



JAZBase03



User's Manual

Summary

Summary

02

Introduction

05

Control Panel

- Front Panel **View**
- Back Panel **View**

06

06

06

Connecting the unit

- Power supply
- Audio connections
- Midi connections

08

08

08

09

Structural overview

- Hierarchy
- Edit mode
- Store hierarchy

10

10

11

12

Master Mode

13

- Selecting kits 13
- Instrument type 14
- Play button function 14
- Name edit 14
- Contrast 16
- Memory protect 16
- LFO speed 17
- Initialising kits 17
- Copying kits 19

Midi Mode

21

- Receive Channel 21
- Transmit Channel 21
- Bulk Dump 22
- Bulk Load 23
- Snap Shot send 24
- Transmit Controller 24

Edit Mode

25

- Editing kits and instruments 25
- The display in edit mode 25
- Instrument type 26
- Instrument variations 27

Editing sound parameters 28

Kick	- Tune	28
	- Pitch	28
	- Decay	29
	- Harmonics	29
	- Pulse	29
	- Noise	30
	- Attack	30
	- EQ	31
	- Level	31
	- Velocity	31
	- Scale	32
	- Initializing	32
Snare	- Tune	33
	- Snappy	33
	- Decay	33
	- Detune	33
	- Noise Tune	34
	- Level	34
	- Velocity	34
	- Initialisation	35
Low Tom	- Tune	36
	- Decay	36
	- Level	36
	- Velocity	37
	- Initialization	37

High Tom	- Tune	38
	- Decay	38
	- Level	38
	- Velocity	39
	- Initialization	39

Percussion instruments 40

	- About the sample based	40
	- The volume envelope	41
Hi Hat	- Tune	42
	- Closed HH Attack	42
	- Closed HH Peaktime	42
	- Closed HH Decay	42
	- Open HH Attack	43
	- Open HH Peaktime	43
	- Open HH Decay	43
	- Open HH Start Point	43
	- HH Sample select	44
	- Reverse play	44
	- Source	44
	- High Pass Filter Cutoff	45
	- Low Pass Filter Cutoff	45
	- Filter Resonance	45
	- Level	46
	- Velocity	46
	- Initialization	46

The parameters of	47
Clap, Rim, Crash und Ride	47
- Tune	47
- Attack	47
- Peak Time	48
- Decay	48
- Start Point	48
- Reverse play	48
- Sample Select	49
- Level	49
- Velocity	50
- Initialization	50

The two LFOs	51
- LFO 1 Waveform	51
- LFO 1 Destination	52
- LFO 1 Intensity	52
- LFO 1 Rate	53
- LFO 2 Waveform	53
- LFO 2 Destination	53
- LFO 2 Intensity	54
- LFO 2 Rate	54
- Sync of LFO 1+2	54

Quitting the edit menu - to store	
- automatic storage request	55

Midi implementation	57
- Note on messages	57
- Midi controller data	58 c.
- System exclusive data	61
- Reset	61
- Software version	61
Technical data	62
Service, updates, tips	63
Feedback	63

This manual was created for our clients and users of the JaZBase03 by JoMoX GmbH, Berlin.
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 Thanks.

Introduction

The JaZBase03 is more than just another drum machine or sound module. It is capable of bridging the gap that separates purely percussive i.e. noisy, non tonal sounds from tuned tonal sounds.

Bass Drum, Snare Drum, LoTom and HiTom of the JaZBase03 are generated fully analog; this means that the instruments are not based on sampled sounds but have true analog and discreet sound circuitry.

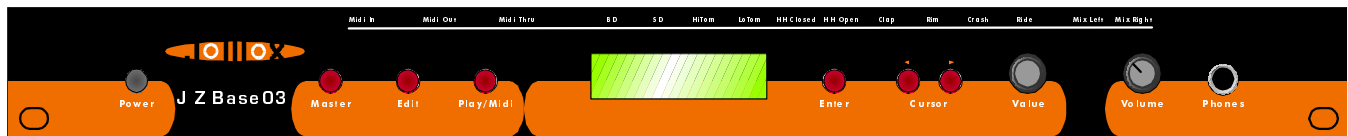
The HiHat and the percussion sound sets are based on samples that have an awesome sonic performance due to their 8-bit-quantisation and the true analog envelopes. So the JaZBase03 is not another adaption of a familiar drumcomputer or other electronic based sound devices. It features a wide selection of various 'acoustic' percussion sounds of partly pretty exotic origin. The level envelope of the samples is treated by an envelope generator that makes the sounds much more concise. A real analog high and lowpass filter with resonance gets you even more sound variations.

In order to preserve the "analogness" of sound generation as well as of sound control, all parameters are controlled by specially adapted and discreetly built up digital-to-analog converters. This measure requires extra hardware, but enables practically immediate response to control changes. Great care has been taken to preserve the analog feel of control voltages in the JaZBase03's MIDI control of sound parameters.

Since all sound parameters can be varied in a very wide range, the sonic spectrum is not limited to a 'jazzy' context but furthermore covers a wide range of drumsounds up to very unique sound effects.

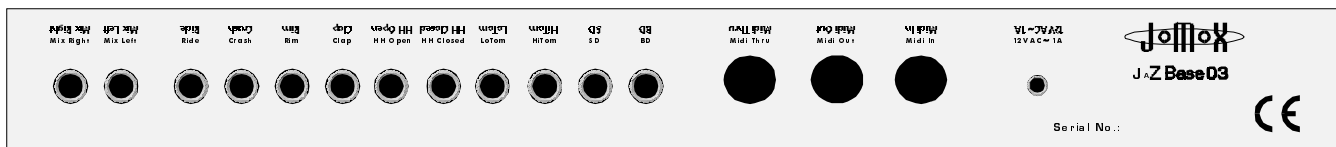
Control Panel

Front Panel View



- Power** Switches the JaZBase03 on and off.
- Master** selects the 'master' operating mode.
- Edit** selects the 'edit' operating mode.
- Play/Midi** triggers instruments or selects the 'midi' menu.
- Display** 2x16 character backlit display.
- Enter** to confirm certain settings.
- Cursor <-** The left cursor button moves the cursor to the left of the display.
- Cursor ->** The right cursor button moves moves the cursor to the right of the display.
- Value** The 'value' knob changes the value of the parameter shown in the display.
- Volume** The 'Phones Volume' knob controls nothing but the volume level of the headphone output.
- Phones** Stereo headphones can be connected with a 1/4 inch stereo plug.

Back Panel View



Mix/L Mix/R

individual outputs

Midi Thru, Out, In

12 V AC in

12 V AC in

Power supply input socket. **USE ONLY WITH ORIGINAL AC/AC POWER SUPPLY ! OTHERWISE THE UNIT MAY GET SERIOUSLY DAMAGED!**

MIDI IN, OUT and THRU

Midi connection sockets

BD, SD, LoTom, HiTom, cl.HH, op.HH, Clap, Rim, Crash, Ride

Individual outputs for each instrument

Mix

Stereo audio output

Connecting the unit

Before making any connections, switch the JaZBase03 and all other hooked up devices off.

Power Supply

Connect the power supply unit that was shipped with the JaZBase03 to a power outlet and connect it to the 12 V AC IN socket on the JaZBase03. If, for any reason, you are not going to use the original power adapter, make sure you are using a 12 V AC power supply unit with at least 1.5 A. **NEVER use an AC/DC adapter, because this could damage the JaZBase03.**

Audio Connections

Switch off the JaZBase03 and the mixer/amplifier you want to connect it to.

The JaZBase03 has a Stereo-MIX output which outputs the audio signal of all instruments as long as there is no cable plugged into one of the individual outputs.

The left and right channel of the Stereo-Mix signal is output from the MIX/L and MIX/R jack sockets.

If you want to connect the JaZBase03 to a mono mixer channel, use the MIX/L output.

The JaZBase03 has ten individual outputs for bass drum, snare drum, hi hat etc. As soon as a cable is plugged into an individual output, that instrument will no longer be routed through the Stereo MIX output.

Connect the audio outputs you want to use to your mixer with ¼" mono jack plug cables

The stereo panning of the Stereo MIX output is fixed by hardware and cannot be edited. If you want to create your individual panning, please use the instrument outputs. The JaZBase03 has a ¼" stereo headphone output jack socket on the front panel, which outputs the stereo mix.

MIDI connections

MIDI IN

The JaZBase03 can be controlled by various MIDI devices such as master keyboards, computers and sequencers via the MIDI in port.

Connect the JaZBase03's MIDI IN port with the MIDI OUT port of the controlling device.

Please note: All incoming MIDI messages have to be processed by the JaZBase03, even if only to check their MIDI channel., which will cost a bit of computing time. This means that the JaZBase03 might be unnecessarily processing data, even if nothing appears to be happening. If you are not using a MIDI data filter, the amount of data can be considerable. If you are able to filter MIDI data such as poly pressure, MIDI time code, MMC and aftertouch controllers, we advise you do to so, since this type of data is not used by the JaZBase03.

MIDI OUT

The JaZBase03 can transmit data to devices such as computers and sequencers via its MIDI OUT port. Connect the JaZBase03's MIDI OUT port to the receiving device's MIDI IN port.

MIDI THRU

MIDI data that the JaZBase03 receives at its MIDI IN port is passed directly through to the MIDI THRU port. You can connect further MIDI devices via the MIDI THRU port.

Structural overview

JaZBase03

MASTER MODE

EDIT MODE

PLAY/MIDI MODE

to prelisten to the preset kits or their instruments as well as for following parameters:

to edit and create instruments

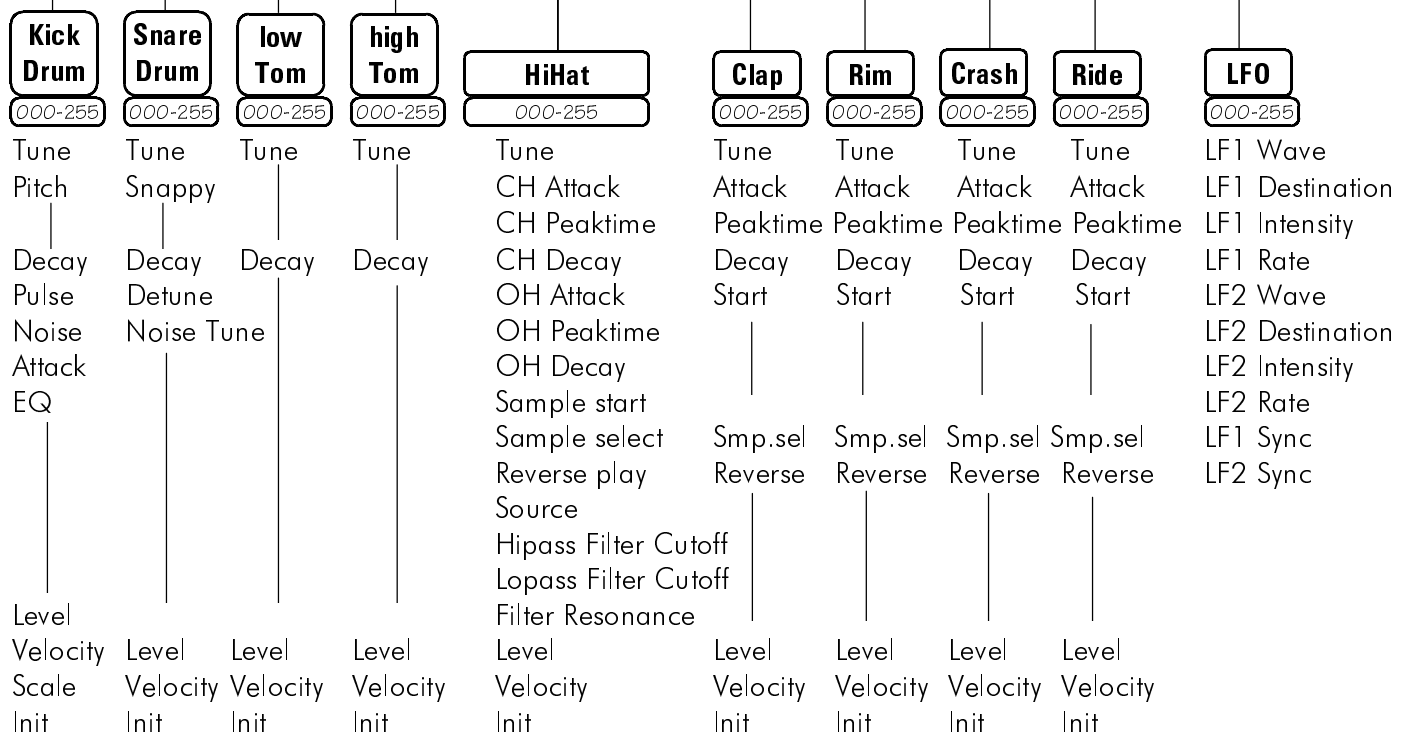
Play mode (Master menu: Play = ON)
...Play/Midi button = Trigger!
Midi mode (Master menu: Play = OFF)

With the cursor buttons you select the desired menu, with the knob you control the desired value, and with the flashing enter key you confirm.

Menu:	Value:
Play	ON/OFF
Name	GO?..
Contrast	040...150
Memory Protect	ON/OFF (per KIT)
BPM	001...255
Init (if MP= OFF)	GO?... (per KIT)
Copy (KIT to)	UP/Down...Y/N

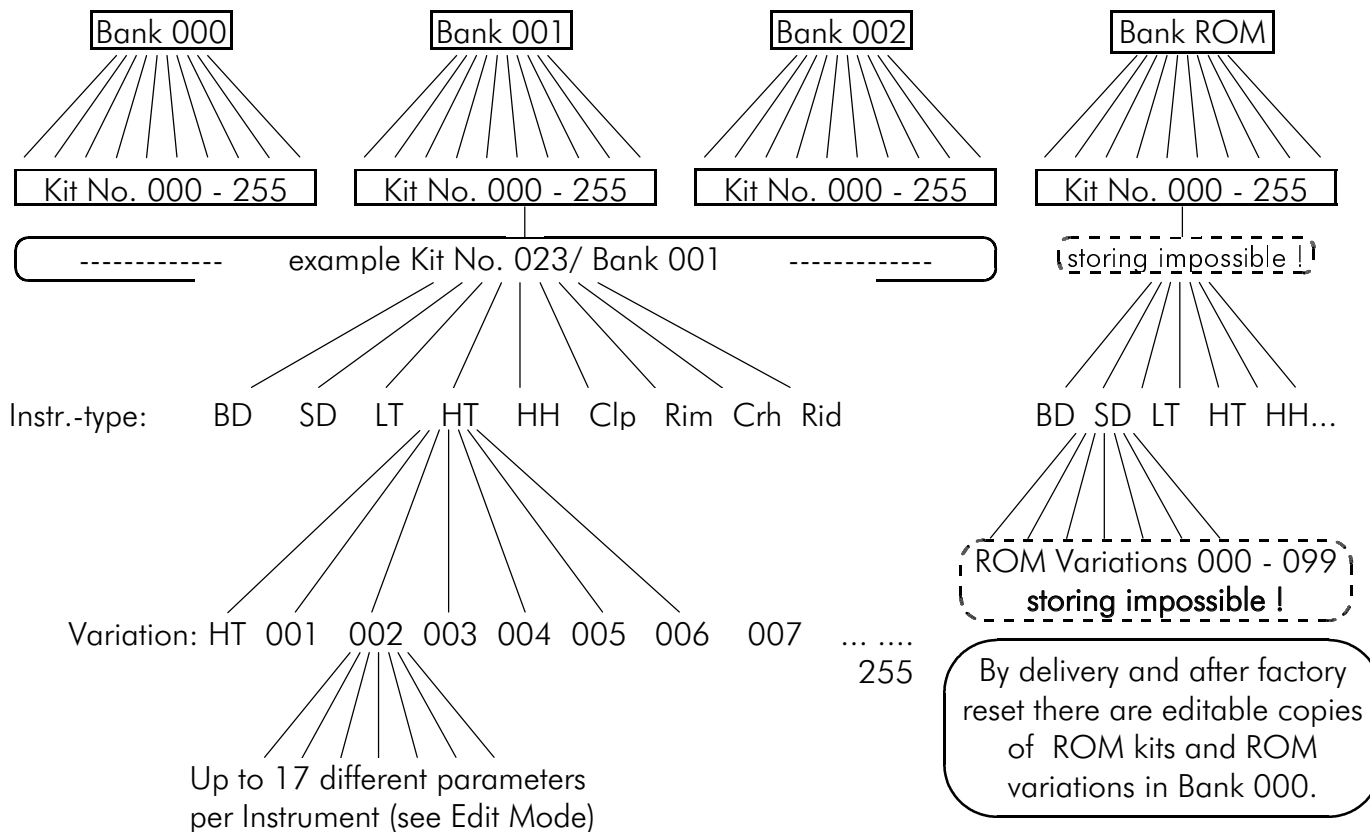
see table
EDIT MODE
next page

Menu:	Value:
Receive Channel	01...16
Transmit Channel	01...16
Bulk dump	GO?...
Bulk send	GO?...
Snap shot send	GO?...
MIDI thru	ON/OFF



(There is an automatic storage request for instruments and kits if any value has been changed. Storage is impossible if memory protect = ON)

Store Hierarchy



Master mode

In Master mode you can select drum kits, name drum kits and make various global settings.

Master mode is active by default and the Master button is lit after you power the JaZBase03 up.

If the Master button is not lit, press it to switch to Master mode and it will light up.

```
HomeBase Kick000  
KitNo000 Bank000
```

Selecting Kits

The upper line of the display shows the name of the currently active kit. Next to that, the currently active play instrument is displayed (see also Play ON/OFF).

The second line shows the corresponding kit number and bank number.

Select kits by turning the value knob. Kit names and numbers will change accordingly.

The bank number changes automatically, as soon as the kit number is higher than 255. In this case, the kit number will change to 000 and the bank number will increase by 1.

```
KickBase Kick001  
KitNo001 Bank000
```

Instrument type <Kick,Snar,LoTo...>

To select an instrument type, move the cursor one step to the right. If the play function is active (see also Play ON/OFF), the individual instruments of the selected kit can be selected with the value knob and triggered with the Play/Midi button. This way it is possible to audition kits without the use of a keyboard. The instrument numbers cannot be changed here, because they are already assigned to the kits (see also Edit Mode - instrument number).

```
Untitled Kick001
KitNo001 Bank000
```

Play button function <Play> <ON/OFF>

Press the right cursor button again to get to the next parameter of Master mode.

<ON> - The play function is active. In Master and Edit modes the Play/Midi button is used only to trigger the currently selected instrument.

<OFF> - The play function is disabled. The Play/Midi button now serves to select MIDI Mode.

```
Untitled Kick001
PlayON Name GO>
```

Name edit <Name> <GO>

Use Name edit to give a kit a name. After selecting this parameter, the ENTER button will start blinking. If you want to change the name in the display's upper left corner, hit the ENTER button.

```
Untitled Kick001
PlayON Name GO>
```

If you **do not** want to change the name, pressing the right cursor button again will take you to the next Master Mode parameter.

The cursor is now under the first character of the kit name. Use the value knob to set the desired character. Move to the next or previous character with the left and right cursor buttons. When you have finished naming the kit, hit enter to store your edit. JaZBase03 will confirm this by displaying „Drum Kit stored“. After this, the cursor will be back at the drum kit selection parameter.

```
Untitled Kick001
Drum kit  stored
```

The JaZBase03 will point out that the Memory Protect function is active by displaying „Memory Protect!“. The new name cannot be stored. After the storing process has been aborted, the cursor will be in the kit selection parameter. If you do not wish to change the kit name, use the cursor buttons to select a different Master mode parameter.

```
Untitled Kick001
Memory protect!
```

Contrast **<Contr>** **<030-110>**
Move the cursor to the contrast parameter. Here you can adjust the LCD display's contrast.

```
Untitled Kick001  
Contr065MemPrOFF
```

Memory Protect **<MemPr>** **<ON/OFF>**
Move the cursor to the Memory Protect parameter.

```
Untitled Kick001  
Contr065MemPrON
```

<ON> - The selected drum kit is protected. Changes in the kit name, its instruments settings and instrument names cannot be stored to memory. If another kit uses the same instrument numbers as the protected kit, sound parameter changes that affect those instrument numbers will not be taken over.

All changes made to non protected kits can only be stored as long as they do not affect protected kits. Protected kits can be identified by the high dot at the end of their kit name.

<OFF> - The selected kit is not memory protected. Please note that sound parameter changes of an instrument number affect all kits that use that instrument number!

Example: The kits numbered 000, 001 and 002 of bank 001 all use the kick drum instrument number 001 (instrument variation 001 of the instrument „kick“). If the sound parameters of e.g. Kick001 are changed, this will affect all the abovementioned kits! If, however, only one of these kits is memory protected, parameter changes of Kick001 cannot be stored to memory, even if these changes are made from a non-memory protected kit.

LFO Speed

<BPM>

<038-255>

Here you can adjust the speed of the two LFOs (modulators). LFO speed is given in beats per minute (BPM). So it is possible to adjust the LFO speed for every kit to fit the tempo of the current composition (see also „LFOs“ in Edit Mode).

```
Untitled Kick001
BPM  120Init G0>
```

Initialising Kits

<Init>

<GO>

As soon as this parameter is selected, the ENTER button will start flashing.

If you want to abort this function, press one of the cursor buttons to select a previous or the next Master Mode parameter. The ENTER button will then stop blinking.

```
Untitled Kick001
BPM  120Init G0>
```

Initialisation will assign a kit with the instrument numbers corresponding to its kit number. The kit „untitled“ stored in kit number 039, for example, will be assigned the instrument numbers 039. The kit will then consist of kick drum 039, snare 039, LoTom 039 etc...

It is, however, possible to assign any instrument number to a kit. Hit enter to initialize the selected kit.

The display will read „Are you sure? NO”.
Hit Enter to abort the initialization process.

```
Untitled Kick001
Are you sure?_NO
```

If you are sure that you want to initialize the kit,
turn the value knob until the display reads
„YES” instead of „NO”. Hit Enter to initialize the
selected kit.

```
Untitled Kick001
Are you sure?_YES
```

If the kit is memory protected, the display will read:
„Memory protect!”.

```
Untitled Kick001
Memory protect!
```

Copying kits <CpyTo> <000-255>

This function lets you copy kits with all the instruments used in that kit. The instrument variations of the source kit will then be stored under the target kit number. -

```
Untitled Kick001  
CpyToExampleA020
```

Example: You want to copy kit number 001, named „untitled“. This kit uses instrument numbers Kick 001, Snare 002, LoTo 010, HiTo 100, HiHat003, Rims 000, Clap 000, Crsh000, Ride000 and the LFO setting LFOs 000. he target is kit 020. All instruments will now be copied to their respective memory number 020. Kick001 is copied to Kick020, Snar002 is copied to Snar020, LoTo010 is copied to LoTo020 etc. All instruments having No. 20 before, will be overwritten (Kick020, Snare020, LoTo020 etc.), except they are used somewhere in a protected kit. In this case you should choose another target kit. Editing or copying ROM instruments or kits will not affect the initial sounds and kits in the ROM bank.

Use the value knob to select the target kit number. The target kits name will be displayed. While you are changing the target kit number, you can play the keyboard to audition the respective target kit instruments in order to be sure that you will not overwrite an important kit. Press the enter button to start the copy process. The display will read „Are you sure? NO“.

```
Untitled Kick001  
Are you sure?NO
```

Hit Enter to abort the copy process.
The display reads: Command aborted.

```
Untitled Kick001  
Command aborted
```

If you are sure you want to continue with the copying process, turn the value knob right until the display reads „YES” instead of „NO”. Hit Enter to copy the kit.

```
Untitled Kick001  
Are you sure?YES
```

The display reads: „Drum Kit stored”.

```
Untitled Kick001  
Drum kit stored
```

If the target kit is memory protected, the display will read „Memory protect!”.

```
Untitled  Kick001  
Memory protect!
```

MIDI Mode

In Midi mode you can edit parameters for Midi operation. Press the Play/Midi button to activate Midi mode. The Play/Midi button will light up and the cursor will be positioned on the first parameter of the Midi mode.

If the Play/Midi button does not light up, check the play parameter in Master mode.

Receive Channel <RcvCh> <001-016>

Here you can set the channel on which you want the JaZBase03 to receive Midi data.

```
RcvCh001TxmCh001  
BdumpG0>BloadG0>
```

Transmit Channel <TxmCh> <001-016>

Here you can set the channel on which you want the JaZBase03 to transmit Midi data.

```
RcvCh001TxmCh001  
BdumpG0>BloadG0>
```

Bulk Dump <Bdump> <GO>

This function is used to dump the complete memory content of the JaZBase03 to an external Midi device. This device could be a computer, a sequencer, a Midi file player etc..- The JaZBase03's MIDI Out port should be connected to the receiving device's MIDI In port. As soon as the bulk dump function is selected, the Enter button will start blinking. *To abort the bulk dump function, press one of the cursor buttons to simply go to another Midi Mode function. The Enter button will then stop blinking.*

```
RcvCh001TxmCh001  
BdumpG0>BloadG0>
```

Set the receiving device to „receive ready“ and press the Enter button. While data transmission is in progress, the display will read „Busy“ After about 25 seconds the transmission will be completed.

```
RcvCh001TxmCh001  
BdumpBsyBloadG0>
```

After successful transmission the display will read „Fin“.

```
RcvCh001TxmCh001  
BdumpFinBloadG0>
```

Bulk Load

<Bload>

<GO>

After selecting the Bulk Load function, the Enter button will start blinking.

To abort the Bulk Load function, simply use the cursor buttons to select another Midi mode parameter. The Enter button will then stop blinking.

```
RcvCh001TxmCh001  
BdumpG0>BloadG0>
```

Press the Enter button to set the JaZBase03 to „receive ready“. The display will read „Rdy“. Start data transmission from the transmitting device (e.g. by starting the sequencer).

```
RcvCh001TxmCh001  
BdumpRdyBloadG0>
```

After successful data reception the display will read „Fin“ (finished).

```
RcvCh001TxmCh001  
BdumpG0>BloadFin
```

Snapshot Send **<SnapS>** **<ON/OFF>**

This function is used to transmit sound parameter data of the currently selected drum kit as MIDI controller data. In this way you can store a kit's sound settings along with the music data in your MIDI sequencer.

<ON> - When selecting a kit in Edit or Master mode the sound parameters of all of a kit's instruments will be transmitted as a complete set of Midi controllers. Set your sequencer to record mode and select the desired kit. Make sure the JaZBase03 is not receiving any Midi data (especially controller data!) at this time. The sequencer should now have recorded the settings of all nine instruments as controller data. (see also MIDI implementation chart). This data can now be sent back to the JaZBase03 simply by playing back the sequence. The currently active kit will adopt the corresponding sound settings. This is also very useful to update external Midi editors to the internal values of a kit.

<OFF> - The JaZBase03 will not transmit any controller data when a kit is edited.

Transmit Controller **<TxCon>** **<ON/OFF>**

With this parameter you decide whether controller data is to be sent or not on editing sound parameters with the value knob.

<ON> - While editing sound parameters, corresponding controller data will be sent to the Midi out socket.

<OFF> - The AirBase doesn't send any controller data.

RcvCh001TxmCh001
SnapSON TxCtrOFF

RcvCh001TxmCh001
SnapSOFFTxCtrOFF

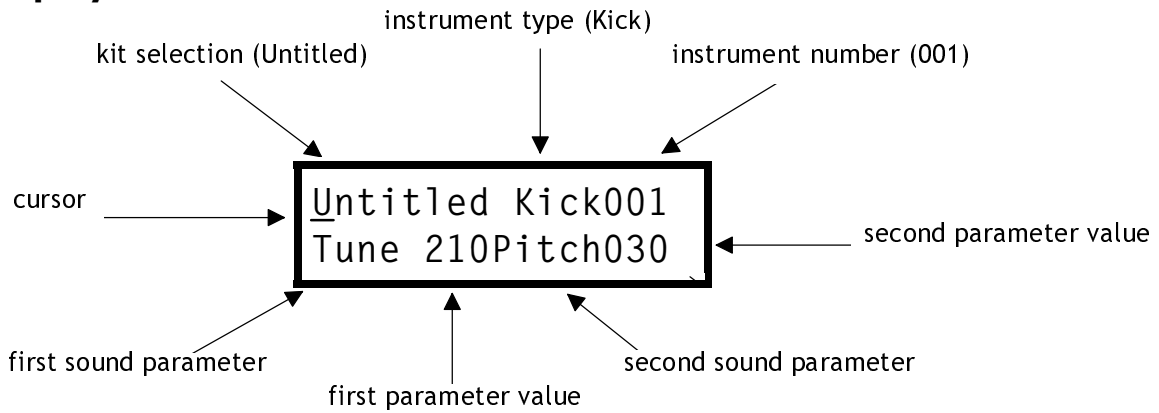
RcvCh001TxmCh001
SnapSON TxCtrON

EDIT mode

Editing kits and instruments

In Edit mode you can create new drum kits from existing variations of the various instruments and edit each instruments sound parameter individually. Press the Edit button to get into the edit menu. The Edit button will light up.

The display in Edit mode:



The top line shows the name of the kit being edited. After pressing the Edit button, the cursor will be positioned under the kit selection. In Edit mode, only the kit name is displayed, not the kit number. Turn the value knob to select a kit you want to edit.

While you are editing, you can play the selected kit by playing on a keyboard or by sending a pre-programmed sequence to the JaZBase03.

Note: If you want to make changes on an existing kit without replacing it with the edited version, you can copy this kit to a free memory position before (see also Master Mode - editing the kit name).

Instrument type

Once you have selected a kit, you can select the instrument you want to edit. Press the right cursor button to reach the instrument selection parameter. The cursor is now under the instrument type parameter. Turn the value knob to select an instrument type.

Untitled Kick001
Tune 238Pitch030

The following instrument types can be selected.

Instrument type	Display abbreviation
Kick Drum	Kick
Snare Drum	Snar
Low Tom	LoTo
High Tom	HiTo
Hi Hat	HiHa

Instrument type	Display abbreviation
Clap	Clap
Rimshot	Rims
Crash	Crsh
Ride	Ride
LFO 1 & LFO 2	LFOs

Instrument variations (Instrument number)

256 variations (000-255) of any instrument type (Kick, Snare, low Tom, high Tom, etc.) can be recalled and stored. Press the right cursor button to select a three digit instrument number.

The cursor is now positioned underneath the instrument number. Turn the value knob to select an instrument number/variation. Play the instrument from your keyboard while you recall different instrument numbers (variations). This way you can audition all the stored variations of the instrument. There are 100 factory preset variations for each instrument type. Pressing the left cursor button gets you back to the instrument type selection parameter. Simply by putting together preset instrument variations, you can quickly create new kits.

The instrument variations of the ROM (**R**ead **O**nly **M**emory) bank can be edited, but not stored. The JaZBase03 is shipped from the factory with a copy of the ROM bank in bank 000. The instrument variations are stored in instrument numbers 000-099. Check also the overview for the memory bank hierarchy!

Untitled Kick001
Tune 210Pitch030

Editing sound parameters

Kick drum parameters

- Tune <Tune> <000-255>

This parameter controls the intensity of the pitch bend. On a synthesizer, it would correspond to „pitch modulation intensity“ of a pitch envelope with attack set to 0 and the decay set to a fixed value controlling the pitch (oscillator frequency). A high value will give you the typical 909 „kick in the gut“ effect while a very low value will produce softer, 808-type kick and bass sounds.

```
Untitled Kick001  
Tune 238Pitch030
```

- Pitch <Pitch> <000-255>

This parameter controls the basic pitch of the kick drum. Sub bass sounds down to 25 Hz and relatively high tones can be achieved. This is not to be confused with the tune parameter! Caution: This parameter is called „Tune“ with all other instruments. Because of the popularity of the TR909 it is called „Pitch“ only for the kick drum.

```
Untitled Kick001  
Tune 238Pitch030
```

- **Decay** <**Decay**> <**000-255**>
Controls the kick drum's decay time. .

Untitled Kick001
Decay150Harmo000

- **Harmonics** <**Harmo**> <**000-255**>
Controls the harmonic spectrum of the VCO. The near sine-shape of the kick drum wave can be continuously formed into a parabolic wave form resulting in a harder, timpani-like sound which distinguishes it from simple distortion.

Untitled Kick001
Decay150Harmo000

- **Pulse** <**Pulse**> <**000-255**>
Controls the pure pulse-wave component of the kick drum's attack phase (see also attack parameters). Pulse is the pure square wave impulse that is routed to the attack VCA.

Untitled Kick001
Pulse032Noise032

- Noise **<Noise>** **<000-255>**

Controls the pure noise component of the kick drum's attack phase (see also attack parameters). Noise produces a clap-like sound in the attack phase, depending on the intensity. Note the settings of the „Attack“ and „EQ“ parameters. With a high EQ setting the noise component of the kick drum sound will hardly be audible.

```
Untitled Kick001  
Pulse032Noise032
```

- Attack **<Attac>** **<000-255>**

The following is important when it comes to understand how the attack component of the AirBase 99 kick drum sound works: The components 'pulse' and 'noise' are mixed and the intensity of the resulting mix is then controlled by the attack parameter. If a value of 000 is set here, changes in the pulse or noise settings will not be audible! Pulse and noise can be set to 000 respectively, which means that kick drums can be set to play completely without attack, with noise only or with pulse only.

```
Untitled Kick001  
Attac155EQ 000
```

- EQ **<EQ>** **<000-255>**

EQ smoothes the kick drum's output with a gently sloping filter. If set to 000, the filter will be completely open.

Note: Changes in the noise parameter are best heard when the filter is opened.

```
Untitled Kick001
Attac155EQ   000
```

- Level **<Level>** **<000-255>**

Controls the basic volume of the kick drum in the selected kit.

```
Untitled Kick001
Level1255VelocOFF
```

- Velocity **<Veloc>** **<ON/OFF>**

This parameter determines whether the volume of the kick drum is controlled by note on velocity or not.

<ON> - Note on velocity affects the kick drum volume.

<OFF> - The kick drum always plays at the volume level set in the „Level“ parameter. Incoming note on velocity is ignored.

```
Untitled Kick001
Level1255VelocOFF
```

- Scale **<Scale>** **<LIN/SEM>**

This parameter determines whether the „Pitch“ parameter affects the kick drum’s pitch linearly or in semitone steps.

<LIN> - Editing the pitch parameter will cause pitch to change linearly in 256 steps (Pitch000 - Pitch255).

```
Untitled Kick001
Scale_LINInit G0>
```

<SEM> - Editing the pitch parameter will cause pitch to change in semitone steps. Not all 256 steps can be set. The values increase in bigger steps, e.g.: Pitch044 - Pitch049 - Pitch054...

```
Untitled Kick001
Scale_SEMInit G0>
```

-Initializing **<Init>** **<ON/OFF>**

Initializing the parameters of the kick will cause its sound parameters to be set to values that more or less correspond to a „normal“ kick drum

<ON> - The kick drum is initialized, but not yet stored.

<OFF> - The kick drum remains unchanged.

```
Untitled Kick001
Init _OFF
```


Snare drum parameters

- **Tune** <Tune> <000-255>

Controls both of the snare drum's oscillators basic pitch.

```
Untitled Snar001  
Tune 142Snapp250
```

- **Snappy** <Snapp> <000-255>

Snappy is the snare drum's noise component and is essentially filtered noise.

```
Untitled Snar001  
Tune 142Snapp250
```

- **Decay** <Decay> <000-255>

Decay controls how long the snare's noise component takes to decay.

```
Untitled Snar001  
Decay228Detun000
```

- **Detune** <Detun> <000-255>

Detunes the snare's oscillators in respect to each other.

```
Untitled Snar001  
Decay228Detun000
```

- **Noise Tune** <NoiTu> <000-255>

The snare drum's noise filter can be tuned with this parameter. If noise is set to 000, it is switched off. In this case only the two oscillators will sound and various percussion instruments can be created, depending on the tuning. These instruments can sound similar to Rim Shot, Cow Bell or Tom Tom.

```
Untitled Snar001  
NoiTu_050Level1255
```

- **Level** <Level> <000-255>

Determines the snare drum volume level for the selected kit.

```
Untitled Snar001  
NoiTu050Level1255
```

- **Velocity** <Veloc> <ON/OFF>

This parameter determines whether the snare drum volume will be affected by incoming Midi note on velocity messages or not.

<ON> - The snare drum volume will be affected by Midi note on velocity messages.

<OFF> - The snare drum will always play at the volume set in the level parameter. Incoming Midi velocity messages are ignored.

```
Untitled Snar001  
Veloc_OFFInit OFF
```

- Initialization <Init> <ON/OFF>

Initializing the snare drum sets all parameters to default values that correspond more or less to the sound of a „normal“ snare drum.

<ON> - the snare drum is initialized, but not stored.

<OFF> - the snare drum remains unchanged.

```
Untitled Snar001
Init OFF
```

Low Tom parameters

- **Tune** <Tune> <000-255>

Tune determines the pitch of the low tom oscillator. The basic low tom pitch is lower than of the high tom.

```
Untitled LoTo001  
Tune 127Decay127
```

- **Decay** <Decay> <000-255>

Decay determines how long it takes for the sound of the low tom to decay.

```
Untitled LoTo001  
Tune 127Decay127
```

- **Level** <Level> <000-255>

Determines the volume level of the low tom inside the selected kit.

```
Untitled LoTo001  
Level1255Veloc0FF
```

- Velocity <Veloc> <ON/OFF>

This parameter determines whether or not the low tom volume level will be affected by incoming Midi note on velocity messages.

<ON> - The low tom volume level will be affected by Midi note on velocity messages.

<OFF> - The low tom will always play at the volume level set in the level parameter. Incoming Midi velocity messages are ignored.

```
Untitled LoTo001
Level255VelocOFF
```

-Initialization <Init> <ON/OFF>

Initializing the low tom sets all parameters to default values that correspond more or less to the sound of a „normal“ low tom.

<ON> - the low tom is initialized, but not stored.

<OFF> - the low tom remains unchanged.

```
Untitled LoTo001
Init OFF
```

High Tom parameters

- **Tune** <Tune> <000-255>

Tune determines the pitch of the high tom oscillator. The basic high tom pitch is higher than of the low tom.

```
Untitled HiTo001  
Tune 127Decay127
```

- **Decay** <Decay> <000-255>

Decay determines how long it takes for the sound of the high tom to decay.

```
Untitled HiTo001  
Tune 127Decay127
```

- **Level** <Level> <000-255>

Determines the high tom's volume level inside the selected kit

```
Untitled HiTo001  
Level1255Veloc0FF
```

- Velocity **<Veloc>** **<ON/OFF>**

This parameter determines whether the high tom volume level will be affected by incoming Midi note on velocity messages or not.

<ON> - The high tom volume level will be affected by Midi note on velocity messages.

<OFF> - The high tom will always play at the volume level set in the level parameter. Incoming Midi velocity messages are ignored.

```
Untitled LoTo001
Level255VelocOFF
```

-Initialization **<Init>** **<ON/OFF>**

Initializing the HiTom sets all parameters to values that correspond more or less to the sound of a „normal“ HiTom.

<ON> - the high tom is initialized, but not stored.

<OFF> - the high tom remains unchanged

```
Untitled HiTo001
Init OFF
```

Percussion instruments (Hi Hat, Clap, Rim Shot, Crash and Ride)

While kick, snare and tom toms are produced by analog synthesis circuitry, the instruments hi hat, clap, crash and ride are sample based. For each of these instruments there is a choice of four different samples, organized in the sets 0, 1, 2 and 3. Set 0 uses samples of an acoustic drum set, the sets 1-3 consists out of various percussion sounds from most different origin that are partly difficult to describe by words. Since that, the description 'clap, rim, crash and ride' only stands for the samples in set 0. In the other sets, the names are the same but the sounds may differ from the description.

All samples are 8 bit samples that are post processed with analog sound circuitry like a true envelope VCA and a filter for the hi hat section.

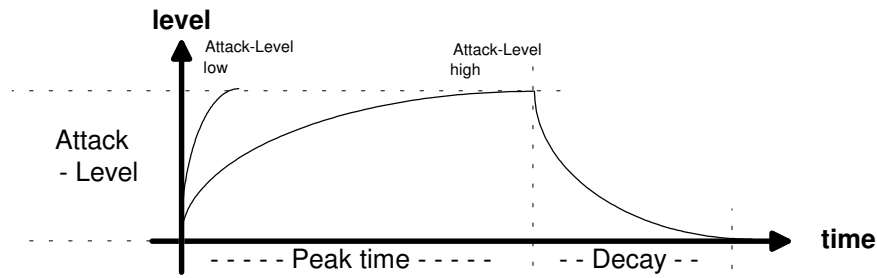
The raw samples are sent through a VCA operating as an expander that essentially controls the volume envelope of the resulting sound.

The VCA envelopes of the instruments hi hat, clap, crash and ride are built up identically and can be influenced by the parameters attack, peak time, start point and decay.

The hi hat signal path passes through a combined high/low pass resonant filter. That makes it possible to cut bass or treble frequencies from a sample or out of the noise signal (see also „source“ parameters) and to affect the sample's harmonic content with the resonance parameter. This filter is only available to the hi hat instrument type! Since the parameters for clap, rimshot, crash and ride are identical, these will not be listed individually, but discussed using the clap sample as an example valid for crash, rim and ride.

The volume envelope

The analog volume envelope for the hi hat and all other percussion instruments works like this:



The attack level parameter determines the attack intensity of the sound. The lower the attack level is adjusted, the more direct starts the sound.

The peak time determines the lengths of the attack or in other words the point at which the envelope switches from attack to decay.

The decay parameter determines the length of the decay. Is peak time adjusted to 000, so the decay starts right after triggering the instrument. You get the shortest envelopes by setting peak time to 000 and choosing a short decay.

Using medium to high peak times and short decays gives you a gate-like effect. The most extreme case is attack and decay = 000, resulting in a rectangular envelope, of which the 'gate time' can be adjusted via peak time. High attack levels combined with peak time = 000 make no sense, because the envelope will not reach its maximum resulting in a weak output level. Check parameter settings and combinations to get familiar with it.

Hi Hat parameters

- Tune <Tune> <000-255>

Determines the pitch or rather the playback speed of the hi hat sample covering a very wide range. The setting is valid for the closed as well as for the open hi hat. The value of 100 corresponds to the sample's original pitch.

```
Untitled HiHa001  
Tune 100CHAtt000
```

- Closed HiHat Attack <CHAtt> <000-255>

Determines the attack intensity of the closed hi hat envelope. By increasing this value you can make reverse samples fade in slowly. High values are well suited for jazzy playing styles.

```
Untitled HiHa001  
Tune 100CHAtt000
```

- Closed HiHat Peak Time <CHPkt> <000-255>

Determines how long the closed hi hat envelope is to remain open before the decay phase sets in. When a very high peak time value is set, changes in the attack value are very clearly audible. A change of the decay value, on the other hand, has only a very small effect because the sample might already have ceased to play back before the decay phase sets in.

```
Untitled HiHa001  
CHPkt050CHDec010
```

- Closed HiHat Decay <CHDec> <000-255>

Decay determines the time for the the VCA envelope's decay phase.

```
Untitled HiHa001  
CHPkt050CHDec010
```

- Open HiHat Attack <OHAtt> <000-255>

Determines the attack intensity of the open hihat envelope. By increasing this value reverse playback samples can be faded in slowly. High values are also suited for soft, jazzy playing styles.

Untitled HiHa001
OHAtt0010HPkT065

- Open HiHat Peak Time <OHPkT> <000-255>

Determines how long the open hihat envelope is to remain open before the decay phase sets in. When a very high peak time value is set, changes in the attack value are very clearly audible. A change of the decay value, on the other hand, has only a very small effect because the sample might already have ceased to play back before the decay phase sets in.

Untitled HiHa001
OHAtt0010HPkT065

- Open HiHat Decay <OHDec> <000-255>

Decay determines the decay time of the open hi hat's VCA envelope.

Untitled HiHa001
OHDec151Start052

- Open HiHat Startpoint <Start> <000-255>

This parameter determines the start point of the open HH sample. The value of HH startpoint has to be lower than Peak Time. If it is higher, then the OH will not be played back. With this, you can obtain a very smooth set-in of the samples and creative processing of sound. CH will not be affected.

Untitled HiHa001
OHDec151Start052

- **HiHat Sample Select** **<Smple>** **<SP0-SP3>**
Here you can select from a total of four hi hat samples:
<SP0> - hi hat sample of an acoustic drumkit.
<SP1> - hi hat sample of an analog TR808 hi hat sound.
<SP2> - sample of a small handheld cymbal.
<SP3> - small metal plate, hit by a wooden stick.

Untitled HiHa001
Smp1eSP0RevrsOFF

- **Reverse Play** **<Revr>** **<ON/OFF>**
<ON> - Closed and open hihat samples are played backwards. To obtain best results, you might want to adjust the envelope parameters.
<OFF> - The hihat samples are played back normally.

Untitled HiHa001
Smp1eSP0RevrsOFF

- **Source** **<Sourc>** **<NOR/FIL/NOI>**
The source parameter determines which audio signal is passed through the hi hat VCA envelopes.
<NOR> - The hi hat samples are routed directly to the VCA, bypassing the filter.
<FIL> - The hi hat sample is routed to the filter and then to the VCA.
<NOI> - Instead of samples, analog noise is routed to the filter and then to the VCA.

Untitled HiHa001
SourcNORCutHP150

- High Pass Filter Cutoff <CutHP> <000-255>

A value of 255 means that low frequencies are cut. If this value is decreased, low frequencies become louder. A „High pass filter“ is a filter that lets high frequencies pass and cuts low frequencies.

Untitled HiHa001
SourcNORCutHP150

- Low Pass Filter Cutoff <CutLP> <000-255>

A value of 255 lets all frequencies pass. If the value is reduced, high frequencies are cut, leaving only the low frequencies. A „low pass filter“ lets low frequencies pass and cuts high frequencies.

Untitled HiHa001
CutLP200Reson200

- Filter Resonance <Reson> <000-255>

This parameter directly affects the filter resonance of both filters. A value of 000 means that both filters are working without resonance. When high values are set, the filter's slope changes. Changing the cutoff parameter will sound different with different resonance values.

You should experiment with these parameters to get the feel of what they do. The filter basically behaves like the filter of an analog synthesizer. It is however not possible to make it self-oscillate (whistle).

Untitled HiHa001
CutLP200Reson200

- **Level** <Level> <000-255>
Determines the basic volume level of the hi hats inside the selected kit.

```
Untitled HiHa001
Level255VelocOFF
```

- **Velocity** <Veloc> <ON/OFF>
This parameter determines whether the hi hat volume level will be affected by incoming Midi note on velocity messages or not.

```
Untitled HiHa001
Level255VelocOFF
```

<ON> - The hi hat volume level will be affected by Midi note-on velocity messages.

<OFF> - The hi hats will always play at the volume level set by the level parameter. Incoming Midi velocity messages are ignored.

- **Initialization** <Init> <GO>
Initializing the hi hats sets all parameters to default values that correspond more or less to the sound of „normal“ 909 hi hat, i.e. after initialization the hi hats will be heard unfiltered with a normal envelope setting.

```
Untitled HiHa001
Init OFF
```

<ON> - the hi hats are initialized, but not stored.

<OFF> - the hi hats remain unchanged.

The parameters of Clap, Rim, Crash and Ride

As mentioned in the hi hat section, the parameters for rim shot, clap, crash and ride are identical. The volume envelope is the same as in the hi hat section.

Clap is discussed here as an example valid for rim shot, crash and ride!

- Tune <Tune> <000-255>

Determines the pitch, i.e. the playback speed of the clap sample.

```
Untitled Clap001  
Tune 110Attac000
```

- Attack <Attac> <000-255>

Determines the attack intensity of the clap volume envelope. By increasing this value you can for example make reverse samples fade in slowly. High values are well suited for soft attack phases.

```
Untitled Clap001  
Tune 110Attac000
```

- Peak Time <PeakT> <000-255>

Determines how long the clap envelope is to remain open before the decay phase sets in. When a very high peak time value is set, changes in the attack value are very clearly audible. A change of the decay value, on the other hand, has only a very small effect because the sample might already have ceased to play back before the decay phase sets in.

Untitled Clap001
PeakT050Decay128

- Decay <Decay> <000-255>

Determines how long the clap VCA envelope will take to decay

Untitled Clap001
PeakT050Decay128

- Start Point <Start> <000-255>

This parameter determines the start point of the chosen sample. The value of Start Point has to be lower than Peak Time. If it is higher, then the sound will not be played back. With this, you can obtain a very smooth set-in of the samples and creative processing of sound. Especially with the complex samples you can select interesting parts of the sound by playing with Start point and Peak time values.

Untitled Clap001
Start045RevrsOFF

- Reverse Play <Revr> <ON/OFF>

<ON> - The sample is played backwards. For best results, it is useful to adjust the volume envelope parameter.

<OFF> - The sample is played normally.

Untitled Clap001
Start045RevrsOFF

- Sample Select <Smple> <SP0-SP3>

You can assign one of four samples to the instrument types rim, clap,crash and ride. The table below shows which samples are assigned to the values

<SP0 / SP1 / SP2 / SP3>

Untitled Clap001
Smp1eSP0Level1255

Sample Select	Clap	Rimshot	Crash	Ride
Set 0 (Drumset)	Handclap	Acoustic Rim	Acoustic Crash	Acoustic Ride
Set 1	Metallic Ring	Claves Bright	Rainmaker	Klangschale
Set 2	Plastic Shaker	Claves Low	Rustle	Whistle
Set 3	Shaker	Metallic Claves	Metal Scrape	Bongo

The sample sets 1-3 consist of various percussion sounds from mostly different origin that are partly difficult to describe in words. Since that, the description 'clap, rim, crash and ride' only fits for the samples in set 0. In the other sets, the names are the same in order to keep things easy and the sounds may differ from the description. Seen the table above for description.

- Level <Level> <000-255>

Determines the basic volume level of the clap inside the selected kit.

Untitled Clap001
Smp1eSP0Level1255

- **Velocity** **<Veloc>** **<ON/OFF>**

This parameter determines whether the clap volume level will be affected by incoming Midi note on velocity messages or not.

```
Untitled Clap001  
Veloc0FFInit OFF
```

<ON> - The clap volume level will be affected by Midi note on velocity messages.

<OFF> - The clap will always play at the volume level set in the level parameter. Incoming Midi velocity messages are ignored.

-**Initialization** **<Init>** **<ON/OFF>**

Initializing the clap sets all parameters to default values.

```
Untitled Clap001  
VelocOFFInit 0FF
```

<ON> - the clap is initialized, but not stored.

<OFF> - the clap remains unchanged.

The two LFOs - how to modulate

The JaZBase03 features two digital LFOs (**L**ow **F**requency **O**scillators). These are modulators that are used in synthesizers to create tremolo, vibrato and wah wah effects by modulating the pitch or filter cutoff frequency respectively. Even though the JaZBase03 is not a 'normal' synthesizer, the LFOs can produce unusual and great sounding results.

The JaZBase03's LFOs are treated and edited as instruments. This means that the LFO's parameters are to be found under the instrument type „LFOs“. As with the other instrument types, you can store 256 instrument variations of the LFOs.

LFO Parameters

LFO 1 Waveform <L1Wav> <Sup/Sdo/Tri/RCT>

This parameter determines the waveform used by the first LFO. These are the possible settings:

- <Sup> - Saw up
- <Sdo> - Saw down
- <Tri> - Triangle
- <RCT> - Rectangular

Untitled _LFOs001
L1WavSupL1DesBDt

Untitled LFOs001
L1WavSupL1DesBDt

LFO 1 Destination <L1Des> <BDt/ SDt/LTt/HTt/HHt/FIL/CPt/RMt/Crt/RDt>

Here you can set which sound parameter will be modulated by LFO 1. The following modulation targets are possible:

- <BDt>** - Kick Drum Pitch (**B**ass **D**rum **t**une)
- <SDt>** - **S**nare **D**rum **t**une
- <LTt>** - **L**o **T**om **t**une
- <HTt>** - **H**i **T**om **t**une
- <HHt>** - **H**i **H**at **t**une
- <FIL>** - **F**ilter Cutoff (both low and high pass)
- <CPt>** - **C**lap **t**une
- <RMt>** - **R**imshot **t**une
- <CRt>** - **C**rash **t**une
- <RDt>** - **R**ide **t**une

Untitled LFOs001
L1WavSupL1DesBDt

LFO 1 Intensity <Int> <000-255>

LFO intensity determines the intensity at which the destination parameter will be modulated. A value of 000 shuts any of the LFO off.

Untitled LFOs001
L1Int220L1Rat018

LFO 1 Rate <Rat> <000-255>

Determines the rate at which the LFO runs. The absolute LFO speed is also dependent on the BPM parameter in Master Mode. Set the BPM parameter to the same value as that of your sequencer. So you can program rhythmic modulations. If the tempo of your music changes, all you have to do is to readjust the BPM parameter in Master Mode.

Untitled LFOs001
L1Int220L1Rat018

LFO 2 Waveform <L2Wav> <Sup/Sdo/Tri/RCT>

This parameter determines the waveform used by the second LFO. These are the possible settings:

- <Sup> - Saw up
- <Sdo> - Saw down
- <Tri> - Triangle
- <RCT> - Rectangular

Untitled LFOs001
L2WavSupL2DesBDt

LFO 2 Destination <L1Des> <BDt/ SDt/LTt/HTt>

Here you can set which sound parameter will be modulated by LFO 2. The following modulation targets are possible:

- <BDt> - Kick Drum Pitch (**B**ass **D**rum **t**une)
- <SDt> - **S**nare **D**rum **t**une
- <LTt> - **L**o **T**om **t**une
- <HTt> - **H**i **T**om **t**une

Untitled LFOs001
L2WavSupL2DesBDt

LFO2 Intensity <Int> <000-255>

LFO2 intensity determines the intensity with which the target-parameter will be modulated. A value of 000 turns the LFO off.

```
Untitled LF0s001
L2Int220L2Rat018
```

LFO2 Rate <Rat> <000-255>

Determines the rate at which the LFO runs. The absolute LFO speed is also dependent on the BPM parameter in Master mode. Set the BPM parameter to the same value as of your sequencer. The following table will help you to program rhythmic modulations. If the tempo of your music changes, all you have to do is to readjust the BPM parameter in Master mode.

```
Untitled LF0s001
L2Int220L2Rat018
```

Synchronization of LFO 1 <L1Syn> <ON/OFF>

With this parameter you can determine whether LFO1 will be restarted on the assigned instrument trigger or if it will run independently of instrument triggers (Midi note on).

```
Untitled LF0s001
L1Syn0N L2SynOFF
```

Synchronization of LFO 2 <L2Syn> <ON/OFF>

With the aid of this parameter you can determine whether LFO2 will restart after the instrument it modulates has been triggered or if it will run independently of instrument triggers (Midi note on).

```
Untitled LF0s001
L1SynOFFL2Syn0N
```

Quitting the edit menu - to store

Automatic storage request

Keep the left cursor button pressed. An automatic repeat function will make the cursor quickly travel back to the kit selection parameter. If you have changed an instrument's sound forming parameters, the display will read: "Store Instr?" and the 'Enter' button will blink. If this request does not appear, you have not edited any parameter and do not need to store anything.

```
Untitled Kick001  
Store instr? YES
```

Confirming the storage process

Press the blinking „Enter“ button to store the settings under the indicated instrument numbers.

Example: All kick drum sound parameters are stored at the number 001.

The display reads "Instrument stored" to indicate that the storage process is confirmed.

```
Untitled Kick001  
Instrum. stored
```

Aborting the storage process

To abort the storage process, turn the value knob to the left until the display reads „Store instr? NO”.

```
Untitled Kick001  
Store instr? NO
```

Press the blinking „Enter” button to abort the storage process. The abortion of the storage process is confirmed by the display reading "Command aborted"

```
Untitled Kick001  
Command aborted
```


Midi Implementation

Note on messages

The instruments of the JaZBase03 can be triggered by midi notes.
The assignment of instruments to Midi note numbers is shown in the table below.

JaZbase Instrument	Midi Instr. Name	Midi Note Number	Note name
Kick Drum	Bass/Kick Drum	36	C1
Snare Drum	Electric Snare	40	E1
Lo Tom	Low Floor Tom	41	F1
Hi Tom	High Floor Tom	43	G1
Cl. Hi Hat	Closed Hi Hat	42	F#1
Cl. Hi Hat long	Pedal Hi Hat	44	G#1
Open Hi Hat	Open Hi Hat	46	A#1
Clap	Clap	39	D#1
Rim Shot	Rim Shot	37	C#2
Crash	Crash	49+50	D2+C#2
Ride	Ride	52	E2+F2

Midi Controller Table 1

BASS DRUM	Controller No.	Value range	internal range
Tune	100	0-127	256
Pitch	101	0-127	256
Decay	102	0-127	64
Harmonics	103	0-127	64
Pulse	104	0-127	16
Noise	105	0-127	16
Attack	106	0-127	16
EQ	107	0-127	8
BD Level	117	0-127	256

SNARE DRUM	Controller No.	Value range	internal range
Tune	108	0-127	128
Snappy	109	0-127	64
Decay	110	0-127	64
Detune	111	0-127	16
Noise Tune	112	0-127	64
SD Level	118	0-127	256

LOW TOM	Controller No.	Value range	internal range
Tune	12	0-127	256
Decay	13	0-127	64
Level	14	0-127	256
HIGH TOM			
Tune	15	0-127	256
Decay	16	0-127	64
Level	17	0-127	256
HI HAT			
Tune	18	0-127	256
CH Attack	19	0-127	256
CH Peaktime	20	0-127	256
CH Decay	21	0-127	256
OH Attack	22	0-127	256
OH Peaktime	23	0-127	256
OH Decay	24	0-127	256
HH Start	35	0-127	64
HH Level	25	0-127	256
LF Cutoff HP	59	0-127	256
LF Cutoff LP	60	0-127	256
LF Resonance	61	0-127	256

HAND CLAP	Controller No.	Value range	internal range
Tune	26	0-127	256
Attack	27	0-127	256
Peaktime	28	0-127	256
Decay	29	0-127	256
Start	36	0-127	64
Level	30	0-127	256
RIM SHOT			
Tune	44	0-127	256
Attack	45	0-127	256
Peaktime	46	0-127	256
Decay	47	0-127	256
Start	37	0-127	64
Level	48	0-127	256

CRASH	Controller No.	Value range	internal range
Tune	49	0-127	256
Attack	50	0-127	256
Peaktime	51	0-127	256
Decay	52	0-127	256
Start	38	0-127	128
Level	53	0-127	256
RIDE			
Tune	54	0-127	256
Attack	55	0-127	256
Peaktime	56	0-127	256
Decay	57	0-127	256
Start	39	0-127	128
Level	58	0-127	256

LFO	Controller No.	Value range	internal range
LFO 1 Waveform	75	0-15 see next page	8
LFO 1 Destination	76	0-9 see next page	10
LFO 1 Intensity	77	0-127	256
LFO 1 Rate	78	0-127	256
LFO 2 Wave	79	0-15 see next page	8
LFO 2 Destination	80	0-3 see next page	5
LFO 2 Intensity	81	0-127	256
LFO 2 Rate	82	0-127	256

Midi Controller Table 2

Single functions of LFO parameter

Controller value ->	0	1	2	3	4-7	8	9	10	11	12-15
LFO1 Waveform /75	Sup free	Sdo free	Tri free	Rct free	--	Sup syn	Sdo syn	Tri syn	Rct syn	--
LFO2 Waveform /79	Sup free	Sdo free	Tri free	Rct free	--	Sup syn	Sdo syn	Tri syn	Rct syn	--
Controller value ->	0	1	2	3	4	5	6	7	8	9
LFO1 Destination /76	BDt	SDt	LTt	HTt	HHt	FIL	CPt	Rmt	CRt	RDt
LFO2 Destination /80	BDt	SDt	LTt	HTt	--	--	--	--	--	--

KIT BANKS	Controller No.	Value range	internal range
Bank Select LSB	32	0-7 = 8 half Banks	8 Banks with 128 Kits internal Display: 4 Banks w/ 256 Kits
Prog Change	Kit Select	0-127	256 Kits per Bank

To select the kits # 128-255 in Bank 000 - 003 you have to send the bank select controller 32 in advance by using the values 1, 3, 5 or 7. These uneven controller values determine the upper half bank of the desired bank. The values 0, 2, 4 and 6 correspond to the lower half of the specific bank.

An example: Bank 000 Kit 200 is selected by using Bank Select = 1 and Prog Change = 73
(200 - 127 = 73)

System Exclusive Data

Only the bulk dumps are handled as system exclusive data, since parameter control is generally effected by means of MIDI continuous controllers.

The system exclusive command line has the following form:

\$F0(SysEx Begin), \$31(JoMoX manufacturer code), \$7F(command Sys Ex Dump), \$55(Header), \$00(Header),XX(Data0),XX(Data1),..., \$F7(End of SysEx)

The sysex sequences are displayed, as is customary, in hexadecimal form.

Reset

Switch off the JaZBase03. Hold the buttons master, edit and play/midi pressed down and switch the unit on again. This will initialize the memory banks. Caution! All user presets and kits will be erased! The kits and instrument variations of the ROM bank will be copied to kit bank 000 after reset so they can be edited and stored there.

Software Version

Directly after switching the unit on the JaZBase03 will display its software version. For firmware updates, please refer to JoMoX directly as is described in section Service, updates,.. on page 63. The internal firmware cannot be updated by midi dump. A chipset has to be ordered.

Technical Data

Instruments	Kick Drum, Snare Drum, Low Tom, High Tom, true analog with digital control of all sound forming parameters. Open / Closed Hi Hat , Clap, Rim Shot, Crash, Ride uses 8-bit samples with analog envelopes.
Connections	Midi in/out/thru Audio Mix L/R: 2 x ¼" mono-jacks 10 individual outs: 10 x ¼" mono-jacks Headphone out: ¼" stereo-jack
Output level	about +4 dBu at all individual out
Display	2 x 16 Characters LCD display
Power Supply	12V AC/AC adapter
Casing	19" single rackspace unit steel casing
Dimensions	483 mm x 45 mm x 250 mm
Weight	3,5 kg

Service, updates, tips & tricks

You can get it by your local dealer or distributor or by contacting JoMoX GmbH

via Internet <http://www.jomox.de>
postal address JoMoX GmbH / Körtestr. 10 / 10967 Berlin / Germany
per FAX +49 - (0)30 / 61 70 25 74
via E-Mail **info@jomox.de**

We warmly recommend the users of our products, to register in the above-mentioned ways. We will then automatically inform customers as regards subsequently released updates, specific features, of tips and tricks, that are reported us from our technical department or from other users.

Feedback

The JoMoX GmbH is manufacturer of musical instruments in the sense of creative equipment. Critical and constructive suggestions are welcome and will be given some consideration during the planning and further development of our products. In order to show the wide spectrum of possibilities to other users, to our dealers or interested new customers, we are particularly interested in information on sound recording releases or live presentations performed with our products. We wish you lots of fun, creativity, and success while working with the JaZBase03, and thank you in advance for incoming feedback and messages.

Berlin, March 2003