Link knobs can control 16 parameters for the currently selected pad. See the following [Pad Scene](#) section to learn about this specific Q-Link Edit Mode.

**Pad Parameters:** In this edit mode, the 16 Q-Link knobs correspond to the 16 pads, each one controlling the same parameter for each pad. This is useful if you need to adjust the same parameter on multiple pads at once rather than having to select and edit each pad individually. See the following [Pad Parameters](#) section to learn about this specific Q-Link Edit Mode.

**Screen:** In this edit mode, the Q-Link knobs will control a parameter or group of parameters in your currently selected mode (e.g., Main Mode, Sample Edit Mode, etc.).

Use the **Track** field to select a track that uses the desired program (and therefore pad/pads). The contents of the screen below will vary based on (1) the type of program each track uses and (2) the Q-Link Edit Mode you selected.

Tap the **Learn** button to turn Learn Mode on or off. When **on**, adjusting a control in the MPC software window will immediately assign it to the currently selected Q-Link knob.

This button is not available while in **Screen** Q-Link Edit Mode where the Q-Link knobs are unassignable.

#### To assign a function to a Q-Link knob in Learn Mode:

1. Tap **Learn** so the button is lit. (This will stop playback. Resuming playback will exit Learn Mode.)
2. Touch or turn the desired **Q-Link knob**.
3. In the MPC software on your computer, click and drag the **slider** or **knob** you want to assign to the Q-Link knob. The Q-Link knob will be able to control that parameter immediately.

**To assign functions to other Q-Link knobs**, repeat Steps 2–3.

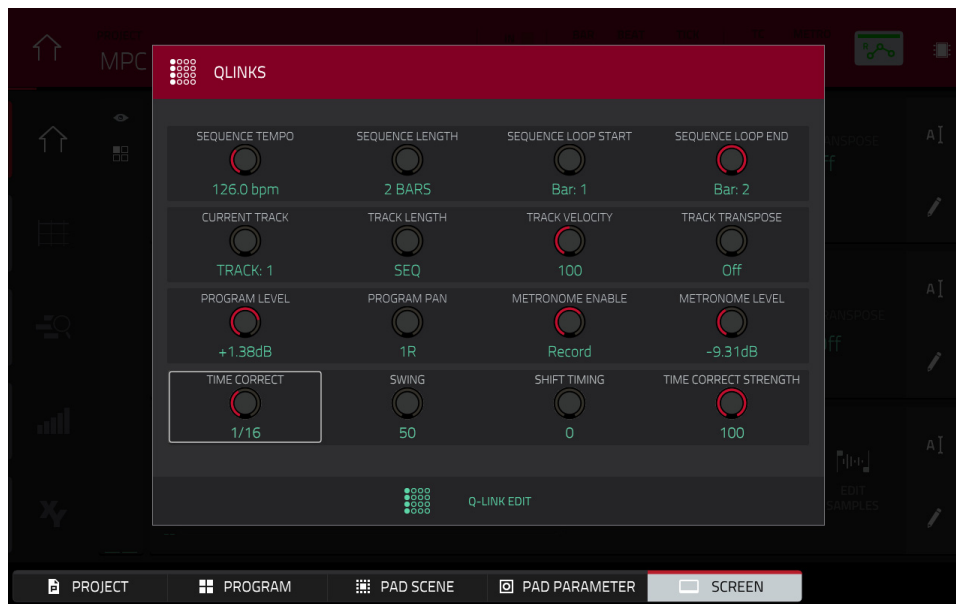
**To exit Learn Mode**, tap **Learn** (or resume playback).

The automation button indicates the global automation state. This is shown in several modes. See [General Features > Automation](#) to learn about this.

At any time, in any mode, you can show the **QLinks** window over the touchscreen's current contents. These are the same parameters and settings as what is shown in Q-Link Edit Mode.

**To show the QLinks window**, press and hold any of the **Q-Link** buttons: **Project**, **Program**, **Pad Scene**, **Pad Param**, or **Screen Control/Edit**.

**To close the QLinks window**, release that **Q-Link** button.



While the **QLinks** window is shown:

**To adjust the settings of the selected knobs**, turn the corresponding **Q-Link knobs** on MPC X.

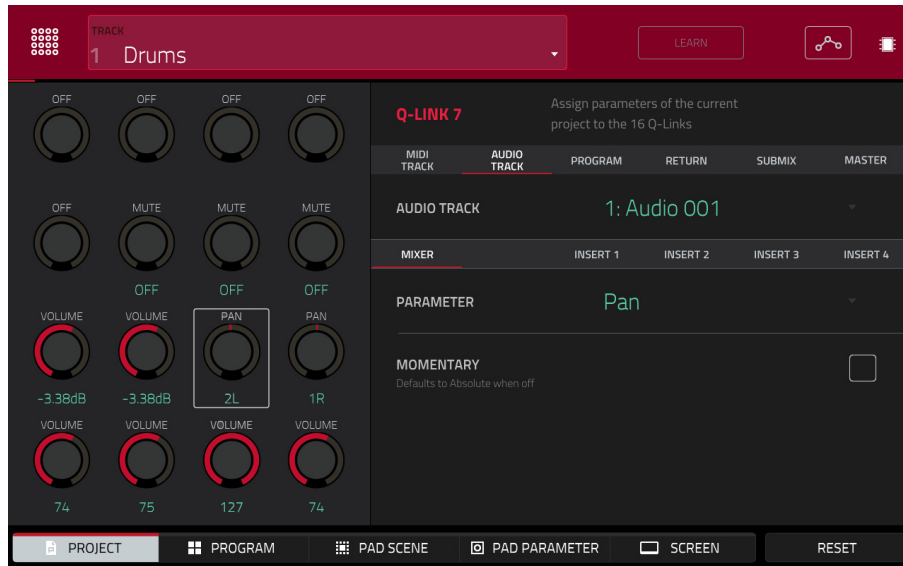
**To select an edit mode for the Q-Link knobs**, tap one of the five buttons at the bottom of the touchscreen or press one of the five **Q-Link** buttons above the **Q-Link knobs**: **Project**, **Program**, **Pad Scene**, **Pad Parameter**, or **Screen**.

**To turn Learn Mode on or off**, tap **Learn**. (This button is not available while in **Screen** Q-Link Edit Mode where the Q-Link knobs are unassignable.)

**To enter Q-Link Edit Mode immediately** (regardless of the current mode), tap **Q-Link Edit** at the bottom of the window.

## Project

In the **Project** Q-Link Edit Mode, the Q-Link knobs control 16 parameters within the current project.



Next to the top row of Q-Link knobs in the touchscreen, tap one of these tabs to select the type of parameters you want to control with the Q-Link knobs:

- MIDI Track:** MIDI track parameters. Use the **MIDI Track** field to select one of the MIDI tracks in your project.
- Audio Track:** audio track parameters. Use the **Audio Track** field to select one of the audio tracks in your project.
- Program:** program parameters. Use the **Program** field to select one of the programs in your project.
- Return:** return parameters. Use the **Return** field to select one of **Returns 1–4**.
- Submix:** submix parameters. Use the **Submix** field to select one of **Submixes 1–8**.
- Master:** master parameters. Use the **Master** field to select one of the output pairs: **Outputs 1/2–7/8** in Standalone Mode or **Outputs 1/2–31/32** in Controller Mode.

Next to the second row of Q-Link knobs in the touchscreen, tap one of these tabs to select the type of parameters you want to control with the Q-Link knobs:

- Mixer:** general mixer parameters
- Program** (in the **Program** tab if a drum program or clip program is selected): program parameters
- Insert 1–4** (not available in the **MIDI Track** tab or **Program** tab if a MIDI program is selected): parameters for its program insert effects

If the **Program** tab is selected, use the **Type** selector to determine whether the Q-Link knobs will control the parameters of the entire program (**Program**) or for a single pad (**Pad**).

- To select a program,** use the **Program** field next to the top row of Q-Link knobs in the touchscreen.
- To select a pad** (if **Type** is set to **Pad**), use the **Pad** field.

Use the **Parameter** field to select the parameter you want to control with the currently selected Q-Link knob.

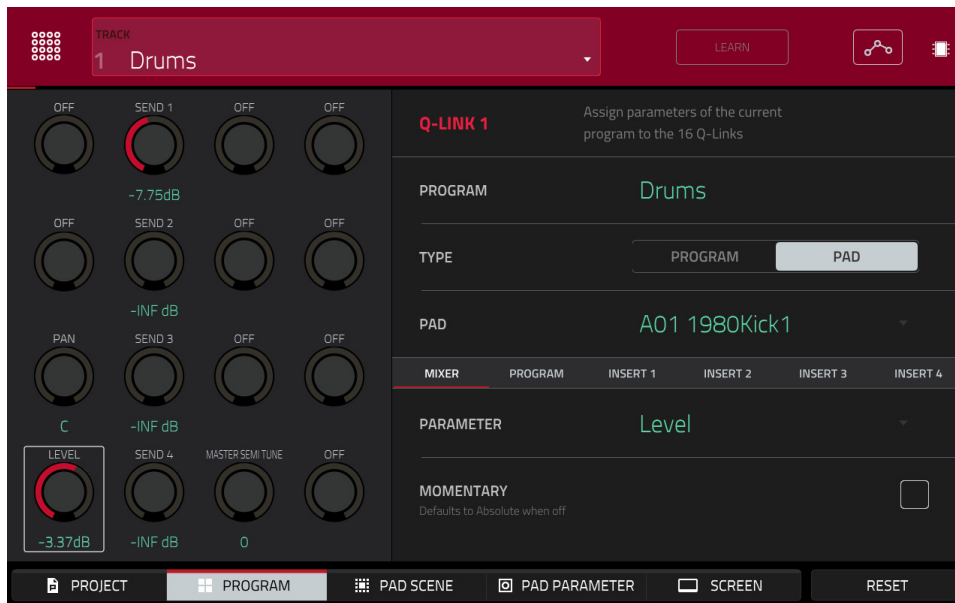
Tap the **Momentary** checkbox to turn momentary behavior on or off.

When **on**, moving the Q-Link knob will adjust its parameter, but the parameter will immediately return to its original position (when you turned Momentary on) when you release the Q-Link knob.

When **off**, moving the Q-Link knob will adjust its parameter, and the parameter will remain at its new setting when you release the Q-Link knob.

## Program

In the **Program** Q-Link Edit Mode, the Q-Link knobs control 16 parameters within the currently selected program or audio track.



Next to the top row of Q-Link knobs in the touchscreen, tap one of these tabs to select the type of parameters you want to control with the Q-Link knobs:

**Mixer:** general mixer parameters

**Program:** program parameters

**Insert 1–4:** parameters for its program insert effects

Use the **Type** selector to determine whether the Q-Link knobs will control the parameters of the entire program (**Program**) or for a single pad (**Pad**).

**To select a program**, use the **Track** field at the top of the touchscreen to select a track that uses it. The program name will appear in the **Program** field next to the top row of Q-Link knobs in the touchscreen.

**To select a pad** (if **Type** is set to **Pad**), use the **Pad** field.

Use the **Parameter** field to select the parameter you want to control with the Q-Link knobs.

Tap the **Momentary** checkbox to turn momentary behavior on or off.

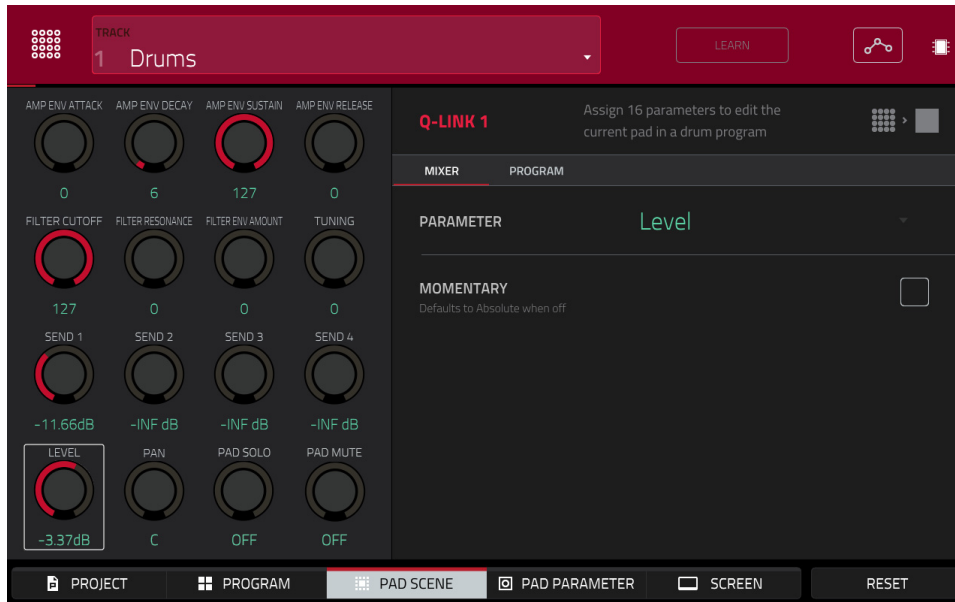
When **on**, moving the Q-Link knob will adjust its parameter, but the parameter will immediately return to its original position (when you turned Momentary on) when you release the Q-Link knob.

When **off**, moving the Q-Link knob will adjust its parameter, and the parameter will remain at its new setting when you release the Q-Link knob.



## Pad Scene

In the **Pad Scene** Q-Link Edit Mode, the Q-Link knobs control your favorite 16 parameters for the currently selected pad. You can select another pad simply by pressing it, allowing you to adjust the same 16 parameters for that new pad. (These 16 parameter assignments are automatically saved with other user settings. Any project you load will use these assignments.)



To select a pad, press it.

Next to the top row of Q-Link knobs in the touchscreen, tap one of these tabs to select the type of parameters you want to control with the Q-Link knobs:

**Mixer:** general mixer parameters

**Program:** pad parameters (i.e., parameters used in Program Edit Mode)

Use the **Parameter** field to select the parameter you want to control with the Q-Link knobs.

Tap the **Momentary** checkbox to turn momentary behavior on or off.

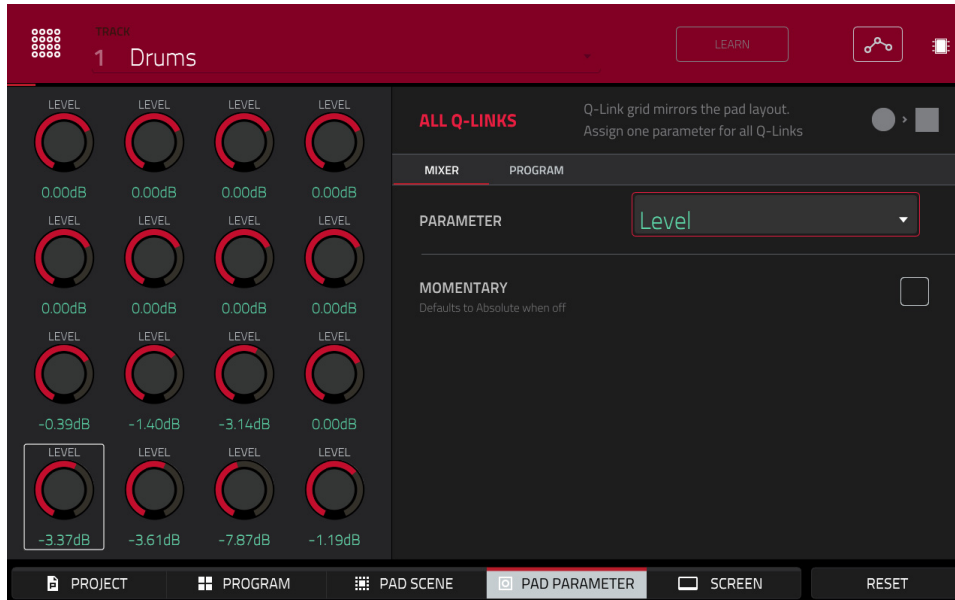
When **on**, moving the Q-Link knob will adjust its parameter, but the parameter will immediately return to its original position (when you turned Momentary on) when you release the Q-Link knob.

When **off**, moving the Q-Link knob will adjust its parameter, and the parameter will remain at its new setting when you release the Q-Link knob.

## Pad Parameters

In the **Pad Parameters** Q-Link Edit Mode, the Q-Link knobs control the same pad parameter for each of the 16 pads in the current pad bank.

For example, if the **Parameter** is set to **Level**, the 16 Q-Link knobs will adjust the 16 independent **Level** settings for each pad in the current pad bank. You could then set the **Parameter** to **Pan** and use the Q-Link knobs to adjust the panning of all 16 pads.



Next to the top row of Q-Link knobs in the touchscreen, tap one of these tabs to select the type of parameter you want to control with the Q-Link knobs:

**Mixer:** general mixer parameters

**Program:** pad parameters (i.e., parameters used in Program Edit Mode)

Use the **Parameter** field to select the parameter you want to control with the Q-Link knobs.

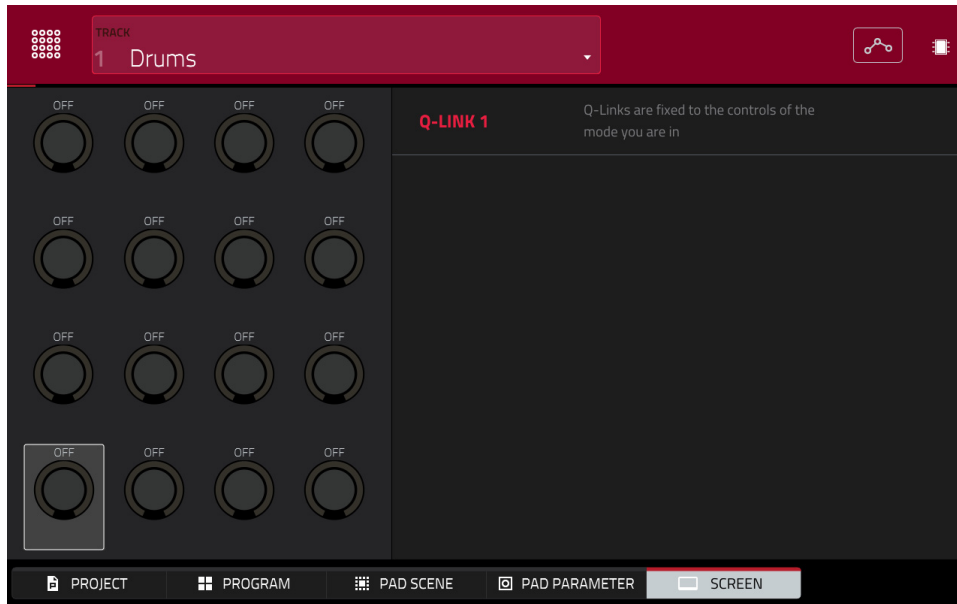
Tap the **Momentary** checkbox to turn momentary behavior on or off.

When **on**, moving the Q-Link knob will adjust its parameter, but the parameter will immediately return to its original position (when you turned Momentary on) when you release the Q-Link knob.

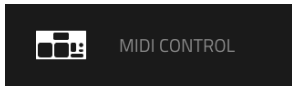
When **off**, moving the Q-Link knob will adjust its parameter, and the parameter will remain at its new setting when you release the Q-Link knob.

## Screen

In the **Screen** Q-Link Edit Mode, the Q-Link knobs will control only the parameter or group of parameters in your currently selected mode (e.g., Main Mode, Sample Edit Mode, etc.).



**MIDI Control Mode**



You can use MIDI Control Mode on your MPC X to customize what MIDI messages are sent from certain controls on your hardware. This custom “control map” will then work whenever you are in MIDI Control Mode. The edits you make in MIDI Control Mode will be retained with the current MPC project

In Standalone Mode, this feature enables you to use MPC X to control external MIDI devices connected to its MIDI out.

In Controller Mode, this is helpful when using MPC as a plugin: you can use MIDI Control Mode to use your MPC X to control your host software, and then switch back to any other mode to control the MPC plugin.

**To enter MIDI Control Mode, press Menu, and then tap MIDI Control.**

**Important:**

**In Standalone Mode:** Make sure your MPC X is using the correct MIDI output. You can set this in the **Preferences** (see [General Features > Menu > Preferences > Hardware](#)).

**In Controller Mode:** In your host software, make sure your MPC X is selected as a MIDI controller device.

**To select a control to edit, do any of the following:**

- Press or turn it. In the lower-left corner, tap the **Hardware** tab to edit a **pad, button, or Q-Link knob**, or tap the **XY** tab to edit the **XY pad**.
- Tap the **Control** field in the upper-left corner, and then turn the **data dial** to select one.
- Double-tap the **Control** field, and then tap a control name in the menu that appears.

**Note:** The **Control** field menu will show many more hardware controls than are actually available on your MPC X. This is because the list includes all possible controls from all current MPC models (MPC Renaissance, MPC Studio, MPC Touch, etc.). You can edit only the controls that are described in this chapter.

In the touchscreen, use the following fields and selectors to set each control’s parameters to your preference. The available parameters depend on its type: a **pad**, or **button**, a **Q-Link knob**, or each axis of the **XY pad**. When you have set all of the parameters as desired, you can select another control or enter another mode.

The software window will also display a graphical interface resembling your MPC X. Editable controls show their current MIDI message. Pads and Q-Link knobs show their current MIDI channels.



## Pads

These are the MIDI parameters you can edit for each **pad**:

**Control:** This is the hardware control you are currently editing (**Pad 1–Pad 16**).

**Bank:** This is the pad bank the pad belongs to. If you check the **Set All** box, the pad's messages and parameters will be identical across all eight banks.

**Set All:** When this box is checked, the pad's messages and parameters will be identical across all eight banks. When this box is unchecked, the pad's messages and parameters will apply to the current pad only.

**Light LED:** This determines how the pad's LEDs will behave.

When set to **Never**, the LEDs will always be off.

When set to **MIDI Input**, the LEDs will light up when the software receives a MIDI message that matches the pad.

When set to **Local**, the LEDs will light up when you press the pad and/or MIDI input is received.

**MIDI Channel:** This determines which MIDI channel (**1–16**) the pad will use to send its message to the software.

**Note:** This is the MIDI note number the pad will send to the software when you press it (**0–127** or **C-2** to **G8**).

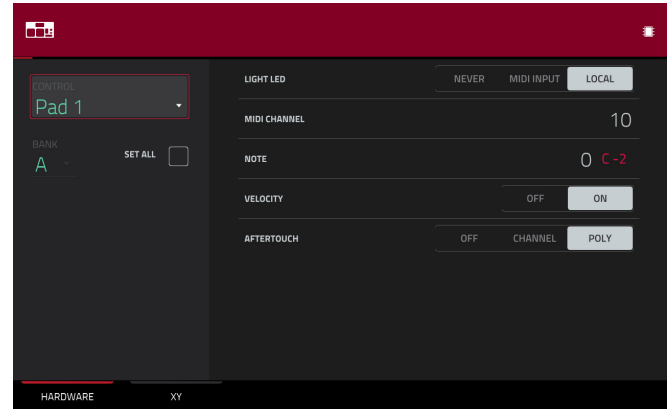
**Velocity:** This determines whether the pad will be velocity-sensitive (**On**) or not (**Off**). When set to **Off**, pressing the pad will send a note at full-level (**127**) always.

**Aftertouch:** This determines how the pad's aftertouch (pressure applied to the pad after the initial press) behaves.

**Off:** The pad will not send any aftertouch messages.

**Channel:** If you press multiple pads that have this setting, the aftertouch messages they send will be identical.

**Poly:** If you press multiple pads, the aftertouch message each pad sends will be independent from the others.



## Buttons

These are the MIDI parameters you can edit for each button. You can edit the **Erase**, **Tap Tempo**, **Undo/Redo**, or **Copy/Delete** buttons:

**Control:** This is the hardware control you are currently editing (**Erase**, **Tap Tempo**, **Undo**, or **Copy**).

**Light LED:** This determines how the button's LED (or multiple LEDs) will behave.

When set to **Never**, the LEDs will always be off.

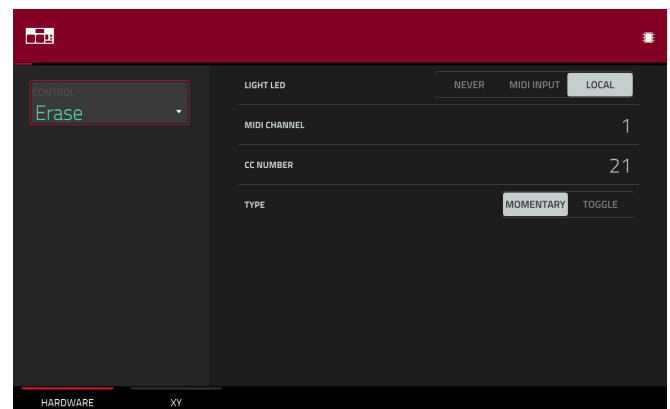
When set to **MIDI Input**, the LEDs will light up when the software receives a MIDI message that matches the button.

When set to **Local**, the LEDs will light up when you press the button and/or MIDI input is received.

**MIDI Channel:** This determines which MIDI channel (**1–16**) the button will use to send its message to the software.

**CC Number:** This determines what MIDI Control Change number the button will send to the software.

**Type:** This determines whether the button will behave as a **Momentary** switch or **Toggle** (latching) switch.



## Q-Link Knobs

These are the MIDI parameters you can edit for each **Q-Link knob**:

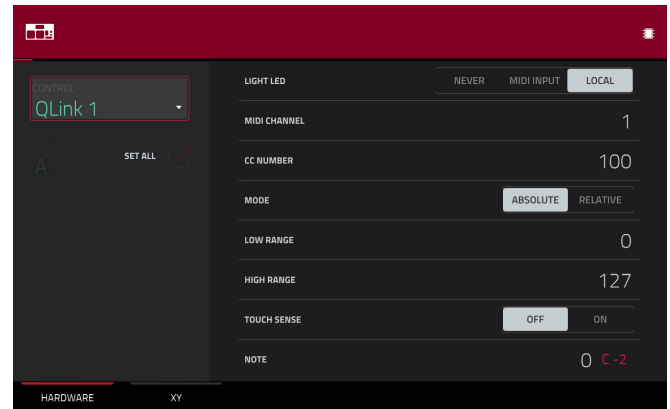
**Control:** This is the hardware control you are currently editing (**QLink 1-4**).

**Light LED:** Although you can edit this parameter, it does not actually have a function on MPC X.

When set to **Never**, the LEDs will always be off.

When set to **MIDI Input**, the LEDs will light up when the software receives a MIDI message that matches the Q-Link knob.

When set to **Local**, the LEDs will light up when you touch or turn the Q-Link knob and/or MIDI input is received.



**MIDI Channel:** This determines which MIDI channel (**1-16**) the Q-Link knob will use to send its message to the software.

**CC Number:** This determines what MIDI Control Change number the Q-Link knob will send to the software.

**Mode:** This determines how the Q-Link knob will control its parameter.

**Absolute:** The Q-Link knob's current position determines its parameter's value; moving it may cause its parameter to "snap" to a new position if you're using it to control different parameters in different modes.

**Relative:** Moving the Q-Link knob will increase or decrease its parameter regardless of its physical position.

**Low Range:** This is the Q-Link knob's lowest possible value (**0-127**).

**High Range:** This is the Q-Link knob's highest possible value (**0-127**).

**Touch Sense:** This activates or deactivates the Q-Link knob's touch-capacitive circuitry.

**On:** You can touch the Q-Link knob to send a Note On message to the software (this is how your MPC X normally works).

**Off:** The Q-Link knob will not send any Note On messages; it will only send CC messages when you turn it.

**Note:** This is the MIDI note number the Q-Link knob will send to the software when you touch it (**0-127** or **C-2** to **G8**). **Touch Sense** must be set to **On** for this to work.

## XY Pad

These are the MIDI parameters you can edit for each axis of the **XY pad**:

**Control:** This is the axis you are currently editing (**XYFX X-Axis** or **XYFX Y-Axis**). This field will be hidden if you tapped the **XY** tab to show the XY pad's parameters. You can tap the **Hardware** tab to show this field.

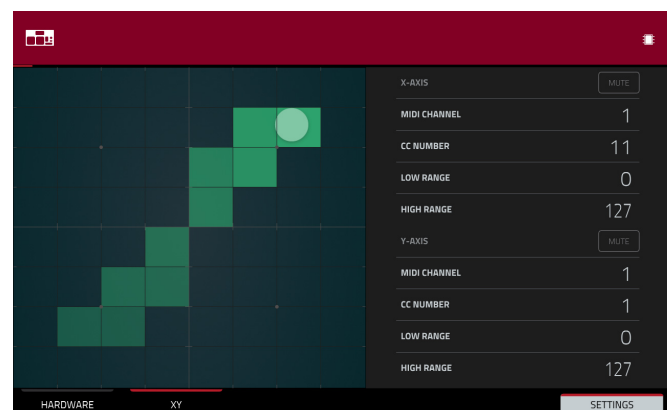
**Mute:** This button determines whether the axis is muted or not. When muted, its MIDI output is disabled. You must be viewing the **Settings** to do this.

**MIDI Channel:** This determines which MIDI channel (**1-16**) the axis will use to send its message to the software.

**CC Number:** This determines what MIDI Control Change number the axis will send to the software.

**Low Range:** This is the axis's lowest possible value (**0-127**).

**High Range:** This is the axis's highest possible value (**0-127**).



## Appendix

### Effects & Parameters

This chapter lists the available effects. To learn more about how effects work in MPC X, please see [General Features > Effects](#).

**Note:** Some of these effects have a “sync” version (e.g., **Flanger Sync**, **Autopan Sync**, etc.) whose rates will be affected by the current tempo. While viewing the rate of these effects, a “.” next to the time division indicates a triplet-based rate.

### Reverbs

Options: [Reverb Small](#), [Reverb Medium](#), [Reverb Large](#), [Reverb Large 2](#), [Reverb In Gate](#), [Reverb Out Gate](#)

#### Reverb Small

This is a spatial effect, designed to emulate a small room.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	50
Lo-Cut	0–100	15
Hi-Cut	0–100	10

#### Reverb Medium

This is a spatial effect, designed to emulate a medium room.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	50
Lo-Cut	0–100	15
Hi-Cut	0–100	10

## Reverb Large

This is a spatial effect, designed to emulate the sound of a large hall.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10

## Reverb Large 2

This is a less CPU-intensive spatial effect, emulating the sound of a large hall.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10

## Reverb In Gate

This is a hall reverb with an additional control. The reverb effect is cut off when the input drops below the level set in the **Gate In** parameter.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10
Gate In	0–100	0



## Reverb Out Gate

This is a hall reverb that has an additional control. The reverb effect is cut off when the output drops below the level set in the **Gate Out** parameter.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10
Gate Out	0–100	0

## Delays

Delays the original signal for a specified period of time and plays it back over an adjustable period of time.

**Options:** [Delay Mono](#), [Delay Mono Sync](#), [Delay Stereo](#), [Delay Sync \(Stereo\)](#), [Delay LP](#), [Delay HP](#), [Delay Analog](#), [Delay Analog Sync](#), [Delay Tape Sync](#), [Delay Ping Pong](#), [Delay Multi-Tap](#)

### Delay Mono

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

### Delay Mono Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	25
Damping	0–100	100

### Delay Stereo

Stereo Delay operates similarly to Mono Delay but in true stereo.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

**Delay Sync (Stereo)**

Stereo Delay operates similarly to Mono Delay but in true stereo.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Damping	0–100	100

**Delay LP**

LP Delay is identical to the Mono Delay, but it uses a resonant low-pass filter in the delay line.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	500
Feedback	0–100	50
Cutoff	0–100	50
Resonance	0–100	20

**Delay HP**

HP Delay is identical to the Mono Delay, but it uses a resonant high-pass filter in the delay line.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	50
Cutoff	0–100	33
Resonance	0–100	33

**Delay Analog**

Analog Delay is similar to the Mono Delay, except that it's designed to emulate an analog "Bucket Brigade"-style delay. This delay has a unique character to it that gives a warmer sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25

**Delay Analog Sync**

Analog Delay is similar to Mono Delay, except that it's designed to emulate an analog "Bucket Brigade"-style delay. This delay has a unique character to it that gives a warmer sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Ramp	0–100	50

### Delay Tape Sync

Tape Delay emulates a delay system using an analog tape loop and a series of tape heads to produce an echo effect. This delay type yields a very distinct echo sound often heard in reggae and dub-style music.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Ramp	0–100	50
Head 1	0–100	100
Head 2	0–100	0
Head 3	0–100	0
Head 4	0–100	0
Tone	0–100	50
Spread	0–100	50
Wow & Flutter	0–100	50

### Delay Ping Pong

This stereo delay allows you to set different delay times for its left and right repeats.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time, Left	2–2000 ms	100
Time, Right	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

### Delay Multi-Tap

This delay is a mono delay which has three delay generators with independently adjustable delay times and stereo position.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time 1	2–2000 ms	100
Time 2	2–2000 ms	100
Time 3	2–2000 ms	100
Feedback	0–100	25
Pan 1	0–100	50
Pan 2	0–100	50
Pan 3	0–100	50
Damping	0–100	100
Gain 1	0–100	25
Gain 2	0–100	25
Gain 3	0–100	25

## Flangers

A flanger is a modulated delay to emulate the sound created when running two analog tape machines in parallel with a slight time disalignment. Slow **Rate** settings can produce a “whooshing” jet engine sound, while faster rates result in more of a “warble.”

Options: [Flanger](#), [Flanger Sync](#)

### Flanger

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10
Feedback	-100 – 100	0
Delay	0–100	20
Width	0–100	80

### Flanger Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	8 bars – 1/16 triplets	1/4
Feedback	-100 – 100	0
Delay	0–100	20
Width	0–100	80

## Chorus

A chorus effect uses an LFO to modulate the pitch and a delay of the input signal, which are then added to the dry signal. In small amounts, this creates the illusion of multiple voices playing at once. Turn up the **Feedback** and **Depth** for more pronounced “shimmering” and “watery” sounds.

Options: [Chorus 2-Voice](#), [Chorus 4-Voice](#)

### Chorus 2-Voice

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Delay	0–100	20
Amount	0–100	80
Width	0–100	80
Feedback	0–100	50
Rate	0–100	10

### Chorus 4-Voice

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Delay	0–100	20
Amount	0–100	80
Width	0–100	80
Feedback	0–100	50
Rate	0–100	10

## Autopans

This effect uses an LFO to move the incoming signal back and forth across the stereo field, creating a rotary effect.

Options: [Autopan](#), [Autopan Sync](#)

### Autopan

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

### Autopan Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	8 bars – 1/32	1/4

## Tremolos

This effect uses an LFO to increase and decrease the volume of the signal. Depending on the LFO shape, this can produce a smooth wave effect (sine wave) or a stuttering “on-off” effect (square wave).

Options: [Tremolo](#), [Tremolo Sync](#)

### Tremolo

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10
Sine to Square	0–100 (sine–square)	0

### Tremolo Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	1 bar – 1/16 triplets	1/4
Sine to Square	0–100 (sine–square)	0

## Phasers

The phaser is a classic effect, created by multiple ganged all-pass filters to create “notches,” or sharp spikes, in the frequency spectrum. The frequencies of these all-pass filters are usually modulated by an LFO to create a sweeping sound.

Options: [Phaser 1](#), [Phaser 2](#), [Phaser Sync](#)

### Phaser 1

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

### Phaser 2

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

### Phaser Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	1 bar – 1/16 triplets	1/4

## HP (High-Pass) Filters

Options: [HP Filter](#), [HP Filter Sweep](#), [HP Filter Sync](#), [HP Shelving Filter](#)

### HP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0

### HP Filter Sweep

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	80
Low Frequency	0–100	50
High Frequency	0–100	100
Resonance	0–100	33
Rate	0–100	10

**HP Filter Sync**

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	50
Rate	8 bars – 1/32	1/4

**HP Shelving Filter**

This filter differs from the standard filter type, as it attenuates all frequencies after the cutoff point equally.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0
Gain	-18.0 – 18.0 dB	0.0

**LP (Low-Pass) Filters**

Options: [LP Filter](#), [LP Filter Sweep](#), [LP Filter Sync](#), [LP Shelving Filter](#)

**LP Filter**

This effect is a static filter without modulation.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0

**LP Filter Sweep**

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	80
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	33
Rate	0–100	10

**LP Filter Sync**

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	50
Rate	8 bars – 1/32	1/4

**LP Shelving Filter**

This filter differs from the standard filter type, as it attenuates all frequencies after the cutoff point equally.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0
Gain	-18.0 – 18.0 dB	0.0

## Parametric EQs

Options: *PEQ 2-Band*, *2-Shelf*, *PEQ 4-Band*

### PEQ 2-Band, 2-Shelf

This effect is a combination of one two-band parametric equalizer and two shelving filters.

Parameter	Value Range	Default Value
Low Frequency	22–1000 Hz	220
Frequency 1	82–3900 Hz	820
Frequency 2	220–10000 Hz	2200
High Frequency	560–19999 Hz	5600
Q1	0–100	0
Q2	0–100	0
Low Gain	-18.0 – 18.0 dB	0.0
Gain 1	-18.0 – 18.0 dB	0.0
Gain 2	-18.0 – 18.0 dB	0.0
High Gain	-18.0 – 18.0 dB	0.0

### PEQ 4-Band

This effect is a powerful four-band parametric equalizer with four independent EQ ranges.

Parameter	Value Range	Default Value
Low Frequency	22–1000 Hz	220
Frequency 1	82–3900 Hz	820
Frequency 2	220–10000 Hz	2200
High Frequency	560–19999 Hz	5600
Q1	0–100	5
Q2	0–100	5
Q3	0–100	5
Q4	0–100	5
Gain 1	-18.0 – 18.0 dB	0.0
Gain 2	-18.0 – 18.0 dB	0.0
Gain 3	-18.0 – 18.0 dB	0.0
Gain 4	-18.0 – 18.0 dB	0.0



## Distortions

Options: [Distortion Amp](#), [Distortion Fuzz](#), [Distortion Grimey](#), [Distortion Overdrive](#), [Distortion Custom](#)

### Distortion Amp

This effect is designed to reproduce the sound of a tube amplifier at high volumes.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Tone	0–100	50
Dynamics	0–100	50
Output	0–100	50

### Distortion Fuzz

This popular effect uses hard clipping of the audio signal, which, at extreme settings, can turn a standard waveform into a square wave, producing a “razor” effect.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Output	0–100	50
Low	0–100	50
Low-Mid	0–100	50
High-Mid	0–100	50
High	0–100	50

### Distortion Grimey

This is a unique distortion effect that distorts a frequency range in a selectable band.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Grime	0–100	50
Center	0–100	50
Width	0–100	50
Resonance	0–100	50
Output	0–100	50

### Distortion Overdrive

This distortion is designed to sound like a mildly distorting amplifier at medium volumes. It is the smoothest distortion type available.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Tone	0–100	50
Output	0–100	50

## Distortion Custom

This effect is a highly customized distortion, capable of a wide range of useable sounds.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
+Soft	5–75	2
+Clip	5–50	25
–Soft	5–75	2
–Clip	5–50	25
Low	-18.0 – 18.0 dB	0.0
Mid	-18.0 – 18.0 dB	0.0
High	-18.0 – 18.0 dB	0.0
Output	-18.0 – 18.0 dB	50

## Compressors

A compressor is an effect that changes the dynamic range of a signal by automatically reducing its gain.

Options: [Compressor Master](#), [Compressor Opto](#), [Compressor VCA](#), [Compressor Vintage](#)

### Compressor Master

This is the most transparent compressor, able to perform substantial volume adjustments without artifacts.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Oldskool	Off, On	Off
Output	-6 – 24 dB	0

### Compressor Opto

The Opto Compressor is modeled after a vintage compressor type using an optical circuit to control the volume reduction of the input signal. These compressors are usually associated with soft and unobtrusive attack and release characteristics.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

## Compressor VCA

This compressor is more modern-sounding, with a slightly more transparent sound. A VCA Compressor tends to have quicker attack and release times than an Opto Compressor.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

## Compressor Vintage

This compressor has a sound similar to classic tube compressors, with their gentle yet pumping response and a dash of tube saturation.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

## Bit Reducers

Options: [Decimator](#), [Resampler](#)

### Decimator

Decimator down-samples the incoming signal by removing bits from the digital signal. The difference between decimation and resampling is that Decimator does not use any filtering to mask or correct digital artifacts. The result is an effect ranging from mild to almost completely pure digital distortion, depending on the setting and the source material.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Decimate	0–100	0
Bit Reducer	4–32	32

### Resampler

Resampler is similar to Decimator in that it removes bits from an incoming signal. The difference is that Resampler applies a complex suite of filters and anti-aliasing to attempt to retain the original sound quality. This is a method used by popular vintage samplers and sampling drum machines from the 1980s. Resampler can be used to achieve a “dirty” sound on drum loops, without the harshness of distortion.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	0
Decimate	0–100	0

**Other**

Options: *Auto Wah*, *Frequency Shifter*, *Transient Shaper*

**Auto Wah**

This effect is a low-pass filter modulated by an envelope that yields a classic funky “wah-wah”- like sound. The envelope is triggered by the incoming signal’s amplitude. The amount of the envelope on the cutoff frequency is user-definable.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Resonance	0–100	75
Attack	0–100	30
Release	0–100	30
Center	0–100	50
Sensitivity	0–100	50

**Frequency Shifter**

A frequency shifter changes the frequencies of an input signal by a fixed amount and alters the relationship of the original harmonics. This can produce a chorus-like effect as well as very crazy artificial timbres.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Frequency	-1000 – 1000	0
Asynchrony	0–1000	0
A Pan	0–100	0
B Pan	0–100	100
A Gain	0–100	75
B Gain	0–100	75

**Transient Shaper**

A transient shaper can be used to enhance or soften the Attack and Release phases of audio material.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Attack	0–100	50
Release	0–100	50
Output	0–100	50

## Glossary

This glossary briefly defines and explains many of the technical terms used throughout this manual.

- Aftertouch** The majority of contemporary keyboards are capable of generating aftertouch messages. On this type of keyboard, when you press harder on a key you are already holding down, a MIDI aftertouch message is generated. This feature makes sounds even more expressive (e.g., through vibrato).
- Aliasing** Aliasing is an audible side effect arising in digital systems as soon as a signal contains harmonics higher than half the sampling frequency.
- Amount** Describes to which extent a modulation source influences a given parameter.
- Amplifier** An amplifier is a component that influences the volume level of a sound via a control signal. It can be modulated by a control signal (e.g., generated by an *envelope* or an *LFO*).
- Attack** An *envelope* parameter. This term describes the ascent rate of a time-relevant process (e.g., an envelope from its starting point to the point where it reaches its highest value). The attack phase is initiated immediately after a trigger signal is received (e.g., after you play a note on a trigger pad or a keyboard).
- Bit Rate** Bit rate (also known as **word length**), is the number of bits used to store the level information of each single sample slice within a whole sample. The higher the bit rate, the more precise the information about a sample (i.e., its dynamics' resolution). Normal audio CDs are 16-bit. MPC X supports full 24-bit resolution.
- Bounce** When you “bounce” a sequence, track, or program, you are rendering that part of your project as an audio file (as opposed to a MIDI file). MPC X lets you bounce sequences, tracks, or programs as **samples** (saved to your project's sample pool) or as full **audio tracks** (saved to your project's sample pool **and** added directly to the current sequence).
- Bouncing a **track** will render that track after it is sent through its program. Bouncing a **program** will render all tracks that use that program after they are sent through it. Bouncing a **sequence** will render all tracks in that sequence after they are sent through their respective programs.
- Clipping** Clipping is a sort of distortion that occurs when a signal exceeds the maximum value that can be handled by a signal processing system it is fed into. The curve of a clipped signal is dependent on the system where the clipping occurs. In the analog domain, clipping effectively limits the signal to a given maximum level. In the digital domain, clipping is similar to a numerical overflow, resulting in negative polarity of the signal's portions exceeding the maximum level.
- Control Change** MIDI messages enable you to manipulate the behavior of a sound generator to a significant degree. This message essentially consists of two components:  
(Controllers)
- The controller number, which defines the parameter to be influenced. It can range from **0** to **127**.
  - The controller value, which determines the extent of the modification.
- Controllers can be used for effects such as slowly swelling vibrato, changing the stereo panning position and influencing filter frequency.
- Cutoff** The cutoff frequency is a significant factor for a *filter*. A low-pass filter for example dampens the portion of the signal that lies above this frequency. Frequencies below this value are allowed to pass through without being processed.

- CV** stands for **control voltage**, an analog method of sending control messages to external synthesizers, drum machines, etc. CV messages are typically used in conjunction with **Gate** messages (CV messages determine the pitch of notes while Gate messages determine note activation and length). CV messages are sent from the CV out ports of your MPC X and to the CV in ports of your external MIDI device.
- Please note that each external MIDI device uses a specific control voltage range, which determines how many volts are used in each octave (e.g., **1V/oct**). Be mindful of this when setting it up with the MPC software and/or controller hardware—mismatched voltage ranges can produce unusual/undesirable “re-scaling” of the octaves.
- Decay** Decay describes the descent rate of an **envelope** once the attack phase has reached its maximum and the envelope drops to the level defined by the sustain value.
- Envelope** An envelope is used to modulate a sound-shaping component within a given time. For instance, an envelope that modulates the cutoff frequency of a filter opens and closes this filter over a period of time. An envelope is started via a trigger, usually a MIDI note.
- The classic **ADSR** envelope consists of four individually variable phases: **attack**, **decay**, **sustain**, and **release**. Attack, decay and release are time or slope values, while sustain is an adjustable level. Once an incoming trigger is received, the envelope runs through the attack and decay phases until it reaches the programmed sustain level. This level remains constant until the trigger is terminated. The envelope then initiates the release phase until it reaches the minimum value.
- You can see and read about the envelopes used in the MPC software in [Operation > Modes > Program Edit Mode > Anatomy of an Envelope](#).
- Filter** A filter is a component that allows some of a signal’s frequencies to pass through it and dampens other frequencies. The most important aspect of a filter is the filter cutoff frequency. Filters generally come in four categories: **low-pass**, **high-pass**, **band-pass**, and **band-stop**. These are the available filters in the MPC X:
- A **low-pass** filter (the most common type) dampens all frequencies above the cutoff frequency.
  - A **high-pass** filter in turn dampens the frequencies below the cutoff.
  - A **band-pass** filter allows only those frequencies around the cutoff frequency to pass. All others are dampened.
  - A **band-stop** filter does the opposite of a band-pass: it dampens only the frequencies around the cutoff frequency.
  - A **band-boost** filter boosts the frequencies around the cutoff frequency, similar to what a band on an equalizer would do. All other frequencies pass through normally.
- The number of **poles** in a filter’s “slope” determines how extreme or subtle the effect of the filter will be. Filters with one or two poles produce a more subtle sound while filters with six or eight poles are much more pronounced.
- In the MPC X, the **Model** filters are analog-style emulations of famous vintage synth filters. **Model1** is a four-pole filter that distorts at high input levels. **Model2** uses a mellow resonance with a “fattening” distortion in the lower frequencies. **Model3** can produce howling, piercing resonances and extreme sub frequencies—watch your speakers!
- In the MPC X, the **Vocal** filters are formant filters that emulate the human voice. **Vocal1** produces “ah” and “ooh” vowel sounds. **Vocal2** uses three bands to produce “oh” and “ee” vowel sounds. **Vocal3** uses five bands to emulate an idealized model of the vocal tract.
- In the MPC X, **MPC3000 LPF** is a dynamic, resonant low-pass filter (12 dB/oct) that was used on the original MPC3000, released in 1994.
- Please also see the entry for [Resonance](#), an essential characteristic of a filter’s sound.
- Gate** **Gate** messages are analog messages sent to external synthesizers, drum machines, etc. Gate messages are typically used in conjunction with **CV** messages (CV messages determine the pitch of notes while Gate messages determine note activation and length). Gate messages are sent from the CV out ports of your MPC X and to the CV/Gate in ports of your external MIDI device.

- LFO** **LFO** is an acronym for **low-frequency oscillator**. The LFO generates a periodic oscillation at a low frequency and features variable waveshapes. Similar to an envelope, an LFO can be used to modulate a sound-shaping component.
- MIDI** **MIDI** stands for **musical instrument digital interface**. Developed in the early 1980s, MIDI enables interaction between various types of electronic music instruments from different manufacturers. At the time a communications standard for heterogeneous devices did not exist, so MIDI was a significant advance. It made it possible to link various devices with one another through simple, standardized connectors.
- Essentially, this is how MIDI works: One sender is connected to one or several receivers. For instance, if you want to use a computer to play a MIDI synthesizer, the computer is the sender and the synthesizer acts as the receiver. With a few exceptions, the majority of MIDI devices are equipped with two or three ports for this purpose: MIDI In, MIDI Out and in some cases MIDI Thru. The sender transfers data to the receiver via the MIDI Out jack. Data are sent via a cable to the receiver's MIDI In jack.
- MIDI Thru has a special function. It allows the sender to transmit to several receivers. It routes the incoming signal to the next device without modifying it. Another device is simply connected to this jack, thus creating a chain through which the sender can address a number of receivers. Of course it is desirable for the sender to be able to address each device individually. To achieve this, a MIDI channel message is sent with each MIDI event.
- MIDI Channel** This is a very important element of most messages. A receiver can only respond to incoming messages if its receive channel is set to the same channel as the one the sender is using to transmit data. Subsequently, the sender can address specific receivers individually. MIDI Channels 1–16 are available for this purpose.
- MIDI Clock** The MIDI clock message transmits real-time tempo information to synchronize processes among several connected devices (e.g., a sound generator's delay time to a MIDI sequencer).
- Modulation** A modulation influences or changes a sound-shaping component via a modulation source. Modulation sources include envelopes, LFOs or MIDI messages. The modulation destination is a sound-shaping component such as a filter or a VCA.
- Note On & Note Off** This is the most important MIDI message. It determines the pitch and velocity of a generated note. A note-on message will start a note. Its pitch is derived from the note number, which can range from **0** to **127**. The velocity ranges from **1** to **127**. A velocity value of **0** is equivalent to a note-off message.
- Normalize** Normalization is a function to raise the level of a sample to its maximum (**0 dB**) without causing distortion. This function automatically searches a sample for its maximum level and consequently raises the entire sample's level until the previously determined maximum level reaches 0 dB. In general this results in a higher overall volume of the sample.
- Panning** The process or the result of changing a signal's position within the stereo panorama.
- Pitch-Bend** Pitch-bend is a MIDI message. Although pitch-bend messages are similar in function to control change messages, they are a distinct type of message. The resolution of a pitch-bend message is substantially higher than that of a conventional controller message. The human ear is exceptionally sensitive to deviations in pitch, so the higher resolution is used because it relays pitch-bend information more accurately.

<b>Program</b>	<p>A program is a file that contains a list of all samples to be used, and settings for each sample (e.g., pad assignments, loop points, pitch tuning, effects, etc.) MPC X's Program Edit Mode is where you can edit and assign samples (read more about this in <a href="#">Operation &gt; Modes &gt; Program Edit Mode</a>). You can have a total of <b>128</b> programs in a project.</p> <p>There are three kinds of programs that use samples for their sound source. Drum programs are mostly used for creating drum programs and easy and quick assigning of samples to a pad. With keygroup programs, you can use one sample (or more) and spread it across two or more keys and play the sample chromatically over a keyboard. That way, there is no need to sample every key of, for instance, a piano. Clip programs use several samples that can be looped (clips), each of which can assigned to a pad; launching different combinations of clips together lets you create intriguing, layered performances.</p>
<b>Program Change</b>	<p>These are MIDI messages that select sound programs. Programs <b>1</b> through <b>128</b> can be changed via program change messages.</p>
<b>Release</b>	<p>An <a href="#">envelope</a> parameter. This term describes the descent rate of an envelope to its minimum value after a trigger is terminated. The release phase begins immediately after the trigger is terminated, regardless of the envelope's current status. For instance, the release phase may be initiated during the attack phase.</p>
<b>Resonance</b>	<p>Resonance or emphasis is an important <a href="#">filter</a> parameter. It emphasizes the frequencies around the filter cutoff frequency by amplifying them with a narrow bandwidth. This is one of the most popular methods of manipulating sounds. If you increase the emphasis to a level where the filter enters a state of self-oscillation, it will generate a relatively pure sine waveform.</p>
<b>Root Key</b>	<p>The root key defines the original pitch of a recorded instrument or of a sample. Samples in the MPC X contain the dedicated root key information. This information will be created automatically during recording or importing.</p>
<b>Sample</b>	<p>When you tap the pads on your MPC X, you can trigger sounds that we call <b>samples</b>. Samples are digitized snippets of audio that can be recorded using the recording (sampling) function of your MPC X or loaded from the Browser.</p> <p>You can edit and process a sample in different ways. For example, a sample can be trimmed, looped, pitch-shifted or processed, using various effects. When you have finished editing your sample, you can assign it to one or more drum pads to play it. Samples can be either mono or stereo.</p>
<b>Sample Rate</b>	<p>This is the frequency representing the amount of individual digital sample scans per second that are taken to capture an analog signal digitally. For normal CD audio recordings, <b>44100</b> samples per second are used, also written as <b>44.1 kHz</b>.</p> <p>MPC X offers sampling rates up to <b>96 kHz</b> while exporting audio (see <a href="#">Operation &gt; General Features &gt; Audio Mixdown</a>) and uses <b>44.1 kHz</b> for audio playback.</p>
<b>Sequence</b>	<p>A sequence is the most basic "building block" of music you can compose in MPC X. MIDI information from the MPC X pads, buttons, and Q-Link knobs are recorded to the tracks of a sequence. Each sequence on MPC X can contain <b>128</b> MIDI tracks and <b>8</b> audio tracks. Each project can store up to <b>128</b> separate sequences.</p> <p>The length of a sequence can be set from <b>1</b> to <b>999</b> bars, which would be enough to create an entire song using only one sequence. However, the MPC software has a dedicated Song Mode that lets you chain sequences together to create a song.</p>
<b>Song</b>	<p>MPC X's Song Mode that allows you to arrange different sections (verse, chorus, hook, etc.) in order to build a song. Each song can have up to <b>999</b> "steps" (stages in which a sequence may play one or more times). Each project can store up to <b>32</b> songs.</p>



- Stretch Factor** The stretch factor is a value generated by the **Warp** algorithm in the software. When you record an audio file, the current sequence tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this sequence tempo and the current value in the **BPM** field to generate the stretch factor.
- Sustain** This term describes the level of an **envelope** remaining constant after it has passed the attack and decay phases. Once reached, the sustain level is kept until the trigger is terminated.
- Time-Stretch** See **Warp** below.
- Track** A sequence on MPC X can contain **128** MIDI tracks and **8** audio tracks.
- Each **MIDI track** contains MIDI note events and controller data. In this case, the track contains no audio information—only MIDI information that uses the samples in a program (or an external MIDI sound module) to generate its audio. You can edit your performance in many different ways once the performance has been captured.
- Each **audio track** contains an audio signal that has been recorded or imported into your project. You can edit this audio within the software and incorporate it into your sequences alongside your MIDI tracks.
- Trigger** A trigger is a signal that initiates events. Trigger signals are very diverse. For instance, a MIDI note or an audio signal can be used as a trigger. The events a trigger can initiate are also very diverse. A common application for a trigger is its use to start an envelope.
- Warp** The Warp feature in the MPC X lengthens or shortens a region of an audio track or sample without changing its pitch. This enables you to fit the length of an audio track or sample to the length of a sequence, a bar in your sequence, etc. while maintaining its original key.
- Please note that the Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:
- Minimize the amount of pitch adjustment of warped audio.
  - Avoid warping very small audio regions.
  - Warp as few tracks or track regions as possible (i.e., reduce the number of total number of voices of the polyphonic limit that use the Warp algorithm at a given time), especially instances where the warped regions start at the same time.
  - Avoid rapidly triggering samples that are warped.

## SATA Drive Installation

To create more internal storage space on your MPC X, you can purchase a **SATA** (Serial ATA) drive and install it yourself, but read this chapter first.

Your MPC X can support nearly any standard 2.5" SATA drive on the market—either a solid-state drive (SSD) or hard-disk drive (HDD). Make sure it uses a **2.5"** (63.5 mm) form factor and uses (or can use) one of these file systems: **exFAT**, **FAT32**, **NTFS**, or **EXT4** (for read and write capability) or **HFS+** (for read-only capability).

**Note:** We recommend using an exFAT file system as it is the most robust one supported by both Windows and Mac OS X.

**Note:** Alternatively, you could install an **mSATA** (mini-SATA) drive, but make sure you also purchase an adapter that enables it to fit into a typical 2.5" SATA interface.

1. Make sure your MPC X is powered **off**.
2. Locate the **SATA drive panel** in the center of the bottom panel of MPC X. Use a Phillips-head screwdriver to remove the screws (don't lose them!), and remove the SATA drive panel.
3. Gently pull the **SATA connector and cable** out from inside MPC X. Be careful not to disturb anything inside—handle just the SATA connector and cable.
4. Connect your **SATA drive** to the **SATA connector**. Make sure the connection is secure.
5. Use four **3x5mm mounting screws** (included with MPC X or with your SATA drive) to secure the SATA drive to the SATA drive panel. Do not overtighten the screws, but make sure the drive is secure and does not shake.
6. Place the SATA drive panel back onto the bottom panel of MPC X, and use the original screws to secure it in place.

You can now access this drive while using MPC X!

In Standalone Mode, this drive will appear as a second internal drive.

In Controller Mode, this drive will appear as another drive connected to your computer (just as a USB drive or SD card connected to MPC X does).

## Technical Specifications

<b>Digital Audio System</b>	<b>ADCs</b>	24-bit @ 44.1, 48, or 96 kHz
	<b>DACs</b>	24-bit @ 44.1, 48, or 96 kHz
	<b>Digital Signal Processing</b>	32-bit floating point
<b>Mic Inputs 1-2</b> (2) balanced XLR+1/4" (6.35 mm) TRS	<b>Dynamic Range</b>	112 dB (A-weighted)
	<b>SNR</b>	111 dB (1 kHz, +4 dBu, A-weighted)
	<b>THD+N</b>	0.003% (1 kHz, +4 dBu, -1 dBFS)
	<b>Preamp EIN</b>	-135 dBu (max gain, 40 $\Omega$ source, A-weighted) -129.5 dBu (max gain, 150 $\Omega$ source, unweighted)
	<b>Frequency Response</b>	20 Hz – 20 kHz (+0.2 / -0.2 dB)
	<b>Maximum Input Level</b>	+12.5 dBu
	<b>Sensitivity</b>	-46 dBu
	<b>Gain Range</b>	58 dB
	<b>Line Inputs 1-2</b> (2) balanced XLR+1/4" (6.35 mm) TRS	<b>Dynamic Range</b>
<b>SNR</b>		112 dB (1 kHz, +4 dBu, A-weighted)
<b>THD+N</b>		0.003% (1 kHz, +4 dBu, -1 dBFS)
<b>Frequency Response</b>		20 Hz – 20 kHz (+0.1 / -0.1 dB)
<b>Maximum Input Level</b>		+20 dBu
<b>Sensitivity</b>		-9.5 dBu
<b>Gain Range</b>		29.5 dB
<b>Line Inputs 3-4</b> (2) balanced 1/4" (6.35 mm) TRS	<b>Dynamic Range</b>	114.5 dB (A-weighted)
	<b>SNR</b>	112.5 dB (1 kHz, +4 dBu, A-weighted)
	<b>THD+N</b>	0.003% (1 kHz, +4 dBu, -1 dBFS)
	<b>Frequency Response</b>	20 Hz – 20 kHz (+0.1 / -0.1 dB)
	<b>Maximum Input Level</b>	+20 dBu
	<b>Sensitivity</b>	-10 dBu
	<b>Gain Range</b>	30 dB
<b>Inst Inputs 1-2</b> (2) unbalanced 1/4" (6.35 mm) TS	<b>Dynamic Range</b>	113.5 dB (A-weighted)
	<b>SNR</b>	111.5 dB (1 kHz, +4 dBu, A-weighted)
	<b>THD+N</b>	0.003% (1 kHz, +4 dBu, -1 dBFS)
	<b>Frequency Response</b>	20 Hz – 20 kHz (+0.1 / -0.2 dB)
	<b>Maximum Input Level</b>	+10 dBu
	<b>Sensitivity</b>	-20 dBu
	<b>Gain Range</b>	30 dB
	<b>Input Impedance</b>	~ 1 M $\Omega$

<b>Phono Inputs</b> (2) unbalanced RCA	<b>Dynamic Range</b>	108 dB (A-weighted, 63 mVrms @ 1kHz, -1 dBFS, 20 $\Omega$ source)
	<b>SNR</b>	86 dB (A-weighted, 4 mVrms @ 1kHz, 20 $\Omega$ source)
	<b>THD+N</b>	0.005% (1 kHz, -46 dBu, -1 dBFS)
	<b>Maximum Input Level</b>	63 mVrms (1 kHz)
	<b>Sensitivity</b>	2 mVrms (1 kHz)
<b>Master Outputs 1-2</b> (2) impedance-balanced 1/4" (6.35 mm) TRS	<b>Dynamic Range</b>	114 dB (A-weighted)
	<b>THD+N</b>	0.006% (1 kHz, -1 dBFS)
	<b>Frequency Response</b>	20 Hz – 20 kHz (+0.0 / -0.2 dB)
	<b>Maximum Input Level</b>	+20 dBu
	<b>Sensitivity</b>	51 $\Omega$
<b>Outputs 3-4</b> (2) impedance-balanced 1/4" (6.35 mm) TRS	<b>Dynamic Range</b>	114 dB (A-weighted)
	<b>THD+N</b>	0.006% (1 kHz, -1 dBFS)
	<b>Frequency Response</b>	20 Hz – 20 kHz (+0.0 / -0.2 dB)
	<b>Maximum Input Level</b>	+20 dBu
	<b>Sensitivity</b>	51 $\Omega$
<b>Outputs 5-8</b> (4) impedance-balanced 1/4" (6.35 mm) TRS	<b>Dynamic Range</b>	118.5 dB (A-weighted)
	<b>THD+N</b>	0.001% (1 kHz, -1 dBFS)
	<b>Frequency Response</b>	20 Hz – 20 kHz (+0.1 / -0.0 dB)
	<b>Maximum Input Level</b>	+20 dBu
	<b>Sensitivity</b>	51 $\Omega$
<b>Headphone Outputs</b> (1) 1/4" (6.35 mm) stereo headphone  (1) 1/8" (3.5 mm) stereo headphone	<b>Dynamic Range</b>	111 dB (A-weighted)
	<b>THD+N</b>	0.007% (1 kHz, -1 dBFS, 10 mW/channel into 32 $\Omega$ headphones)
	<b>Frequency Response</b>	20 Hz – 20 kHz (+0.0 / -0.2 dB)
	<b>Maximum Power Delivered</b>	360 mW (<1% THD)
	<b>Maximum Output Level</b>	+20 dBu

<b>Mechanical</b>	<b>Pads</b>	(16) velocity- and pressure-sensitive pads, RGB-backlit (8) banks accessible via Pad Bank buttons
	<b>Knobs</b>	(16) 360° touch-sensitive Q-Link knobs for parameter adjustment (7) 270° knobs for gain, mix & level adjustment
	<b>Display</b>	10.1" full-color 1280x800 display with capacitive multi-touch
<b>Memory</b>	<b>RAM</b>	2 GB
	<b>Internal Storage</b>	16 GB (6 GB user storage + 10 GB pre-installed content) Expandable via SATA connections
<b>File System Compatibility</b>	exFAT (read & write) (recommended) FAT32 (read & write) NTFS (read & write) EXT4 (read & write) HFS+ (read only) Audio Files: AIF/AIFF, MP3, WAV	
<b>Connections</b>	(2) XLR+ 1/4" (6.35 mm) TRS inputs (Input 1/2) (2) 1/4" (6.35 mm) TRS inputs (Input 3/4: 1 stereo pair) (2) 1/4" (6.35 mm) TS instrument inputs (Inst 1/2) (2) RCA inputs (Input 3/4: 1 stereo pair, phono- or line-level) (2) 1/4" (6.35 mm) TS footswitch inputs (FS 1/2) (2) 5-pin MIDI inputs (8) 1/4" (6.35 mm) TRS outputs (Main L/R, Outputs 3/4–7/8: 4 stereo pairs) (4) 5-pin MIDI outputs (8) 1/8" (3.5 mm) CV/Gate outputs (1) 1/4" (6.35 mm) stereo headphone output (1) 1/8" (3.5 mm) stereo headphone output (2) USB Type-A ports (1) USB Type-B port (1) SD card slot (1) power adapter input	
<b>Power</b>	via power adapter: 19 V, 3.42 A, center-positive, included	
<b>Dimensions</b> (width x depth x height)	19.9" x 16.7" x 3.4" / 50.5 x 42.4 x 8.7 cm (display flat) 19.9" x 15.3" x 8.4" / 50.5 x 38.8 x 21.4 cm (display upright)	
<b>Weight</b>	12.57 lbs. 5.66 kg	

Specifications are subject to change without notice.

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