Sequentix MIDIBass 303

The MIDIBass 303 MIDI retrofit for the TB303 has a number of configuration settings that can be changed by System Exclusive message, and are held in non-volatile EEPROM memory.

The settings are:

Setting Name	SysEx Setting Number	Description
MIDI Receive Channel	0x00	The MIDI channel number on which the 303 synthesizer section will respond to incoming notes. Default is 1. Value in sysex string should be (channel - 1)
MIDI Transmit Channel	0x01	The MIDI channel number on which notes from the 303 sequencer will be transmitted. Default is 1. Value in sysex string should be (channel - 1)
Local	0x02	The default local status - i.e. whether the 303 sequencer will drive the 303 synth. With local off, the 303 sequencer can be used to drive an external synth, while an external MIDI device drives the 303 synth. MIDIBass 303 also responds to the standard MIDI 'local on/off' controller messages on the receive channel, but the default setting will be restored at power-on. Default is on. Value in sysex string should be 0 for OFF, any other value for ON.
Note Receive Enable	0x03	Enables MIDI note reception. Default is on. Value in sysex string should be 0 for OFF, any other value for ON.
Note Transmit Enable	0x04	Enables MIDI note transmission. Default is on. Value in sysex string should be 0 for OFF, any other value for ON.
Sync Out	0x05	Enables transmission of MIDI clock from the 303 sequencer timebase. Default is on. Value in sysex string should be 0 for OFF, any other value for ON.
Sync In	0x06	Enables reception of incoming MIDI clock, which automatically over-rides the internal timebase if the 303 sequencer is not already running. Default is on. Value in sysex string should be 0 for OFF, any other value for ON.
Sync Thru	0x07	Enables soft-thru of MIDI clock received while running from an external MIDI clock source, via the MIDI output. Default is off. Value in sysex string should be 0 for OFF, any other value for ON.
MIDI Note Offset	0x08	This option specifies the MIDI note number that will trigger the lowest note in the 303 synth's range, and will be transmitted for the lowest C that can be entered in a sequencer pattern. The 303 internal CV generation has 6 bit resolution, giving a theoretical range of 64 notes, however the lowest part of this range is not used by the 303 as it becomes non-linear. The available range is 53 notes - just over 4 octaves.

		Default value is 36. Value in sysex string should be in the range 0 to 75 (0 to 0x4B).
Normal Out Velocity	0x09	This option specifies the velocity value that will be sent for normal (non-accented) notes transmitted from the 303 sequencer. Default value is 63. Value in the sysex string should be in the range 1 to 127 (1 to 0x7F)
Accent Out Velocity	0x0A	This option specifies the velocity value that will be sent for accented notes transmitted from the 303 sequencer. Default value is 127. Value in the sysex string should be in the range 1 to 127 (1 to 0x7F)
Accent In Threshold	0x0B	This specifies the threshold velocity value above which incoming notes will be treated as being accented. Default value is 100. Value in the sysex string should be in the range 1 to 126 (1 to 0x7E)

The format of the sysex message is as follows:

```
F0   -   Sysex header
41   -   Roland manufacturer ID
03
00
03   -   Device identification
cc   -   Setting number
vv   -   Value
F7   -   Sysex terminator
```

SysEx Examples

To set the MIDI Note Offset to 60 decimal (0x3C hex), the command would be:

```
F0, 41, 03, 00, 03, 08, 3C, F7
```

To set the receive MIDI channel to channel 4, the command would be:

```
F0, 41, 03, 00, 03, 00, 03, F7
```

Note the value of **03** means MIDI channel **4**

MIDI Continuous Controllers

The MIDIBass 303 also responds to three different MIDI CC messages.

These are:

Name	MIDI CC Number	Description
accent over-ride (expression)	11 (0xB)	There are three modes for the accent behaviour. **auto** mode - accent is enabled only for notes above the accent velocity threshold (standard TB303 behaviour) **off** mode - accent is never active. **on** mode- accent is always active. Send cc 11 with a value of 0 for **auto** (default) Send cc 11 with a value of 64 for **off** Send cc 11 with a value of 127 for **on**
slide over-ride (portamento)	65 (0x41)	There are three modes for the slide behaviour. **auto** mode - slide is enabled for notes played before a previous note is released (standard TB303 behaviour) **off** mode - slide is never active. **on** mode- slide is always active. Send cc 65 with a value of 0 for **auto** (default) Send cc 65 with a value of 64 for **off** Send cc 65 with a value of 127 for **on**
all notes off	123 (0x7B)	This controller clears any held notes. **N.B.** all notes off also resets accent over-ride and slide over-ride to their default **auto** settings.

CC Examples

For a TM3030 set to receive on default channel 1:

To force accent on all notes, send controller message: `B0, 0B, 7F`

To disable accent on all notes, send controller message: `B0, 0B, 00`

To enable accent notes over the velocity threshold,
send controller message: `B0, 0B, 40`

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