Getting started

to switch on the floordrum just connect the 5V DC power adapter provided with the module to the power input. The LED on the floorBoxONE module will turn on and the display switch on.

Very Important :

The FloorBox ONE module is used in two modes:

1) **playing mode:** In the **playing mode**state the LCD display is **switched off !!** to avoid the module consuming un-necessary power and computing resources for the menu, as it is not needed to view anything on the display while playing.

2) **view-select-edit mode** to select any of the 30 saved drumkits, to view and/or edit the pad instruments, audio volume and other pad parameters. Obviously in this mode the display needs to be switched on. To switch on the display and enter into **view-select-edit mode** perform a **long-press of the DRUM KIT button**

note: once operations in the menu are completed **the display will auto-switch-off 2 minutes after the last button press to return the module to the playing mode.**

Description of Front-panel controls:

Drum Kit

To select a drumkit enter into ***drum kit selection mode*** by pressing the drum kit button. Once pressed you can use the +/- keys to select the 30 stored drum kits. Long-pressing +/- keys allows to move faster among drumkits.
The first 6 drum-kits are different optimized factory preset kits for different styles, while the remaining 24 are identical "standard" kits. All kits can be modified by the user. All settings are saved permanently but can be edited at any time using the front-panel control buttons as described in the following.

note: *In case the user desires the defaults the factory presets for these first 6 kits can be restored by entering FACTORY RESET mode (see below under Key combinations)*

INSTR

to view or edit an instrument allocated to a given floordrum pad (pads are numbered 1 to 8) enter the ***instrument selection mode*** by pressing the INSTR button.
Once in instrument selection mode press the INSTR button repeatedly to view the instruments allocated to pads 1 to 8. After reaching pad 8 further pressing INSTR jumps back to pad 1. More conveniently when you have connected the floordrum hit the pad you want to edit. The hit pad will pop up in the instrument selection menu.
To edit an instrument on a chosen pad press the + / - buttons. Long-pressing +/- will scan faster through the available instruments.

note: The module features 5 kick sounds, 6 snare sounds, 6 hihat sounds, 2 tom sounds, 2 ride sounds , 2 crash sounds and 15 percussion sounds for a total of 38 instruments. The detailed list and description of the sound can be found in ***appendix A module sounds***

LEVEL

To adjust the volume of a pad enter into ***level mode*** by pressing the LEVEL button.
Once in level mode press the LEVEL button repeatedly to view the volume levels of pads 1 to 8. After reaching pad 8 further pressing LEVEL jumps back to pad 1. More conveniently when you have connected the floordrum hit the pad you want to edit. The hit pad number will pop up in the level menu.
To edit the volume of a chosen pad press the + / - buttons. Long-pressing +/- will change the volume faster. The volume values range from 0 to 30.

note: *each drumkit will store its own pad volume parameters so you can set different pad volumes for different drumkits.*

SENS

To change the sensitivity of the pads to hits enter into ***sensitivity mode*** by pressing the SENS button. Once in sensitivity mode press the SENS button repeatedly to view the pad sensitivity of pads 1 to 8. After reaching pad 8 further pressing SENS jumps back to pad 1. More conveniently when you have connected the floordrum hit the pad you want to edit. The hit pad number will pop up in the sensitivity menu.
To edit the volume of a chosen pad press the + / - buttons. Long-pressing +/- will change the sensitivity value faster. The sensitivity of each pad can be adjusted from 0 (no sensitivity) to 15 (maximum sensitivity).

note: *each drumkit will store its own pad sensitivity parameters so you can set different pad sensitivities for different drumkits, for instance for different users.*

THRESH

Another parameter affecting "sensitivity" of the pads is the threshold for detecting pad strokes. Pad strokes weaker than the set pad threshold will not trigger any sound. Too low a threshold will lead to auto-triggering sounds from the pad or via crosstalk between different pads.
It is therefore important to set the optimum threshold for each pad.
The floordrum comes with preset correct thresholds but the user might want to edit these thresholds depending on footwear and playing style.
To edit the pad thresholds enter ***threshold mode*** by pressing the THRESH button. Once in threshold mode press the THRESH button repeatedly to view the pad threshold of pads 1 to 8. After reaching pad 8 further pressing THRESH jumps back to pad 1. More conveniently when you have connected the floordrum hit the pad you want to edit. The hit pad number will pop up in the threshold menu.
To edit the threshold of a chosen pad press the + / - buttons. Long-pressing +/- will change the threshold value faster. The threshold of each pad can be adjusted from 0 (lowest threshold, most sensitive) to 30 (highest threshold, lowest sensitivity).

note: *different pads may need different thresholds not only because of player habit, but also due to construction of the pads which are never perfectly identical. Each drumkit will store its own pad threshold values so you can set different pad thresholds for different drumkits, for instance for different users.*

CURVE

The "dynamics" of the floordrum is controlled by both the absolute pad sensitivity (set in the SENS mode) and the *sensitivity curve* set in **curve-mode**. The sensitivity curve describes how the "speed" (or force) of a pad hit/stroke determines the volume of the reproduced instrument stroke. The module features 4 sensitivity curves: linear, exponential, logarithmic and loudness.

The most "natural" curve is the ***linear*** response curve, which means that reproduced

instrument sound is proportional to the stroke/hit “speed” (force). This allows a quite “natural” and “precise” control of the instrument response.

The ***exponential*** curve produces an instrument dynamic response that weakens the response for slow/weak/delicate strokes and exponentially amplifies it more for faster/stronger strokes when compared to the linear curve, therefore accentuating the stronger strokes and weakening the more delicate strokes.

The ***logarithmic*** curve produces a more “prompt” instrument response also for weaker strokes, while keeping a strong response for the harder hits/strokes. This curve is useful when delicate strokes are not needed.

The ***loudness*** curve produces a instrument with the instrument stroke sound nearly independent on stroke “speed” (force) with just an overall prompt response even for weak strokes and just minor increase of volume for the strongest strokes.

note: *Each drumkit will store its own pad sensitivity curve values so you can set different pad sensitivity curves for different drumkits.*

+/- buttons

The +/- buttons are self-explanatory, serving to increase or decrease parameter values or scan through the list of drumkits or instruments.

SPECIAL Hi-Hat FUNCTION

The HiHat is a very special piece of kit because it can sound open or closed and also has a special sound when it changes from open to closed.
So in The FloorBox One we managed to program this behavior using the solution to dedicate one pad to open hihat and one other to the closed one.
Everytime the closed hihat will be hit right after the open one the closing sound of the hihat will be reproduced. This very special function works between every pad on every input of the sound-module so feel free to find the best solution for you.

Key combinations

INST+LEVEL
by simultaneously pressing keys INST and LEVEL the ***scan-time mode*** can be accessed. In the scan-time mode the scan time for stroke strength determination is set. A stroke on a pad of the floordrum produces an electrical signal via its piezo pickup. The strength of a stroke determines the overall amplitude and maximum positive and negative amplitudes of the signal. The maximum positive and negative amplitude typically occurs within a fraction of a millisecond. So by “scanning” the signal the module determines the maximum of the

signal. A scan time of 1 millisecond is set by default and is normally sufficient to determine the signal peak. Longer scantimes can be set but will introduce audio latency in the pad response.
With a scantime set at 1 millisecond the FloorBox ONE module has a typical audio-latency of 6 milliseconds.

SENS+THRESH
by simultaneously pressing keys SENS and THRES the ***factory reset mode*** can be accessed. To exit the factory preset mode short press the DRUM KIT button.

The factory reset mode serves to reset the pad parameters for the first 5 kits to the optimized floordrum factory preset values in case a user needs or wishes to do so.
By pressing simultaneously the keys SENS+THRESH the module asks to enter a safety password. Enter 3521 by pressing the buttons SENS->CURVE->LEVEL->INSTR which correspond to numeric keys 1=INSTR , 2=LEVEL, 3=SENS, 4=THRESH, 5=CURV.
To cancel an entry press + and - buttons simultaneously.
If the right password 3521 is entered the module ***will reset the first 6 kits to the factory preset*** parameters while leaving unaffected the remaining 24 kits. After resetting the factory presets the module will return automatically to the normal view-select-edit mode.

THRES+CURV

by simultaneously pressing keys THRESH + CURV an ***anti-panic mode*** is entered which is useful if for any reason the floordrum starts to massively auto-trigger pad sounds, normally because of too low set pad threshold values. By entering ***anti-panic mode*** pads are soft-ware disabled temporarily from the floordrum so that auto-triggering sounds stop and thresholds can be adjusted with calm one by one. Typically this means increasing all thresholds to a safety margin and then re-enabling the pads by disabling anti-panic mode by again simultaneously pressing keys THRESH + CURV.

LEVEL+ SENS

By simultaneously pressing keys THRESH + CURV the ***LCD display is switched off and the module enters playing mode***. This key combination is ***equivalent to long-pressing the Drum kit button*** and serves only as a backup key combination.

Technical specifications

Power
5V DC >=1000 mA (min 4.5 V DC max 5.5 V DC) note: you can use powerbank…most will work.The power jack must have the + as the central pin while the sleeve is (-) .
note: The module is not protected for reverse polarization so be careful to set the right polarity if you use unknown power supplies. Batteries might also be used but be careful not to exceed the allowed range of voltages 4.5V to 5.5V.

Audio output
you can use a stereo jack or a mono jack
note: Audio signal is present on both left and right channels but is identical on both channels (no "pan control") so that the audio signal effectively is mono.

Audio latency
typical 6 milliseconds

Piezo inputs:
8 mono cables with jacks for connection to floordrum Piezos or standalone floorBox double or triple stroke pads. For floordrum the piezo cables are numbered 1 to 8 from left to right when viewing the module from the top and connect to plugs 1 to 8 on the floordrum.

appendix A module sounds

KICK 01
KICK 02
KICK 03
KICK 04
KICK 05

SNARE 01 (Yamaha Steel)
SNARE 02 (Ludwig Acrolite)
SNARE 03 (Maple Snare)
SNARE 04 (Brush Snare)
SNARE 05 (Yamaha Custom Birch)
SNARE 06 (Sonor Bronze)

HI-HAT 01 (closing sound)
HI-HAT 02 (normal 1)
HI-HAT 03 (normal 2)
HI-HAT 04 (half open)
HI-HAT 05 (open)
HI-HAT 05 (wide open)

TOM 01 12”
TOM 02 14”

RIDE 01 (2 Layer)
RIDE 02 (soft)

CRASH 01 (Crash + Kick)
CRASH 02 (Crash Choke)

PERCUSSION 01 Sidestick 1
PERCUSSION 02 Sidestick 2
PERCUSSION 03 Sidestick 3 + Reverb
PERCUSSION 04 Tambourin 1
PERCUSSION 05 Tambourin 2
PERCUSSION 06 Cajon Bass
PERCUSSION 07 Cajon Treble
PERCUSSION 08 Cajon Slap
PERCUSSION 09 Shaker 1
PERCUSSION 10 Shaker 2
PERCUSSION 11 Shaker 3
PERCUSSION 12 Shaker 4
PERCUSSION 13 Bongo 1
PERCUSSION 14 Bongo 2
PERCUSSION 15 Cowbell

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