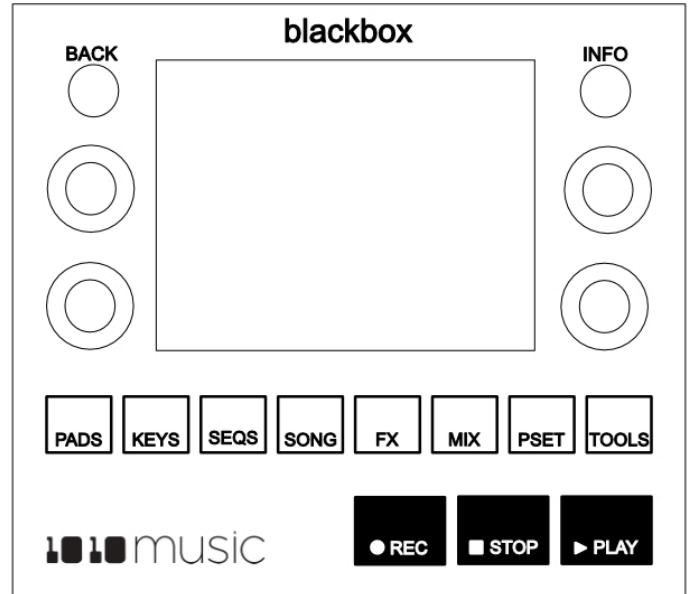# Blackbox Quick Start Guide

Blackbox is a compact sampling studio from 1010music. It lets you gather samples, arrange them into sequences, and record the sequences into song sections. You can play sequences by tapping on the pads, touching the virtual keyboard, or playing a MIDI device. You can further refine your sound by applying FX to pads and by mixing the sound levels and stereo effects. All of this work can be saved together into a Preset.

Blackbox was designed so that you build your song by working through the buttons from left to right. You can certainly jump around and do things in any order, but the general flow is to start on the left and move to the right. You start by selecting a preset with the samples you want to use or by building your own set of samples on the PADS screen. You can then use the PADS and KEYS screens to trigger the samples. Once you have a riff you like, you can select a sequence cell on the SEQ screen and then use PADS or KEYS to record one or more pads into a sequence.

Next you can use Song mode on the SONG page to record start and stop events for one or more sequences. You can use any combination of sequences in any section, and any combination of pads in any sequence. Along the way you can save your work into the current preset or a new one on the PSET screen.
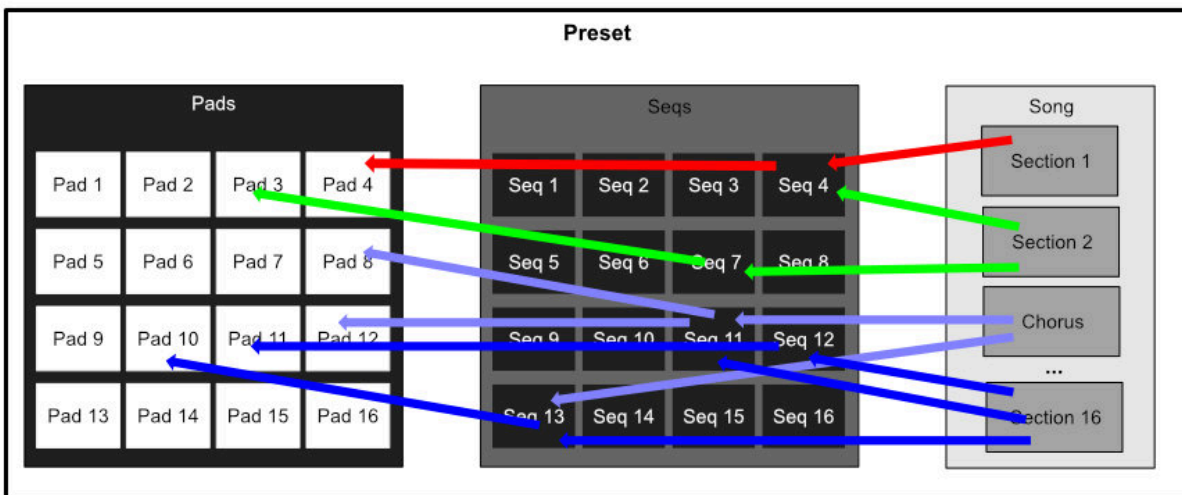

Figure 1: Pads, Sequences and Sections

Setup

To get started with blackbox you will need to insert the microSD memory card, plug it in to a power source and connect an audio output. Insert the microSD card into the slot in the front edge of the unit. All of your work will be stored on this microSD card. The card comes preloaded with presets and WAV files to get you started. You can connect the USB Power

cord to a standard wall adapter and plug it into a household power outlet. To work on the go, you can plug it into a USB battery, like you might use to recharge your phone. To hear the output, connect headphones to the PHONES jack or connect one or more audio outputs to your mixer. The PHONES jack will play all of the outputs combined.

Controls Overview

Blackbox has a fairly simple set of input controls. You choose which screen you are using by pushing the white navigation buttons. You control playback and recording of clips, sequences and songs using the black transport buttons. You select and trigger sound elements and configure parameters using the touch screen and the knobs. The small round INFO button allows you to drill into an item on the screen to edit more details. Push it repeatedly to access detailed information about the item. The small round BACK button takes you back to the main screen for the current functional area.

Pads

You can explore the available functionality of blackbox by trying out the preloaded presets. Push PSET, and then use the knobs to select a preset. Touch Load to open the selected preset. We will use the preset 000 SL BLASS MUSIC DEMO as our example in this guide. When you first load the preset, you will see the bank of Pads that have been assigned to this preset on the PADS screen. Touch a pad to select the pad and trigger the wav file. You can also select a pad by turning a knob. Push INFO a few times to cycle through the available configuration settings for this pad. Touch PADS or the BACK button to get back to the PADS screen. A blue progress bar along the bottom of a pad shows you its playback state. Some pads, such as SY C LFO in this preset, use the LaunchMode of GATE, and will play as long as you are touching the pad. Other pads, such as PC O BLIP, use the LaunchMode of Trigger, so tapping the pad will play the entire WAV file. The Toggle LaunchMode will play the WAV file from the time you first tap the pad until you tap it again to turn it off.

Figure 2: PADS Screen

Keys

The KEYS screen has a keyboard that you can use to play the currently selected pad and pitch shift it based on the note selected. Select a pad to use on the PADS screen (e.g. SY CHOR), push the KEYS button and then play a tune by touching the notes on the virtual keyboard. By default, the base wave file is played on C4. However, some WAV files define a different note as the base note. Use the arrows to slide the keyboard an octave or a key left or right. The icon in the top left shows which pad is currently selected.
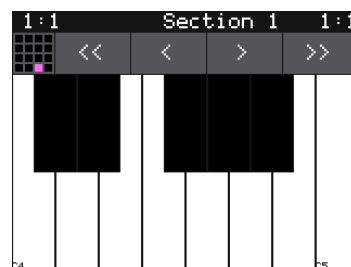

Figure 3: KEYS Screen

Sequences

On the SEQS screen you can record and play back musical sequences. Push SEQS and you will see a grid of sequences. The currently active sequences have white frames around them. Before we push PLAY to hear the sequences, let's make sure we are not in Song mode. Push SONG to display the SONG screen. Note the Song button at the top of the touch screen. If it is blue, touch the on screen Song button to deactivate Song mode.
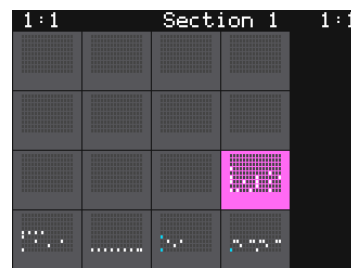

Figure 4: SEQS Screen

Now, push SEQS so we can watch the sequences as they play. Push PLAY now and you will hear the selected sequences play. A progress bar at the bottom of each active SEQ shows you the play state of that sequence. Touch an SEQ to activate or deactivate it. If you go back to PADS you can see the pads that are being triggered by the sequencer over time. The sequences will play in a loop until you deactivate them or push STOP. If any PADS remain playing after you push STOP, you can stop them by pushing STOP a second time. While sequences are playing, the counter in the top left of the screen shows you how many bars and beats have played since you pushed PLAY. The counter in the top right corner shows how many bars and beats have played in the current loop of the selected sequence.

Playing sequences is fun, but recording your own is even better. The pink square is the currently selected sequence. You can see the sequence number of the selected sequence at the top of the screen both on the SEQ and the PADS screen (as long as you are not in Song mode). Select and activate a sequence you want to record into. Go to the PADS or KEYS screen, push PLAY and REC to start recording. Start playing something by touching the pads or the keys. The sequence will continue to play and record in a loop until you press stop. Each subsequent loop allows you to layer more notes on top of those previously recorded. You can have other sequences playing while you record new sequences, or you can deactivate all sequences to record without them.
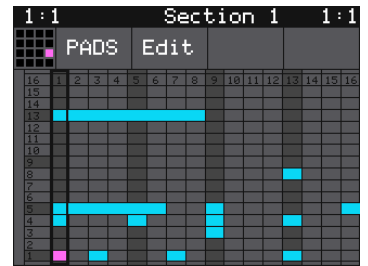

Figure 5: Sequence Piano Roll Editor – PADS Sequence

You can view and edit the sequence by pressing INFO with the sequence cell selected. Toggle the piano roll mode between PADS and KEYS modes by touching the mode selector to the right of the grid icon. You can touch the screen to add notes, and turn knobs to select and adjust the length of notes. In PADS mode, each row represents a different pad and each bar represents a trigger of that pad. In KEYS mode, each row represents a note on the keyboard and the bars represent note events. The black and white bars on the left side of the screen represent the notes on a keyboard and the Cs are numbered to show you which octave you are in. Use pinch and stretch touch gestures to zoom in and out on the piano roll. Push INFO to cycle through more sequence parameters, such as Step Length, Step Count and Quant Size. The top left grid icon reminds you which sequence you are editing. In KEYS mode, the top right grid icon shows which pad is currently controlled in the piano roll. Touch this icon to switch to a different pad if you want more than one pad in the sequence.

Figure 6: Sequence Piano Roll Editor - KEYS Sequence

Song Sections

Song sections allow you to record a series of on and off events for sequences. You can play multiple sequences simultaneously, with independent start and stop times for each one. To hear a song section by itself, make sure all of the sequences are deactivated first. Then push the SONG button to view the SONG screen. Touch the on screen Song button to toggle the Song mode state to active (blue) if needed. Turn off Loop mode by touching the Loop button as well. Now push the PLAY button and blackbox will play back a previously recorded song, section by section. The currently playing section is highlighted in pink. In Song mode, the context display at the top of the screen now displays the name of the current section, e.g Section 1. On the SEQS screen, you can watch as the song section turns sequences on and off, and you can activate additional sequences if you want. If you want one section to
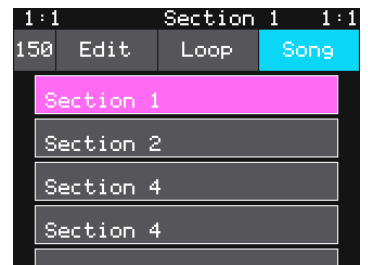

Figure 7: SONG Screen

play in a loop, select that section and touch Loop to activate loop mode, then press PLAY. Touch Loop again when you are ready to fall through to the next section.

Once you have a few sequences recorded, you can create your own song section. A new preset starts with one song section and you can add more up to a total of 16 sections per preset. Touch Edit, then ADD to insert a new section after the currently selected section. When you are in Song mode, the PLAY button will play both the current song section and any active sequences. The REC + PLAY button combination will record sequence on and off events into the currently selected section. Please note that Song mode only records sequences. It does not record anything played on PADS or KEYS screen. But you can use PADS and KEYS to play along with what you have recorded.

The SONG screen also allows you to change the BPM of the internal clock, and alter the length of each song section. The current BPM is displayed in the top left below the bars and beats counter. Turn the top left knob to adjust the BPM. Select a section and push INFO to view and change the number of beats in this section. Back on the main SONG page, use the EDIT menu to manipulate song sections.

Effects

On the FX screen, you can configure two different effects and see which pads are sending their output to that effect. To do this, we'll need to go back and send the output of one or more pads to each of the effects. Push PADS and select a pad. Push INFO twice and you will see an output select button next to the grid icon in the top left corner. Touch the output selector and then touch FX1 or FX2 to send this pad to the corresponding effects bus. Now push FX to go back to the FX screen. Touch one of the FX panels on either the left or right side of the screen to select it. The pads that are assigned to this FX bus are now highlighted pink. Push INFO to cycle through the parameters for this effect. The left effect is a delay and the right effect is a reverb. The output of the effects will be routed to

Figure 8: FX Screen

Out1. Turn the knobs to adjust the parameters and hear the results in real-time as a sequence or song section is playing. Blackbox will record the final state of the effects parameters in the preset.
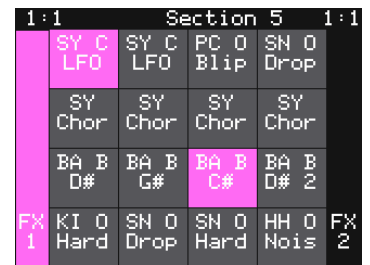
Mixer

On the MIX screen you can independently adjust the volume and pan of each pad. The number on the pad represents the dB level of the audio output. Turn one of the top two knobs to adjust the level of the currently selected pad. The bar at the bottom of the grid cell represents the pan position for the pad. Pan is only available if the pad is routed to a stereo output. When the pan line is in the middle, the output is balanced equally between left and right. Turn one of the bottom two knobs to adjust the pan.
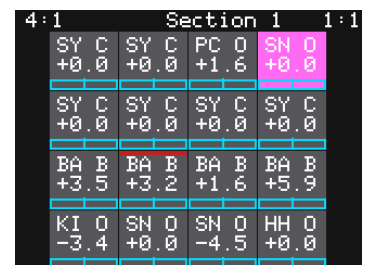

Figure 9: MIX Screen

The MIX screen also allows you to mute individual pads. Push the INFO button on the MIX screen to enter MUTE mode. In this mode, active pads have a green background and muted pads have a red background. Push INFO again to go back to controlling level and pan. Any muted pads will have a red bar across the top of the pad.

Tools

The Tools screen is the home for global settings that apply across presets. This is where you can adjust the Headphone volume and turn on the metronome. Push INFO to cycle through the available settings pages. Turn a knob to adjust the value of the nearest setting.
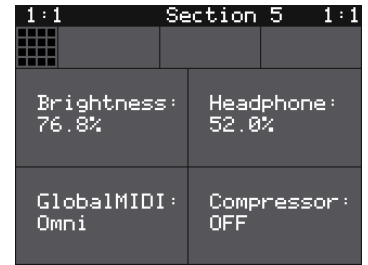

Figure 10: TOOLS Screen

MIDI Devices

Blackbox is designed to work with MIDI devices to offer a more tactile input mode and a bigger keyboard. Plug your MIDI input device into either the Device USB jack or the MIDI In TRS jack. If you are having trouble getting MIDI to work through the TRS jack, please read the Mini TRS Audio Jacks for MIDI Connections Compatibility Guide on 1010music.com.

By default, blackbox is configured so that the pads and sequences can be triggered by your MIDI device on any and all MIDI channels. You can configure a specific channel by setting the GlobalMIDI parameter on the TOOLS screen.

The tables below show how the MIDI note numbers map to the blackbox pad and sequence triggers. The range for pads is Note 36 (usually C2) through Note 51 (usually D#3/Eb3). The range for triggering sequences is Note 52 (usually

48	49	50	51
44	45	46	47
40	41	42	43
36	37	38	39

Figure 11: MIDI Notes to blackbox Pads

64	65	66	67
60	61	62	63
56	57	58	59
52	53	54	55

Figure 12: MIDI Notes to blackbox Sequences

E3), through Note 67 (usually G4). You may need to shift your MIDI device up or down octaves to reach these notes. You can also configure a specific pad to be played in KEYS mode via MIDI by assigning a MIDI channel to the PAD on the pad's parameters screen. Push PADS, select the desired pad and then push INFO until you see the parameter page with the setting for MIDI. Assign a specific channel to this pad and now your MIDI device will pitch shift this pad to play varying notes that can be recorded into a sequence. You will need to use a different channel to trigger pads and sequences, which you can define on the TOOLS page as the GlobalMIDI setting. You will need to switch MIDI channels on your MIDI device if you want to switch between triggering pads and sequences, and playing notes for a single pad.

Updating Your Blackbox

You can use the microSD card to update the firmware running on blackbox. We highly recommend that you check for firmware updates regularly. You can find firmware updates and instructions for installing them on our forum. You must be a registered member of the forum to see and download the latest firmware. Register for free at forum.1010music.com, and then scroll down to the Firmware Downloads forum. Blackbox displays the current version on the system start up screen.

Additional Information

This quick start guide reviews the basics to get you started but blackbox can do so much that is not covered here. You can find videos and a full user guide on our website at 1010music.com/blackbox_support. Join the conversation about blackbox at forum.1010music.com. We can't wait to hear what you do with your blackbox!

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