MIDI Features and Controls

Library of MIDI commands and how to program your Lion Distortion

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How to Connect

Midi communication to the Lion conforms to the specification for TRS to Midi adapters issued by the Midi Association. So what does this mean for me? In order to communicate via Midi you will need either a 5 pin to 1/4" TRS adapter cable that is wired to the TRS specification (link to a compatible cable found here) or if you wish to make your own patch cables, a link to the wiring diagram and the midi specification can be found here. You can also use a midi box that converts 5 pin Midi to multiple TRS patch cable connections and will need to conform to the TRS specification (currently only the Midi Box 4 by Disaster Area Designs), or a compatible Midi controller with TRS midi output's like the Futurist by Matthews Effects or various controllers by Disaster Area Designs and MorningStar Engineering.

Changing the MIDI Channel

From the factory the Lion is set to receive Midi messages on Midi channel 1, however this can be changed upon powering up the pedal. After applying power to the Lion, hold down the Preset switch while the pedal is in startup mode (Volume & High Cut knobs are white and the Bypass and Preset LED's are flashing). While continuing to hold down on the Preset switch, the Bypass LED will flash the number of times equivalent to the Midi channel (set to 1 from the factory) and then will have a 2 second pause before flashing again. Simply press the Bypass switch to increment the Midi channel by 1, press as many times necessary to change to the correct Midi number. The numbers available on the Lion are channels 1 thru 16, once you've reached number 16 the next press will start over again at number 1. Once you have the right number selected, just release the Preset switch to save this setting into permanent memory.

Tip: MIDI channel setup uses the Preset switch (hold) and the Bypass LED (blinks 1–16). Lead Boost level setup is a different menu — it uses the Bypass switch (hold) and the Preset LED (blinks 1–4). If the value wraps back to 1 after 4, you’re in Lead Boost, not MIDI channel. When you release Preset to save the channel, make sure you’re not also holding Bypass, or you may enter the Lead Boost menu right after saving.

Saving Presets via MIDI

You have two options for creating presets. The first option is to use a "smart" midi controller that can send multiple simultaneous midi messages. Just send individual CC messages to turn the Bypass switch on, select the algorithm, and set the values for each knob.

The second option is to use our revolutionary CC Snapshot feature. While in Live Mode, select your desired algorithm and then set all of the knobs to their desired positions. From there just send midi CC #28 with any Value from 3 thru 124. The pedal will then take a snapshot of its algorithm and knob positions, after that the knobs will flash green letting you know the preset has been saved into permanent memory. To recall this preset, just send a PC message with the same number used for the Value when sending CC #28.

Example: send CC #28 Value 10 to save a preset in the 10th slot. Send PC #10 to recall the new preset.

The Lion can save 100 onboard presets (0 thru 99).

Program Change Messages

Receiving a Program Change on the Lion’s MIDI channel always turns the pedal on and loads that preset. A PC does not turn the pedal off. To turn Bypass off over MIDI, send CC #23 with a value of 0–63 (see Control Change Messages). If a MIDI controller “preset” or bank change turns the Lion on unexpectedly, check whether that slot is sending a Program Change even when no CC messages are listed.

- PC #0 - Recalls the first preset (UV)
- PC #1 - Recalls the second preset (Red)
- PC #2 - Recalls the third preset (Green)
- PC #3 - 124 Recalls the preset created by CC Snapshot (Blue)
    - In this mode all of the LED's will be blue and the knobs will be active in case you need to make changes on the fly. Since every preset 3-124 will be the same color, it may be hard to remember what's been saved to each preset location. No worries, if you move the knobs away from their original position, the color of the LED's will change and when moved back to the saved preset location the LED's light up blue again. For the Gain & Low Cut knobs (that don't have an illuminated knob) the Preset and Bypass LED's will flash when moved away from the saved position and return to full solid when you navigate back to the saved preset location.

Control Change Messages

Receiving CC messages will control the individual controls, knobs, and switches of the Lion

- CC #19 with any value of 1 thru 8 controls the Volume knob. 1 is the equivalent of having the knob turned completely counter-clockwise and 8 is like having the knob turned completely clockwise.
- CC #20 with any value of 1 thru 8 controls the Gain knob. 1 is the equivalent of having the knob turned completely counter-clockwise and 8 is like having the knob turned completely clockwise.
- CC #21 with any value of 1 thru 8 controls the Low Cut knob
- CC #22 with any value of 1 thru 8 controls the High Cut knob
- CC #23
    - Any value between 0 & 63 turns the Bypass switch off
    - Any value between 64 & 127 turns the Bypass switch on

- CC #24
    - Any value between 0 & 63 turns the Preset switch off
    - Any value between 64 & 127 turns the Preset switch on

- CC #25 any value between 0 & 127 increments the Preset number
- CC #26 any value between 0 & 127 decrements the Preset number
- CC #27
    - Any value between 0 & 42 activates the Cyan circuit
    - Any value between 43 & 85 activates the White circuit
    - Any value between 86 & 127 activates the Yellow circuit

- CC #28 any value between 3 & 124 activates CC Snapshot mode
    - This takes a snapshot of your current settings and stores it permanent memory at the appropriate preset location. An example would be to send CC #28 Value 3, this stores a preset in the 3rd slot and can be recalled anytime by sending PC #3

- CC #29
    - Any value between 0 & 63 turns off the Lead Boost
    - Any value between 64 & 127 turns on the Lead Boost
      (you can also exit the Lead Boost with the foot switches as well)