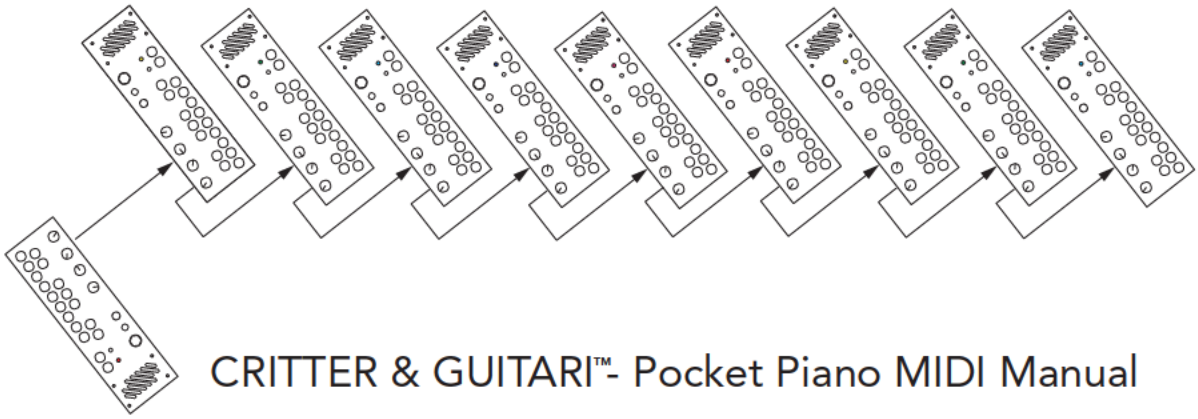
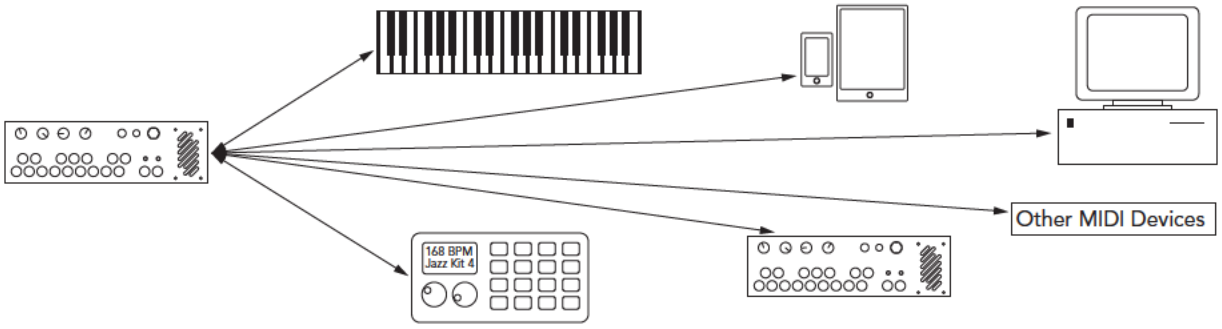


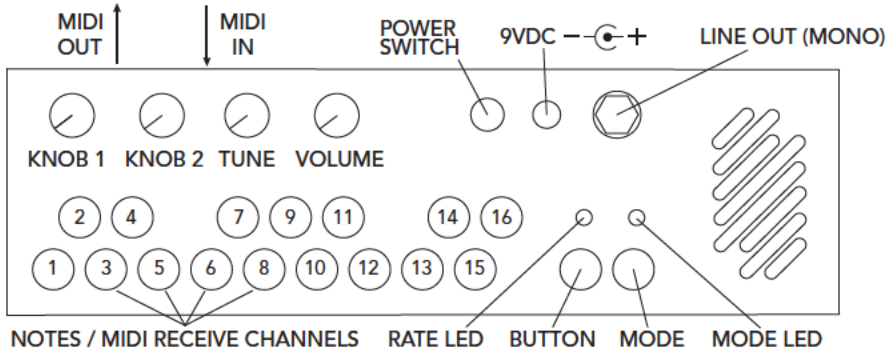
CRITTER & GUITARI™- Pocket Piano MIDI Manual

Updated October 23 2011

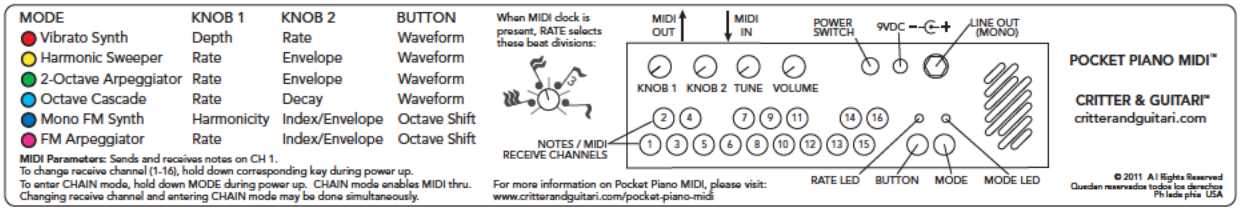
The Critter & Guitari Pocket Piano MIDI has the same modes, wooden keys, and enclosure of our original Pocket Piano but has the added functionality of being able to interact with many other MIDI devices: drum machines, sequencers, computers, synthesizers, and other Pocket Piano MIDIs. It can act both as a sound module and as a controller as it can send and receive MIDI note messages. It latches and synchronizes automatically to MIDI clock, and it can even be used as a 'MIDI effect' where incoming note messages get filtered by one of the Pocket Piano's four arpeggiating modes.



This is the layout for the control surface of the Pocket Piano MIDI:



The reference sticker on the back of the Pocket Piano MIDI looks like this:



MODE	KNOB 1	KNOB 2	BUTTON
Vibrato Synth	Depth	Rate	Waveform
Harmonic Sweeper	Rate	Envelope	Waveform
2-Octave Arpeggiator	Rate	Envelope	Waveform
Octave Cascade	Rate	Decay	Waveform
Mono FM Synth	Harmonicity	Index/Envelope	Octave Shift
FM Arpeggiator	Rate	Index/Envelope	Octave Shift

MIDI Parameters: Sends and receives notes on CH 1.
To change receive channel (1-16), hold down corresponding key during power up.
To enter CHAIN mode, hold down MODE during power up. CHAIN mode enables MIDI thru.
Changing receive channel and entering CHAIN mode may be done simultaneously.

For more information on Pocket Piano MIDI, please visit:
www.critterandguitari.com/pocket-piano-midi

MIDI Clock

Many synthesizers, drum machines, and sequencers use MIDI clock to synchronize events. MIDI clock messages occur at 24 pulses or ticks per quarter note. The Pocket Piano receives and sends these MIDI clock messages. If no MIDI input is connected, the Pocket Piano will use its internal MIDI clock. In arpeggiating modes (🟡🟢🔵🔴), the internal MIDI clock is sent via the MIDI OUT jack for syncing other devices.

If a MIDI input is connected, and there is MIDI clock present, the Pocket Piano will latch onto that clock and disable its internal clock. Any MIDI clock received is passed directly thru to the MIDI output for syncing other devices. In the arpeggiating modes (🟡🟢🔵🔴), the Rate knob is then used to select one of four divisions of the beat: thirty-second notes, sixteenth notes, eighth note triplets, and eighth notes from left to right like this:

...And affects the Rate of these modes:

MODE	KNOB 1	KNOB 2
Vibrato Synth	Depth	Rate
Harmonic Sweeper	Rate	Envelope
2-Octave Arpeggiator	Rate	Envelope
Octave Cascade	Rate	Decay
Mono FM Synth	Harmonicity	Index/Envelope
FM Arpeggiator	Rate	Index/Envelope

MIDI Receive Channel Select

The Pocket Piano MIDI responds to note messages on Channel 1 by default. To specify a different receive channel other than CH 1, hold down one of the 16 keys while turning the piano on. The lowest note on the keyboard is CH 1, the highest note is CH 16. Please see the control surface diagram above for more information about the MIDI channel assigned to each key.

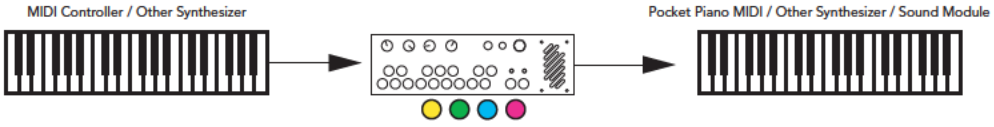
Note: The Pocket Piano will return to the default behavior of receiving CH 1 if turned off and no other key is held down during power up.

Two Settings for Sending & Receiving MIDI Notes

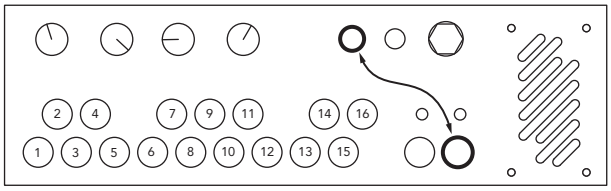
The Pocket Piano MIDI features two send/receive settings, BASIC and CHAIN, to control how it sends and receives MIDI note messages. The BASIC mode is the default, and the CHAIN mode is set by holding down the Mode key while turning the device on.

BASIC (*default*, on power up)
Receiving: The Pocket Piano responds to MIDI notes coming in on selected channel (CH 1 by default).
Sending: The piano sends out MIDI of the notes that it is playing. If your Pocket Piano is the first instrument in your setup, it will send the notes you are pressing. The Pocket Piano will send any MIDI notes it receives from other devices.

Notes on Arpeggiator modes: In BASIC Mode, the arpeggiated modes send out the arpeggiated notes. For example, a Pocket Piano set to the Green Two-Octave Arpeggiator (🟢) mode and receiving a sole MIDI note will play that note, then one an octave higher, and send out MIDI for *both* notes played. So on an arpeggiating mode, the Pocket Piano acts as a 'MIDI effect' like in this setup: controller keyboard -> pocket piano in an arpeggio mode -> some other sound module. Hold down a chord on the controller keyboard and it comes out of the sound module arpeggiated.



CHAIN -- This setting is useful for chaining many Pocket Pianos together to play the MIDI stream in different ways, especially if some of the Pianos were set to an arpeggiating mode and some were not. To use the chain setting, hold down the MODE key (right-most key) while turning it on. The MODE LED will flash white to indicate that CHAIN mode has been entered.



CHAIN mode can also take advantage of selecting Channels 1-16 if one of those keys is held down during power up along with the MODE key.
Receiving: The Pocket Piano responds to MIDI notes coming in on selected channel (CH 1 by default).
Sending: It also passes all MIDI received messages straight to the output. It responds to notes on the selected channel.

Note on arpeggiator modes in CHAIN setting: The piano *does not* send arpeggiated notes. For example, a Pocket Piano MIDI set to the Two-Octave Arpeggiator (●) mode and receiving a sole MIDI note will play that note, then one an octave higher, and only send MIDI for the sole note it received.

There is no reason you cannot string multiple Pocket Piano MIDIs together in BASIC Mode. We have experimented with this. If you have more than one Pocket Piano MIDI on arpeggio settings in BASIC mode, the output can get a little crazy, as the notes from one arpeggio get sent out to be arpeggiated *again* by the next piano, leading to some complex structures.

The Fun Part: Using Multiple Pocket Piano MIDIs Together!

The Pocket Piano MIDI is great for experimenting. We're hoping that you will find crazy, fun ways of controlling the sound of more than one in a chain. Here are some suggestions to help you get started:

Put them all on the same mode and adjust the TUNE knob to harmonize (or de-harmonize) them. For example, tuning each one a 3rd or a 5th above the previous one in the chain. This is especially good for making organ sounds using the Vibrato Synth and Mono FM Synth modes (● ●). This also works if they are in different modes.

Put them in the same mode but change each one to a different waveform using the BUTTON.

Put each Pocket Piano MIDI on a different arpeggiator mode for arpeggiating madness!

Put each Pocket Piano MIDI on the same arpeggiating mode with each set to a different division of the beat for rhythm overlays.

Thanks for being a part of Pocket Piano MIDI and we hope you have fun! Feel free to let us know how you use it - we are always curious! Click on the links below to get in touch with us:

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