

# MaxSynths

## DR-910

DRUM MACHINE

### User Manual



- DR-910 Interface -

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## Introduction

Welcome and thank you for purchasing MaxSynths' DR-910!

DR-910 is a drum machine inspired by one of the most known percussive instruments that massively helped to define the sound of modern electronic music. The instrument itself does not need presentations: used by artists like *Moby*, *Fatboy Slim*, *The Prodigy*, *Jean Michel Jarre*, *The Chemical Brothers*, *Faithless* and many many others, the TR-909 quickly became one of the most classic pieces of gear in the electronic musician's arsenal.

In terms of sound the DR-910 VSTi is a faithful reproduction of the original device: each sound section (bassdrum, snare drum, etc.) has been developed to sound and act as similar as possible to the original instrument. The plugin includes also some extra features not available in the hardware version: a reverb unit with independent send controls for each sound source, a compressor tailored to work with drum sounds (based on the same engine of MaxSynths DSP-1) and a Lo-Fi FX processor. These extra features will help the user to quickly shape the sound as desired without using external plugins. However if you need to process the signal with external effects, each drum module signal can be routed to four different stereo outputs that can be independently processed in the DAW.

The plugin workflow is straightforward, by the way I suggest you to take a few minutes to read this manual to better understand the instrument in all its parts.

I sincerely hope that DR-910 can be a source of entertainment and inspiration for your musical creations. Have fun!

*Massimo Bosco*

## Features

- Faithful emulation of the original sound
- Four stereo outputs
- Mute and pan options for each instrument
- Independent send level to the built-in reverb unit for each instrument
- Built-in compressor featuring IDP circuit \*
- Built-in reverb unit routable to output 1-4
- Lo-Fi FX with three independent modes
- Full MIDI support through MIDI CC#
- Behringer BCR-2000 custom template
- Easy to operate
- Low CPU usage

\* The same available on DSP-1 Drums VST.

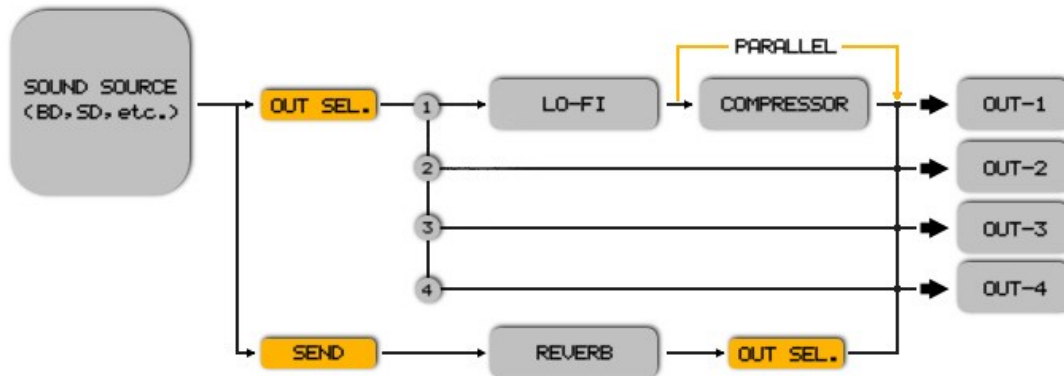
## System Requirements

MINIMUM SYSTEM REQUIREMENTS: PC running WinXP, Vista or W7, CPU 1Ghz with SSE2 support, 512MB RAM, soundcard with ASIO drivers, compatible ASIO host.

## Installation

1. Close your host (Cubase, Sonar, etc.).
2. Copy the content of the zip archive into your VST plugins folder (for example: "*C:\Program Files\VSTPlugins*"). **Be sure to copy both the dll file and the "DSP-3" folder.**
3. Run your host and do a plugin rescan (refer to your DAW manual).

# Signal Flow



- DR-910 signal flow -

DR-910 features 4 independent stereo outputs. Each instrument (bassdrum, snare, toms, etc.) can be routed to a different output according with your needs. For example is possible to group the toms together to OUT-2, the cymbals to OUT-3 etc; in this way it's possible to process the different percussive sections with different effects from inside your DAW, or you can choose to use the internal effects for some instruments and process some others with external effects.

As indicated in the signal flow scheme above the Lo-Fi FX and the compressor are placed in serial order and routed to OUT-1. The output of the reverb unit, however, can be routed to each of the four available outputs and works in parallel with the Lo-Fi and compressor. This is useful if you need to print the dry and wet sound on different tracks, for example. The output signal of the reverb is sent straight to the selected output destination and is not processed by the Lo-Fi and/or compressor unit (if OUT-1 is selected the reverb is placed after the compressor unit).

Please note: the Lo-Fi and compressor are available only on the OUT-1 chain; on other output destinations the signal is sent out dry. This means that if you shape your sound, using for example the compressor, and in a second moment decide to route the snare drum to a different output, this will result in a dramatic change in terms of sound (and also in terms of volume) because the audio material fed into the compressor has changed. In order to achieve the best results try to remember the signal flow and, if possible, decide in advance how to organize your routing options.

# User Interface

The user interface is divided in two sections. The top part contains the instruments and the lower part the effect section and the main controls.



- Instruments section -

The instruments section contains the parameters for the different available sounds:

- Bass Drum
- Snare Drum
- Low Tom
- Mid Tom
- Hi Tom
- Rim Shot / Clap \*
- Hi Hat (closed / open) \*
- Cymbal (crash /ride) \*

**\*coupled**

In the lower part of the instruments section there are the controls for pan position, output selection (see the Signal Flow chapter for more informations) and reverb send.

The instruments which are coupled on the same slot share the same panpot, output and reverb send parameters (rim shot/clap, open/closed hihat, crash/ride).

## Individual instruments knobs:

### BASS DRUM:

- TUNE: set the instrument intonation
- LEVEL: instrument volume
- ATTACK: set the initial click sound
- DECAY: set the decay time of the amplitude envelope

### SNARE DRUM:

- TUNE: set the instrument intonation
- LEVEL: instrument volume
- TONE: noise release time
- SNAPPY: noise level amplitude

### LOW, MID, HI TOM:

- TUNE: set the instrument intonation
- LEVEL: instrument volume
- DECAY: set the decay time of the amplitude envelope

### RIM SHOT, CLAP:

- LEVEL (left): rim shot volume
- LEVEL (right): hand clap volume

### HI HAT:

- LEVEL: closed (CH) and open (OH) hihat volume (coupled)
- CH DECAY: set the decay time of the amplitude envelope
- OH DECAY: set the decay time of the amplitude envelope

### CYMBAL:

- LEVEL (left): crash volume
- LEVEL (right): ride volume
- CRASH TUNE: set the instrument intonation
- RIDE TUNE: set the instrument intonation

## OTHER CONTROLS:



Each instrument slot have a red LED which become brighter when the sound is triggered.

Clicking on this LED turns off (MUTE) the instrument.



PAN: set the panpot position for the slot

OUTPUT: set the slot output destination

REV: send level to the reverb FX

**DOUBLE CLICK:** reset a knob or slider to its default position.

## GLOBAL OPTIONS:



**MIDI CH:** select the MIDI receiving channel.

**VOLUME:** set the volume for output 1 (do not affect the output of out 2, 3 and 4).

**PATCH BROWSER:** click the display to open the popup menu or use the PREV and NEXT button to select the patches.

**LICENSE:** show license information.



## FX Section

The FX section feature a reverb, a Lo-Fi unit and a compressor. The Lo-Fi FX and the compressor are connected in serial mode one after the other. The reverb unit works in parallel mode (see the signal flow chapter).

### REVERB:



### CONTROLS:

**PRESET SELECTION:** there are eight different presets that can be selected by pressing the corresponding button.

**OUTPUT:** stereo output destination for the wet signal.

### COMPRESSOR:



### CONTROLS:

**ON / OFF:** turns the compressor on/off

**THRESHOLD:** set the threshold level

**MODEL:** the compressor can work in two modes, *soft and hard*. In hard mode the compression ratio level is increased resulting in a more incisive compression effect.

**MODE:** there are two operative modes, *normal and parallel*. In parallel mode the dry signal is sent to the output together with the signal processed by the compressor.

**WARNING:** selecting parallel mode will result in a massive increment of the volume.

## LO-FI:



The Lo-Fi effect can be used to degrade the sound. This can be useful for experimental purposes or musical styles like hardcore, dubstep, etc.

### CONTROLS:

**MODE:** select between three different modes, 8, 6 or 4bit depending on the degree of intensity desired.

# *MIDI Note Assignment*

BassDrum: **B0-C1**

Snare Drum: **D1-E1**

Tom Low: **G1-A1**

Tom Mid: **B1-C2**

Tom Hi: **D2**

Rim Shot: **C#1**

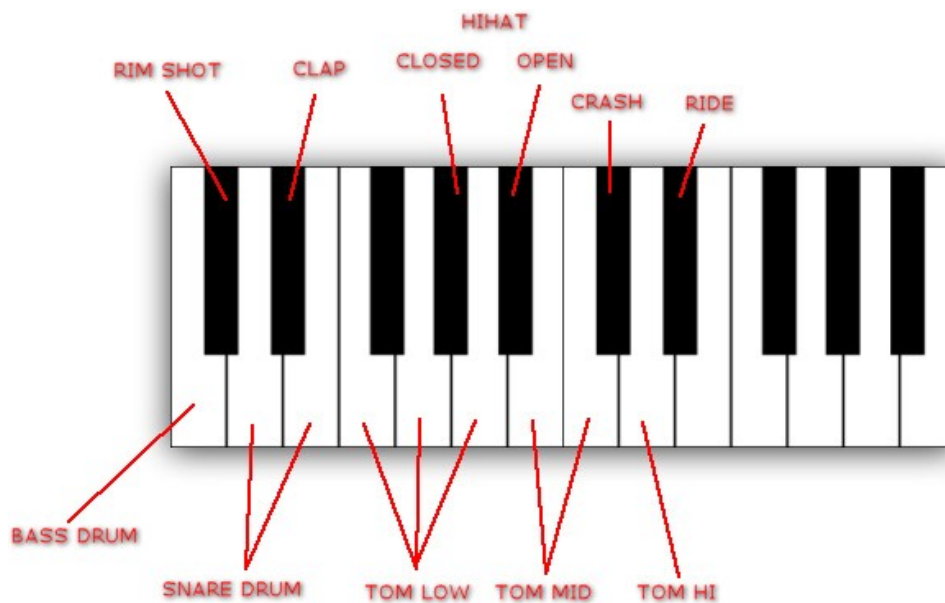
Clap: **D#1**

Closed HiHat: **G#1**

Open HiHat: **A#1**

Crash: **C#2**

Ride: **D#2**



# MIDI Controllers

CC#007	Main Volume	CC#029	Rim Shot LEVEL
CC#012	Bass Drum TUNE	CC#065	Rim Shot MUTE
CC#013	Bass Drum LEVEL	CC#030	Clap LEVEL
CC#014	Bass Drum ATTACK	CC#066	Clap MUTE
CC#015	Bass Drum DECAY	CC#048	RS/CL PAN
CC#072	Bass Drum PAN	CC#049	RS/CL REVERB SEND
CC#039	Bass Drum REVERB SEND	CC#031	Hi Hat LEVEL
CC#060	Bass Drum MUTE	CC#032	Closed HH DECAY
CC#016	Snare Drum TUNE	CC#067	Closed HH MUTE
CC#017	Snare Drum LEVEL	CC#033	Open HH DECAY
CC#018	Snare Drum TONE	CC#068	Open HH MUTE
CC#019	Snare Drum SNAPPY	CC#050	Hi Hat PAN
CC#040	Snare Drum PAN	CC#051	Hi Hat REVERB SEND
CC#041	Snare Drum REVERB SEND	CC#034	Crash LEVEL
CC#061	Snare Drum MUTE	CC#036	Crash TUNE
CC#020	Low Tom TUNE	CC#069	Crash MUTE
CC#021	Low Tom LEVEL	CC#035	Ride LEVEL
CC#022	Low Tom DECAY	CC#037	Ride TUNE
CC#042	Low Tom PAN	CC#070	Ride MUTE
CC#043	Low Tom REVERB SEND	CC#052	Cymbal PAN
CC#062	Low Tom MUTE	CC#053	Cymbal REVERB SEND
CC#023	Mid Tom TUNE		
CC#024	Mid Tom LEVEL	CC#054	Compressor ON/OFF
CC#025	Mid Tom DECAY	CC#055	Compressor THRESHOLD
CC#044	Mid Tom PAN	CC#056	Compressor MODEL
CC#045	Mid Tom REVERB SEND	CC#057	Compressor MODE
CC#063	Mid Tom MUTE	CC#058	Lo-Fi ON/OFF
CC#026	Hi Tom TUNE	CC#059	Lo-Fi MODE
CC#027	Hi Tom LEVEL		
CC#028	Hi Tom DECAY		
CC#046	Hi Tom PAN		
CC#047	Hi Tom REVERB SEND		
CC#071	Hi Tom MUTE		

# BCR-2000 Configuration

The configuration file provided allows to control the key parameters with a Behringer BCR-2000 controller.

To load the sysex file into your BCR-2000 follow these **INSTRUCTIONS**:

- 1) Turn on the BCR-2000 and select an empty preset slot.
- 2) Run your host or the program you use to transfer the sysex files and load the BCR-2000\_DR-910VSTi.syx file
- 3) Be sure the software is sending the MIDI data to the right port (the MIDI port where your BCR-2000 is connected) and start sending the MIDI data.
- 4) When the data transfer is complete press the "store" button twice to save the DR-910 configuration to the current preset.



# *End User License Agreement*

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## **Credits**

Concept, programming GUI design and manual by Massimo Bosco. Additional graphic images by Thomas P. Heckmann.

Additional Modules by David Haupt, Daz Disley and Kelly Lynch.

VST Plugin Technology by Steinberg.

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# Contact

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