Page	Parameter	Description
MIDI	**Global In**	Specifies which MIDI channel is used to trigger pads and sequences as well as perform other functions. See Work with MIDI Inputs below for more information. When set to Omni, these functions will be triggered by all MIDI channels – excluding any MIDI channel that has been assigned as the MIDI In for a particular pad. You can also disable Global In by selecting None.
	MIDI Seq	Specifies which MIDI channel is used to play notes into a MIDI or Keys mode sequence for recording. For a sequence in MIDI Mode, notes are routed through to the sequence's MIDI Out channel during recording and playback; in Keys, they are only routed out during playback. Use the Global In channel to record Pads sequences.
	PGM In	When set to **ON**, MIDI Program Change messages on the Global In channel can be used to select Presets.
	Pad Record	When set to **ON**, MIDI Triggered Recording is enabled.
	MIDI Out	Controls which MIDI signals are sent to the TRS MIDI OUT port. Options are: • Enabled (sends notes from playing sequences – see Work with MIDI Outputs on page 108 for more information) • MIDI In Thru (passes only MIDI messages from the TRS MIDI IN port) • USB Dvc Thru (passes only MIDI messages from the USB DEVICE port)
	USB Dev Out	Enables or disables MIDI message output to the MIDI device plugged into the USB DEVICE port.
Clock	**Receive**	Selects a source for the clock signal when you have one or more MIDI devices connected to blackbox. Your choices are: USB Device (the USB port); MIDI In (the MIDI IN TRS jack); All (both USB and TRS active at once); or Off (use the blackbox internal clock). Select All when you only plan to have one device with a clock connected at a time and don't want to have to keep changing this parameter... or if you want to let the various clocks fight it out. (Hey, you do you.)
	Send	Sets the output routing for the clock signal when you have one or more MIDI devices connected to blackbox. Your choices are: USB Device (the USB port); MIDI In (the MIDI OUT TRS jack); All (both USB and TRS); or Off (no clocks are sent out).
	Analog In	Controls how the signal received in the CLOCK IN jack is interpreted. Set this to the PPQ (number of pulses per quarter note) generated by the external clock source. Options are 1, 2, 4, 8, 12, and 24 PPQ.
	Analog Out	Controls the clock signal sent out through the CLOCK OUT jack. Set this to the PPQ (number of pulses per quarter note) expected by the external device that will receive the clock signal. Options are 1, 2, 4, 8, 12, and 24 PPQ. Note that Analog In and Analog Out can have different values.

USE MIDI DEVICES WITH THE BLACKBOX

The blackbox's capabilities "in the (black)box" can be extended greatly by connecting it to MIDI devices. You can use external devices to control blackbox and play sounds, and you can use blackbox as a MIDI sequencer/controller. The blackbox can share its clock with other devices and sync to external clock signals. (More on that later.)

Work with MIDI Inputs

Start by plugging in your MIDI input device. You can use either the rear-panel DEVICE USB-A jack or the TRS MIDI IN jack. Because there can be compatibility issues with how TRS-to-DIN adapter cables are wired (learn more at https://1010music.com/stereo-minijacks-midi-connections-compatibility-guide), we recommend that you use the MIDI adapter cables that came with your blackbox.

The blackbox offers several options for MIDI input, leading to distinct workflows. Most of these are dependent on MIDI Channel selections made in the **TOOLS** page MIDI tab:

Global In: This MIDI Channel is used to activate a wide variety of functions in blackbox, letting you turn an ordinary MIDI keyboard into a powerful control surface. The most common use for the Global In MIDI Channel is to trigger pads as one shots, but there are many more functions you can do with this channel. These functions are mapped to MIDI Note numbers as follows:

- Trigger Song scenes: notes 2–33
- Select and trigger the previous scene: note 34
- Select and trigger the next scene: note 35
- Trigger pads in one-shot mode: notes 36–51
- Trigger sequences: notes 52–67
- Record into a pad: notes 68–83
- Clear pads: notes 84-99
- Select the previous pad: note 100
- Select the next pad: note 101
- Play the selected pad: note 102
- Record to the selected pad: note 103
- Clear the selected pad: note 104

We'll cover a lot of these functions in more detail later in this section.

MIDI Seq: This MIDI Channel is used to play notes into a sequence for recording. It can also be used to play MIDI through to an external MIDI Device.

- For a sequence in MIDI Mode, notes played on this channel will be recorded into the selected sequence. They will also be passed through to the MIDI Out channel mapped to that sequence. That lets you hear the instrument the MIDI sequence will be playing as you record notes.
- For a sequence in Keys Mode, notes on this channel will be recorded into the selected sequence but not passed through to the MIDI Out. When you play back the sequence, notes will be sent to the MIDI Out channel.

In Pads Mode, the MIDI Seq channel is not used for recording. Instead, all operations in Pads Mode use the Global In channel, which we'll discuss in detail next.

To Trigger Pad Hits and Sequences with MIDI

The Global In channel lets you trigger pads and sequences by playing particular notes on that channel. When set to Omni, blackbox will respond to input on all MIDI channels, but you can configure a specific channel by changing the value of the Global In parameter on the Tools screen.

1. Push **TOOLS** to display the Tools screen and select the MIDI tab.
2. Set the Global In parameter to the MIDI channel that you want to use to trigger pads and sequences. Set this to Omni to respond to all MIDI input channels that have not been otherwise assigned.
3. Connect your MIDI device to blackbox and configure it to use the selected Global In MIDI channel.
4. Play some notes on your MIDI device to trigger pads. The table on the right shows the default mapping of MIDI note numbers to the blackbox pads. The range for pads is Note 36 (usually C2) through Note 51 (usually D#3/Eb3). You may need to shift your MIDI device up or down octaves to reach these notes.
5. Push **PADS** and you can watch the pads activate as you play notes on your MIDI device.
6. To customize which MIDI note plays a particular pad, select that pad and press INFO twice to get to the Pad Parameters screen. Touch the Conf tab and scroll down to Pad Note, then dial in the precise note you want. To return to the mapping described above, set Pad Note to Default.

48	49	50	51 D#3
44	45	46	47
40	41	42	43
36 C2	37	38	39

Default Mapping of MIDI Notes to Blackbox Pads

64	65	66	67 G4
60	61	62	63
56	57	58	59
52 E3	53	54	55

Default Mapping of MIDI Notes to Blackbox Sequences

7. Sequences can be triggered from the Global In channel using a slightly higher range of 16 notes. The table on the right shows how the MIDI note numbers map to the blackbox sequences. The range for triggering sequences is Note 52 (usually E3) through Note 67 (usually G4). You may need to shift your MIDI device up or down octaves to reach these notes. Playing a MIDI note for a given sequence will toggle its active state on and off.
8. Push **SEQS** and you can watch the sequences start and stop on the Sequences screen. A white rectangle will appear at the bottom of the sequence cell to show that the sequence is queued up to play at the quantization break. This rectangle is replaced with a blue progress bar when the sequence starts to play. The bar will turn into a white rectangle again when the sequence is playing out after deactivation.

Per Pad MIDI In: In addition to these global operations, each pad can have its own specific MIDI In channel, which is set in the Pad Parameters screen under the Conf tab. Setting a pad's MIDI In channel gives you several control workflows.

To Play Notes and Use Common MIDI Modulation Commands on a Pad:

Any pad that has its own MIDI In channel specified can use MIDI input on that channel to play a pad chromatically (in the case of single Sample, Multi-sample, Granular, or Clip modes). If the pad is set up as a Slicer, MIDI notes will trigger specific slices just as they do when played from the **KEYS** screen. Here's how to set it up:

1. Push **PADS** and select the pad you want to work with.
2. Push **INFO** twice to get to the Pad Parameters screen, then touch Conf to access the Configuration page.
3. Scroll down to MIDI In and set a specific channel for the pad. Now it's ready to use with your external MIDI devices.
4. Play notes on the connected MIDI controller using the channel selected and they will trigger the pad chromatically or play slices.
5. Touch Main and then touch whichever control you'd like to modulate.
6. Push **INFO**. The Modulation page will be called up. For each source, you can choose from the following MIDI options (as well as the internal LFO):
    - VEL: MIDI Velocity (also the Velocity slider on the **PADS** screen)
    - PTCH: MIDI Pitch Bend
    - MODW: MIDI Mod Wheel (Control Change 1)
    - MVOL: MIDI Volume (Control Change 7)
    - MPAN: MIDI Pan (Control Change 10)

As noted earlier, once you select a Source for a modulation slot, its associated box beside the relevant control will light up blue.

To Record Sequences in Keys Mode with MIDI

Keys sequences work a bit differently than Pad Mode when it comes to recording. Notes on a pad's MIDI In channel can be used to record Keys Mode sequences, as long as the sequence is selected and mapped to that pad. Notes received on the MIDI Seq channel may also be recorded into the selected Keys sequence.

1. Push **SEQS** and select which sequence you'd like to record into. It needs to be highlighted (pink) and selected for playback (white border).
2. Press the **INFO** button to access the piano roll screen. From the top of the screen, select the pattern (A–D) to record into, then select KEYS Mode.
3. On the top right grid, select the pad you want to trigger with this sequence.
4. Press **REC** + **PLAY** to start recording. The sequence will capture notes as you play.

Note:

► For sequences in Keys mode, all patterns in a sequence cell use the same Pad.

To Map MIDI Control Changes to Pad and Effect Parameters

You can use MIDI CC signals to control many pad and effect parameters in real time. These changes are not recorded into sequences.

1. Navigate to the parameter you want to control. Any parameter that has four dots to the right of the dial or the parameter line can be modulated. Touch the onscreen knob or the parameter list entry to select it.
2. Push **INFO**. The Modulation page will be called up.
3. Select the source you want to change, and then touch the Learn box at top right; it will light up blue.
4. Move the appropriate control on your MIDI device, and it will be assigned as a modulator. The Learn box will turn gray again when a modulator is successfully assigned.
5. Adjust the Amount for the source to control the amount of impact the mapped control will have on the value of the parameter.

To Clear a MIDI CC Mapping to a blackbox Parameter

1. Go to the parameter screen for that parameter.
2. Select the parameter and push **INFO**.
3. On the modulation parameters screen, select the Source row for the slot you want to clear and set the Source to None.

Note:
▶ Different parameters work differently with MIDI CC inputs. For example, for the Filter parameter, the values are bipolar with 0 at the middle of the range for the control by default. However, for the Start parameter, the values only move in one direction.
▶ You can map the same MIDI control to more than one parameter on more than one pad or effect.
▶ MIDI CC controls use the on-screen parameter value as a starting point. The blackbox then maps the range of the controller to values from the starting point to the value of Starting Point +/- the Modulation Amount parameter. For example, if the Filter parameter is set to 20%, and you set the Modulation Amount to 15%, then the lowest value of the MIDI control will map to 5% (20% - 15%), and the highest value of the MIDI control will map to 35% (20% + 15%).
▶ MIDI CC mappings are saved in the blackbox preset as a mapping to a specific MIDI CC number on a specific MIDI Channel. If you swap out MIDI controllers, and the new controller uses the same MIDI CC number and channel, it will continue to modulate the assigned parameter.
▶ The MIDI channel assigned to a pad does not need to match the MIDI channel used for MIDI CC modulation.
▶ There is a maximum of eight MIDI CC mappings per pad. If you try to add a ninth, it will be dropped.

MIDI Triggered Recording

The Global In channel also contains notes mapped to help you record into pads, but before we can get into those operations, first we have to set up blackbox to allow them.

MIDI triggered recording can help streamline the workflow for live looping, field sampling, and more. With this feature, you can use a connected MIDI controller to start and stop recording for an empty pad, clear a pad, and change pad selections.

To Configure Blackbox to Use MIDI Triggered Recording:

1. Push **TOOLS** and select the MIDI tab, then turn Pad Record ON.
2. Connect your MIDI controller to the blackbox via the USB DEVICE port or the TRS MIDI IN jack.
3. Set the Global In channel to match the channel being output by your MIDI controller, or to Omni to use all available channels not used by Per Pad MIDI In.
4. You may also want to use Pad Templates to set up your pads in advance of recording. See CREATE PRESET TEMPLATES FOR RE-USE on Page 116 to learn how to do this.

When using the Global In note map, blackbox maps two MIDI notes to each pad: one note starts and stops recording; the other note clears the pad. Recording, including MIDI triggered recording, will only work if the target pad is already empty; loaded pads must be cleared first. Note that clearing a pad removes the mapping of the WAV file to the pad, but does not delete the WAV file from the microSD card.

To Clear a Specific Pad Using MIDI

Clearing a pad removes the mapping between the WAV file and the pad. It does not delete the WAV file.

1. Set up blackbox for MIDI triggered recording as described above.
2. Press the MIDI Note that maps to the pad you want to clear, as shown in the map on the right. The blackbox will open the **PADS** screen and select the corresponding pad. Any existing mapping to WAV files for that pad will be cleared. Pad parameters will not be cleared.

96	97	98	99 D#7
92	93	94	95
88	89	90	91
84 C6	85	86	87

MIDI Notes to Clear Pads

To Trigger Recording to a Specific Pad Using MIDI:

1. Set up blackbox for MIDI Triggered Recording as described above.
2. Press the MIDI Note that maps to the pad you want to record into, as shown in the map on the right.

80	81	82	83 B5
76	77	78	79
72	73	74	75
68 G#4	69	70	71

MIDI Notes to Trigger Pad Recording

The blackbox will jump to the **PADS** screen and select the corresponding pad. If the pad is empty, you will see the recording screen and recording will begin, the same as if you had pressed the **REC** + **PLAY** transport buttons. Any armed Clips will start to play.

Recording will end when:

- you press the corresponding MIDI Note again,
- when the recording reaches the length specified in the recording settings, or
- when you press the **STOP** transport button.

If you have RecToPlay set to ON (you'll find it in **TOOLS** - > Rec) and have specified a recording length, the pad will start playing as soon as recording is finished.

While recording, MIDI Clear notes and MIDI Action notes will be ignored.

Note:
► Some devices map the MIDI note numbers one octave lower. The mapping here assumes C4 is Note 60.
► If you want to configure lengths for each pad independently, make sure you have RecConfig set to Per Pad (**TOOLS** - > Rec).
► If you have the same MIDI channel (or Omni) for both MIDI Pads and MIDI Keys, you will trigger both playback of the pad via MIDI Keys mode, and the MIDI Pads mapping action when you trigger a MIDI note into blackbox. This may be fun to do, but you may want to use separate MIDI channels if you don't want to trigger MIDI Keys and MIDI pads behavior with the same controller.
► The Novation Launch Pad controllers work well with blackbox when the LaunchPad is configured in **Drum mode**. With the default note mapping, the bottom left quadrant of the LaunchPad triggers pads, the bottom right quadrant triggers recording, the top left quadrant triggers sequences, and the top right quadrant clears pads. When in the correct mode, the Launchpad lights the buttons using the color pattern shown in the diagram pattern below.

To Use MIDI Notes Actions to Record or Clear a Pad

The blackbox has allocated a range of MIDI Notes that map to actions that control pads. If you don't want to use the entire range of notes for triggering and clearing pads as described above, these five notes at the high end of the keyboard range will still prove useful.

1. Set up blackbox for MIDI Triggered Recording as described above.
2. Press the MIDI Note that maps to the desired action using the MIDI Note to Action Map below:

MIDI Note Number	Action
100 (usually E7)	Select Previous Pad
101 (usually F7)	Select the Next pad
102 (usually F#7)	Play the currently selected pad
103 (usually G7)	Record to currently selected pad (must be empty)
104 (usually G#7)	Clear the currently selected pad

Note:

- Some devices map the MIDI note numbers one octave lower. The mapping here assumes C4 is middle C.
- If you want to configure lengths for each pad independently, make sure you have RecConfig set to Per Pad on the Recording settings page in TOOLS mode.
- If you're recording a sequence in Pads Mode, notes on the MIDI In channel for that pad will play it in real time, but won't be recorded – only MIDI on the Global In channel (or playing the pads on the screen) will be recorded.
- If the Global In channel is set to Omni, any pad with a specified MIDI in channel will not respond to messages on other channels – it is 'excluded' from control by the Global In.

Using Song Mode with MIDI

The Global In channel lets you trigger pads and sequences by playing particular MIDI notes on that channel. When set to Omni, blackbox will respond to input on all MIDI channels, but you can configure a specific channel by changing the value of the Global In parameter on the Tools screen.

To Trigger Song Scenes with a MIDI Device

1. Push **TOOLS** to display the Tools screen and select the MIDI tab.
2. Turn the knob next to the Global In parameter to select the MIDI channel that you want to use to trigger pads, sequences, and scenes. Set this to Omni to respond to all MIDI input channels that have not been otherwise assigned.
3. Connect your MIDI device to blackbox and configure it to use the selected Global In MIDI channel.
4. Push **SONG** and make sure that the Song tab is illuminated (Song Mode ON).
5. Scenes can be triggered using a specific range of notes on your MIDI device. The range for the 32 possible scene triggers is Note 2 (usually D–1) through Note 33 (usually A1). The first scene is triggered by Note 2, the second scene by Note 3, etc. You may need to shift your MIDI device down by one or more octaves to reach these notes.
6. Push **SONG** and you can watch the scenes switch as you play the appropriate notes.
7. There are two more important operations available for Song Mode control via MIDI: Note 34 (usually A#1/Bb1) selects and triggers the previous scene, and Note 35 (usually B1) selects and triggers the next scene.

Summary of MIDI Global In Channel Note Mappings

Here's a summary of all of the note mappings that blackbox will respond to when notes are received on the Global In:

MIDI Note Range	Action
2-33 (D-1 - A1)	Select and trigger a scene. Scenes are mapped starting at the bottom left, moving across and then up
34 (A#1)	Select and trigger the previous scene
35 (B1)	Select and trigger the next scene
36-51 (C2-D3#)	Trigger playback for a pad. Pads are mapped starting at the bottom left, moving across and then up.
52–67 (E3 – G4)	Select and trigger a sequence. Sequences are mapped starting at the bottom left, moving across and then up.
68–83 (G#4 – B5)	Trigger recording for a pad. Pads are mapped starting at the bottom left, moving across and then up.
84–99 (C6 – D#7)	Clear a pad. Pads are mapped starting at the bottom left, moving across and then up.
100 (E7)	Select the previous pad
101 (F7)	Select the next pad
102 (F#7)	Play the currently selected pad
103 (G7)	Record to the currently selected pad (must be cleared first)
104 (G#7)	Clear the currently selected pad

Finally: if you're not careful with MIDI triggered recording and pad clearing, you could unintentionally clear pads, or record data into blank pads without meaning to. If you are not using this feature, you can disable it.

To Disable MIDI Triggered Recording and Pad Clearing

1. Push **TOOLS**.
2. Touch the MIDI tab at the bottom of the screen.
3. Scroll to Global In and set it to None.

Sharing of MIDI Input Channels

How do all of these MIDI Input channel assignments interact? Basically, they all stay out of each other's way. Any channel that is assigned to a specific Pad or to the MIDI Seq channel will be excluded from the Omni pool of channels when Global In is set to Omni. However, any specific channel assignments will be applied, even if they are assigned to two things.

Here's another way to think about it:

- If the MIDI In channel is assigned on a pad, that pad will always respond to MIDI notes received on that channel.
- Pad hits and sequences will be triggered by notes on an incoming MIDI channel if that channel has been specifically assigned as the Global In channel on the Tools screen.
- If Global In is set to Omni, and the incoming notes are on a MIDI channel that has not been specifically assigned to anything else (a pad's MIDI In, or the MIDI Seq parameter), then the notes will be applied as per the MIDI Global In Channel Note Mappings chart on the previous page.
- If Global In is set to Omni, and the incoming notes are on a MIDI channel that has been specifically assigned as a particular pad's MIDI In channel or the MIDI Seq channel, then the notes will only be used by the specifically assigned channel mapping.
- If Global In is set to a specific MIDI Channel, and that same channel is assigned as the MIDI In channel for a pad, then the notes will trigger the specific pad, and the notes will be applied as per the MIDI Global In Channel Note Mappings chart on the previous page.
- If Global in and MIDI Seq are set to the same MIDI channel, then notes received on that channel will be used both to play and record notes through the selected MIDI sequence or record into the selected Keys sequence, and the notes will be applied as per the MIDI Global In Channel Note Mappings chart on the previous page.

Be careful with the last two scenarios, as they have the potential to lead to very confusing results!

Use MIDI Program Change to Open a Preset

Some MIDI controllers can transmit a MIDI command to trigger a program change. The blackbox can be configured to load presets in response to MIDI Program Change messages, with the program number assigned to presets in alphabetical order, just as they are listed on the Preset screen when you push the **PSET** button.

Keep in mind that a program change, just like any other time when you change presets, will cause the preset to change immediately without saving your edits. So be sure to save your preset if needed before initiating a program change.

Because of the potential for data loss, blackbox has a Tools parameter that allows you to control whether or not the device responds to MIDI Program Change messages. This parameter is called PGM In, and is by default turned off.

To Enable or Disable MIDI Program Changes

1. Push **TOOLS**.
2. Touch the MIDI tab at the bottom of the screen.
3. Scroll down to PGM In and turn it ON or OFF as desired.

If you set PGM In to ON, any MIDI program change on any connected MIDI channel will cause blackbox to load the corresponding preset.

Note:
► The blackbox supports using MIDI Program Changes to access the first 128 presets. This limit is the result of how MIDI manages program banks.
► The blackbox does not pass through or send out MIDI Program Changes.
► On some devices, the first program is labeled 0, on others it is labeled 1. Behind the scenes, it is always PGM 0.

Work with MIDI Outputs

In addition to all these functions controllable via MIDI input, you can also use blackbox sequences to send note events to drive other MIDI instruments. Connect your blackbox to a MIDI device via the MIDI Out TRS jack. We recommend using the TRS-to-DIN MIDI adapters that came with blackbox, so as to avoid the compatibility issues discussed in Work with MIDI Inputs on page 96.

You can send MIDI notes out while also playing pads via Keys or Pads sequences, or you can use MIDI Sequences to send out notes without playing anything on the blackbox itself.

One important distinction between MIDI input and MIDI output in blackbox is that while MIDI In can use the Global In, MIDI Seq In, or assigned to a particular pad, MIDI output is always generated by a sequence, even when it's played back as part of a scene in Song Mode.

As with MIDI input, MIDI output can be set up in a variety of ways. Two important global MIDI output settings are controlled from the MIDI tab of the **TOOLS** page:

MIDI Out: This controls which MIDI signals are sent to the TRS MIDI OUT port.

- Enabled: sends either:
  - Note playback from sequences that have a MIDI Out channel assigned; or
  - Notes (with velocity) and pitch bend from the MIDI Seq channel, which are passed through to the MIDI OUT if the selected sequence is in MIDI Mode.
- USB Dvc Thru: only passes through MIDI from the USB DEVICE port.
- MIDI In Thru: only passes through MIDI from the TRS MIDI IN jack.

USB Dev Out: This controls whether MIDI signals are sent out to the DEVICE port.

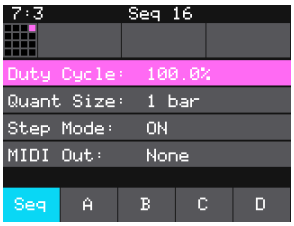
Note:
► Pitch Bend is not recorded into sequences. It is only passed through during playback when a MIDI sequence is selected.
► MIDI Control Changes (CC) are not passed through during playback and are not recorded into sequences.

Use MIDI Out to Play an External MIDI Instrument Along with blackbox

You can enhance the sound from a sequence in Keys or Pads mode by sending the sequence notes out to a MIDI instrument. Here's how.

To Send MIDI Notes from a Keys or Pads Sequence to an External MIDI Instrument

1. Connect your MIDI instrument to the blackbox MIDI TRS Output jack and configure it to use the desired MIDI channel.
2. Push **SEQS** and select a Pads or Keys sequence to drive the MIDI device.
3. Push **INFO** twice to get to the sequence parameters screen, then select the Seq tab at the bottom of the screen.
4. Set the MIDI Out parameter to match the MIDI channel used by the MIDI instrument.
5. Activate the sequence and push **PLAY** on blackbox. The blackbox will now send the note events from the configured sequence to the MIDI instrument while also playing the internal pad or pads.



Sequence Parameters

Note:

- If you have a MIDI Out channel assigned to a Keys or Pads mode sequence, blackbox will only send the MIDI notes out during playback of the sequence. It will not send out MIDI notes while recording the sequence.
- The MIDI Out channel for a sequence can also be used to control external lighting or other MIDI devices.

Use MIDI Sequences to Play an External MIDI Instrument

MIDI sequences are a great way to add an external MIDI Instrument to your blackbox song. These sequences do not trigger any sounds within the blackbox. They only send MIDI Notes out. A MIDI sequence can also be used to play MIDI notes through the blackbox even without a recorded sequence so you can experiment before you are ready to record the sequence.

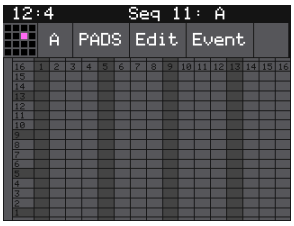
You can enter notes into a MIDI sequence in much the same way as you would for a Keys sequence.

Note:

- It's easier to record sequences when Song Mode is off.

To Setup a MIDI Sequence and Add Notes via the Touchscreen

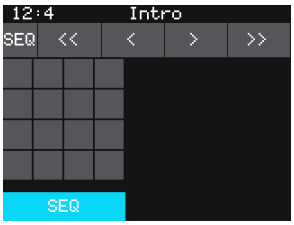
1. Connect your MIDI instrument to the blackbox MIDI TRS Output jack and configure it to use the desired MIDI channel.
2. Push **SEQS** to open the Sequences page and select an empty sequence.
3. Push **INFO** to open the Sequence Piano Roll.
4. In the top left corner, next to the Sequence Selector Grid and Pattern selector, touch the Sequence Mode selector (PADS/KEYS/MIDI), then select MIDI from the pop-up.
5. Push **INFO** again to get to the Sequence Parameters page, then touch Seq at the bottom left.
6. Set the MIDI Out parameter to match the MIDI Channel used by the MIDI Instrument.
7. Push **BACK** to return to the Piano Roll screen.
8. Touch the piano roll to add notes. Remember that you can use pinch and swipe gestures to zoom and move around the sequence.
9. Follow the usual steps to use knobs to adjust note length, move notes up and down, and change the velocity and probability of individual notes.
10. Push **PLAY** and the sequence will send the entered notes to the MIDI device via the MIDI Out channel selected above.



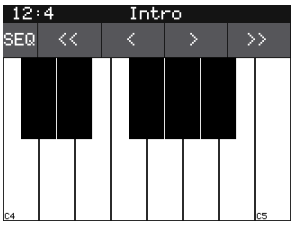
Sequencer

To Record a MIDI Sequence Using the Keys Screen

1. Select the MIDI sequence you want to record into.
2. Push the **KEYS** button to open the Keys Screen.
3. Touch the pad selector grid in the top left corner.
4. Touch the SEQ button at the bottom of the pad selector overlay screen. The Keys screen is now in SEQ mode. Notes played and recorded here will now be sent to the selected sequence. If that sequence is a MIDI sequence, the notes will be sent through to the MIDI Out channel selected for that sequence. If it's a Keys sequence, the notes will be recorded into the sequence but will only be sent to the MIDI Out channel for the sequence during playback.



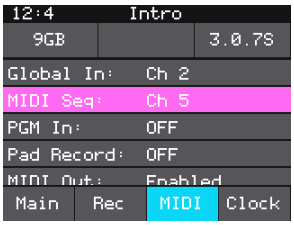
Keys - Pad/Mode Selector



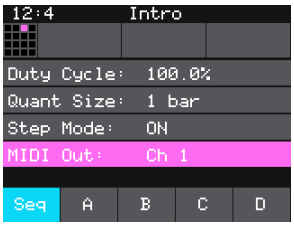
Keys in SEQ Mode

To Record a MIDI Sequence Using an External MIDI Controller

1. Connect a MIDI controller to the TRS MIDI In port or the USB Device port. Set the controller to send MIDI out on the desired channel. Let's call this channel A.
2. Connect a MIDI instrument to the TRS MIDI Out port or the USB Device port. Set the instrument to receive MIDI notes on the desired output channel. Let's call this channel B.
3. Tell blackbox to send the notes received on MIDI channel A to the selected sequence:
   - Push the **TOOLS** button and then touch the MIDI tab.
   - Set the value of the MIDI Seq parameter to MIDI channel A.
4. Push **SEQS** and select which sequence you'd like to record into. It needs to be highlighted (pink) and selected for playback (white border).
5. Press the **INFO** button to access the sequence. Select the pattern (A–D) to record into, then select MIDI Mode.
6. Push **INFO** again to access the Sequence parameters, then touch the Seq tab. Set the MIDI Out parameter to MIDI channel B.
7. Push **BACK** to return to the sequence.
8. Play some notes on the MIDI controller using the MIDI Seq channel. You will hear the notes on the connected MIDI instrument.
9. Press **REC** + **PLAY** to start recording. The sequence will capture notes as you play. The notes will also be sent out to the MIDI channel assigned to the sequence.



Tools - MIDI Page



Sequence Parameters Page