



USER *Donner music* **MANUAL**

ESSENTIAL D1
PERFORMANCE BEAT MACHINE

THANK YOU FOR CHOOSE DONNER!

IMPORTANT NOTES

- * Please read the following in detail first before operation.
- **For the best experience, please check for the latest firmware before using your Essential D1.**
You can download the Donner Control App on our official website (<https://www.donnermusic.com/support/downloads>) to perform the update.
- Only use the power supply that comes with Essential D1.
- Do not disassemble or modify this product to avoid the danger of fire and electric shock.
- Unplug this product during lightning storms and long-time disuse.
- Do not store it in the following environments: Direct sunlight, high temperature, excessive humidity, excessive dust, and strong vibration.
- Do not submerge it in water or drop water onto or into it.
- Do not place this product on an uneven surface or any other unstable place.
- Before cleaning the instrument, always remove the cable. Do not clean the product with thinners, alcohol, or similar chemicals to avoid discoloration.
- Do not insert small objects into the product.

ITEMS INCLUDE

ITEMS	QUANTITY
Essential D1 Performance Beat Machine	1
Power Supply	1
Quick Start Guide	1
USB Cable	1

CONVENTIONS IN THIS MANUAL

There are a few formatting conventions used in this manual to make it clear and convenient for the reader. Here is the list of the types of terms and how they are formatted:

- Names of all controllers (including buttons, faders, knobs, screen, and connectors) on Essential D1 are used in **ALL CAPS BOLD** font-e.g., **PITCH**.
- For all buttons and knobs which have secondary functions, **ALL CAPS BOLD** fonts with [] are used, e.g., **[SEQ]**.
- *ITALICS* are used to identify the contents displayed on the screen, e.g., “*SAVE UNDER*”.

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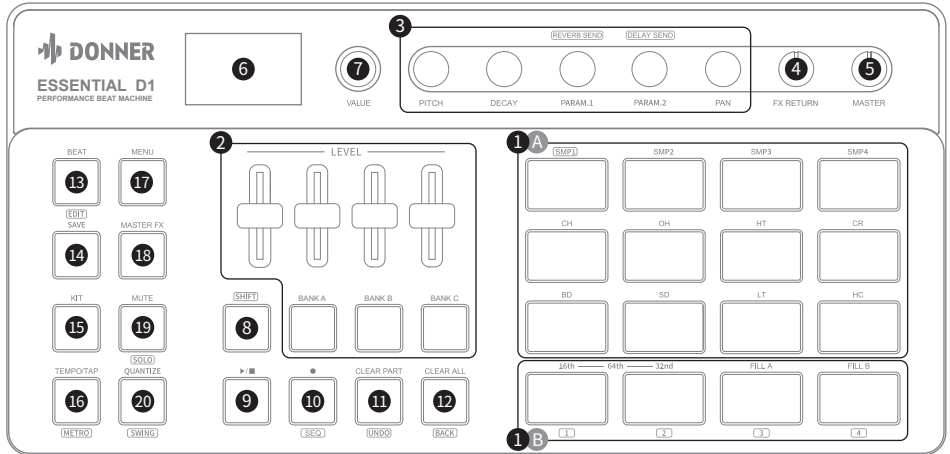
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PANEL LAYOUT AND CONNECTIONS

TOP PANEL



1 RGB VELOCITY SENSITIVE PADS

Depending on whether the Essential D1 is in SEQ mode or not (switch using **SHIFT + [SEQ]**), these 16 velocity sensitive pads will act as different functions:

- When it is not in SEQ mode, these 16 pads will be divided into two sections:

01A BD - SMP4 PADS:

Use these 12 pads to trigger specific sound on each channel. The velocity sensitive pads can feel the force you hit them, the harder you hit, the louder you get on volume.

01B 16th & 32nd PADS:

Press and hold one of these Pads (or both), while holding, press the pad(s) you want in the **01A BD - SMP4 PADS** section will perform roll articulation on the fly. Holding **16th** will perform the sixteenth note drum roll, **32nd** for the thirty-second note drum roll. By holding **16th** and **32nd** at the same time to perform drum roll with the sixty-fourth note.

01B FILL A & FILL B:

Use these pads to trigger drum fill. Every BEAT can store two drum fills.

- **When it is in SEQ mode, 16 pads will be used to edit the sequence of the selected channel. When holding the SHIFT button, these 16 pads will be divided into two sections:**

01A BD - SMP4 PADS:

Press one of these pads to select the channel.

01B [1] - [4] PADS:

In Essential D1, every BEAT can hold 64 steps at most. These 64 steps are divided into 4 pages, 16 steps per page. These 4 pads are used to switch between pages.

2 LEVEL SECTION

Use faders and buttons in this section to control each channel volume. Essential D1's 12 channels are divided into 3 banks, 4 channels per bank.

BANK A = BD | SD | LT | HC

BANK B = CH | OH | HT | CR

BANK C = SMP1 | SMP2 | SMP3 | SMP4

Press **BANK A / BANK B / BANK C** to select bank. The faders above will control the corresponding volumes.

3 CHANNEL EFFECTS SECTION

Channel effects parameters are controlled by 5 encoders located in this section. For the selected channel, its pad will be brighter. Hold SHIFT to select channel without triggering the sound. The functionalities of these 5 encoders are listed below.

PITCH - Changing the pitch of the sample playback.

DECAY - Adjusting the decay stage of the playback envelope.

PARAM.1 & PARAM.2 | [REVERB SEND] & [DELAY SEND] - Based on the selected channel, these two encoders can act as different parameters, more details in the USER MANUAL. Rotating these encoders while holding **SHIFT** can alternate how much signal be sent to Reverb and Delay.

PAN - Changing the panning of the selected channel.

4 FX RETURN

Use this knob to adjust the amount of the return signal. There are two SEND FX (Reverb + Delay) on the Essential D1.

5 MASTER

Control for the output volume. Both **MAIN OUT** and **HEADPHONE** are controlled via this knob.

6 SCREEN

This LCD Screen is used to display the parameters.

7 VALUE

This clickable encoder is designed for multiple purposes, like changing parameters, menu navigation, etc.

8 SHIFT

Press this button to activate the secondary function. By holding this button while turning the encoder, you can refine the parameter controlled by that encoder.

9 PLAY/STOP

Use this button to start/stop playing the BEAT.

10 REC | [SEQ]

Press this button to activate real-time recording when Essential D1 is not in SEQ mode.

* Use **SHIFT + [SEQ]** to enter / exit SEQ mode.

11 CLEAR PART | [UNDO]

- When it is not in SEQ mode, hold this button and press the pads in **01A BD - SMP4 PADS** section will clear the content in the specific channel.
- Use **SHIFT + [UNDO]** to undo the action you accidentally made, like pressing a wrong note in real-time recording, deleting something by mistake, or quantizing the wrong channel, etc.

12 CLEAR ALL | [BACK]

- When it is not in SEQ mode, press and hold this button for more than 3 seconds will clear all the content in the BEAT currently loaded.
- When it is in SEQ mode, press and hold this button for more than 3 seconds will clear all the parameter locks of the selected channel.
- Use **SHIFT + [BACK]** to return to the previous page when navigating the MENU and MASTER FX sections.

13 BEAT | [EDIT]

- Press this button to enter/exit the BEAT SELECT page, where you can choose and load the sequence you like.
- Press **SHIFT + [EDIT]** to enter the BEAT EDIT page, you can change the setting of the selected beat here.
- Hold the **BEAT**, then press one of the pads in the **01B [1] - [4]** PADS section to switch between 4 different BEAT SLOTS, each BEAT SLOT can hold a BEAT.

14 SAVE

- Hold this button, while pressing **BEAT / KIT** to save the beat/kit.
- Use **SAVE + BEAT / KIT** to cancel the saving and return to the MAIN page.

15 KIT

Press this button to enter/exit the KIT SELECT page, where you can choose and load the drum kit you like.

16 TEMPO/TAP | [METRO]

Use this button and **VALUE** encoder to change the BPM and activate/deactivate the METRONOME. There are two ways to edit the BPM value: 1) constantly tapping **TEMPO/TAP** at the speed you want to set the tempo to; 2) press **TEMPO/TAP** to enter TEMPO EDIT page, turn the **VALUE** encoder to edit the BPM (you can hold **SHIFT** while turning the **VALUE** encoder to refine the value).

17 MENU

Press this button to enter/exit the MENU page. For navigating, you will need to combine the **VALUE** encoder and **SHIFT + [BACK]**.

18 MASTER FX

Press this button to enter/exit the MASTER FX EDIT page. For navigating, you will need to combine the **VALUE** encoder and **SHIFT + [BACK]**.

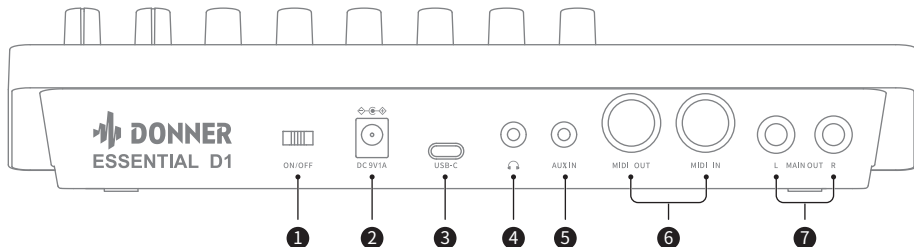
19 MUTE | [SOLO]

Holding **MUTE | SHIFT + [SOLO]** and press the pad(s) in **01A BD - SMP4 PADS** section to mute/unmute | solo/unsolo the channel(s) you want.

20 QUANTIZE | [SWING]

- Holding this button and press the pad(s) in **01A BD - SMP4 PADS** section to quantize the note in the channel(s) you want. The quantize setting will be found on the **BEAT EDIT** page.
- Use **SHIFT + [SWING]** to enter the **SWING SETTING** page, where you can apply swings to the beat currently playing.

REAR PANEL



1 POWER SWITCH

Switch the power on/off.

2 DC IN JACK

Connect the included adaptor here.

3 USB-C PORT

Use this jack to connect Essential D1 to your PC / MAC for data transmission (MIDI I/O, File Management & Firmware Update).

4 HEADPHONES JACK

Connect a set of headphones to this jack.

5 AUX IN JACK

Use a 1/8" (3.5mm) audio cable to connect an audio device here.

⑥ MIDI (IN/OUT) JACKS

Use MIDI cables to connect the MIDI device here.

⑦ MAIN OUT JACKS

Connect monitor speakers here.

SETTING UP AND GETTING STARTED

CONNECTIONS

*** Please always turn down the volume and turn off all the units before making any connections to prevent malfunction and equipment failure.**

1. Place Essential D1 on a flat and steady surface.
2. Ensure the **ON/OFF** switch on the back of Essential D1 is on the OFF side.
3. Always use the power supply included in the package. Connect one end to the **DC 9V1A** jack on the back of Essential D1 and plug another end into a reliable outlet.
4. If you are using monitors, connect them to the **MAIN OUT** jacks located in the rear panel using two 1/4" (6.35mm) TS cables.
5. For those who using headphones, please connect your headphones to the **HEADPHONES** jack on the rear panel.

POWER UP

Before powering up, please make sure the **MASTER** knob is fully counterclockwise!
Pluck the **ON/OFF** switch toward the ON to power up the device.

PLAY A BEAT

When startup, Essential D1 will load a factory SONG. To hear what it is capable of, simply hit **PLAY/STOP** to play the BEAT loaded. While playing, turn the **MASTER** knob clockwise to adjust the output volume. Press **PLAY/STOP** again to stop playing.

LOAD A BEAT

To load another BEAT, press **BEAT** to enter the BEAT SELECT page. Turn the **VALUE** encoder to scroll through the BEAT POOL, and press down the **VALUE** encoder to load the selected BEAT.

EDIT A BEAT

If you want to alter the BEAT content, there are two ways to do that:

1. If you are a finger drummer, real-time recording might be your choice. Keep holding **CLEAR ALL** | **[BACK]** for 3 seconds to clear all the contents in the BEAT. Use **TEMPO/TAP** | **[METRO]** to set the tempo (BPM) you want. If you want a metronome to guide you through the recording process, press **SHIFT + [METRO]** to turn it on. Press **REC** | **[SEQ]** to activate real-time recording. Lastly, hit **PLAY/STOP** to start recording!
2. You can also alter the BEAT by utilizing the step sequencer. Press **SHIFT + [SEQ]** to enter SEQ mode. Here, you can edit BEAT contents by channel. Hold **SHIFT** and press down a pad in **01A BD - SMP4 PADS** to select the channel you want to amend. Hold **SHIFT** and press one of the pads in **01B [1] - [4] PADS** to switch between 4 sequence pages (64 steps in total).

SAVE YOUR BEAT

If you are happy about the edited BEAT, press **SAVE + BEAT** to save it! You will be able to select where to save your BEAT and decide what name should it be called.

FEEL THE SOUNDS

Hit the pads in **01A BD - SMP4 PADS** section to preview the sample in each channel.

TWEAK THE SOUNDS

You can tweak the sounds in the way you love using the controls located in **② LEVEL SECTION & ③ CHANNEL EFFECTS SECTION**. For more details about the channel effects and master effects, please refer to the USER MANUAL.

You can also change the sample by pressing down the **VALUE** encoder to enter the SMP SELECT page, scrolling through the list by turning the **VALUE** encoder, press again to load the sample to the selected channel.

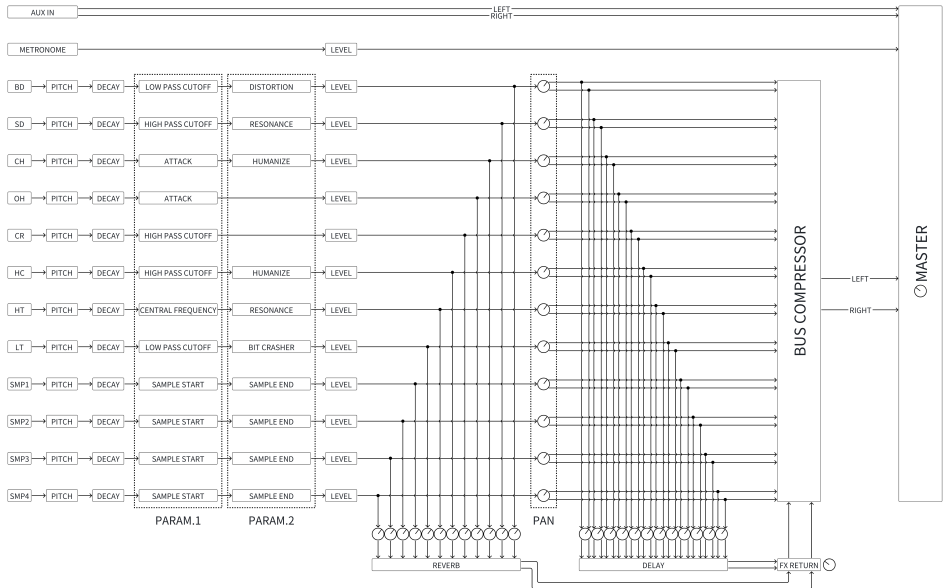
SAVE YOUR KITS

After loading all the samples you love, you can save your drum kit using **SAVE + KIT**. You will be able to choose where you want to save your kit and decide what name should be applied to it.

TIPS: Effect parameters are not saved within KIT. Instead, they are saved in BEAT for performance purposes.

GETTING DEEP-DIVE

1. AUDIO SIGNAL PATH



2. EFFECTS

There are 3 types of effects on Essential D1, channel effects, send & return effects and master effects. In this section, we will go through all the details about these effects.

2.1 CHANNEL EFFECTS

On Essential D1, every channel gets its specific effects for further tweaking your samples. Some effects are identical across all 12 channels while some effects are only located on specific channels.

2.1.1 PITCH

All 12 channels have its dedicated pitch control. Rotate the PITCH encoder to adjust the pitch of current sample, ranging from -12 semi-tone to +12 semi-tone. PITCH affects the sample pitch via changing the playback speed. Thus, lower value will also make the sample play longer, higher value will make it play shorter.

2.1.2 ENVELOPE

Each of 12 channels on Essential D1 featuring a dedicated envelope. Beside of CH & OH channels, which have both ATTACK and DECAY stage adjustable, other channels only get DECAY stage for user to adjust.

- **ATTACK [only for CH & OH, as PARAM.1]**

In envelope effects, attack stands for the time where level from zero to maximum. Shorter attack time will make the sound more punchy while longer attack time will usually let the sound more mellow. On Essential D1, ATTACK only appears on CH and OH channels, controlling via PARAM.1 encoder.

- **DECAY**

In envelope effects, decay stand for the time where level from maximum to zero. Each of 12 channels gets its dedicated control (DECAY encoder) on the decay parameter, ranging from 0.1 to 10 seconds. When set to 127, envelope will be bypassed and the sample will playback from start to finish without any impact on level.

2.1.3 FILTER

Each of 12 channels on Essential D1 featuring a dedicated envelope. Beside of CH & OH channels, which have both ATTACK and DECAY stage adjustable, other channels only get DECAY stage for user to adjust.

- **LOW-PASS FILTER, LPF [only for BD & LT, as PARAM.1]**

The low-pass filter is used for filtering out the high frequency content. Samples that run through this effect will become muffled, which is ideal for sounds like bass drum and low tom etc. The Essential D1 provides LP CUTOFF parameter controlled via PARAM.1 encoder. By rotating this encoder, you can adjust the filter cutoff point. Lower value will make the sound more muffled, while higher value will make the sound brighter.

- **BAND-PASS FILTER, BPF [only for HT, as PARAM.1& PARAM.2]**

Band-pass filter is used for filtering both the low and high frequency, leaving the mid frequency which emphasizes the body of the sound.

The Essential D1 offers both FREQUENCY and RESONANCE controlled via PARAM.1 and PARAM.2 encoders. FREQUENCY controls the central frequency of the band-pass filter. RESONANCE set the emphasis of the central portion.

- **HIGH-PASS FILTER, HPF [only for SD, CR, HC, as PARAM.1& PARAM.2]**

The high-pass filter is used for filtering out the low frequency content. Samples that run through this effect will become thinner, which is ideal for sounds like snare drum, cymbal and hand clap etc.

The Essential D1 provides HP CUTOFF parameter controlled via PARAM.1 encoder. By rotating this encoder, you can adjust the filter cutoff point. Lower value will make the sound fuller, while higher value will make the sound thinner.

On SD channel, there is also a RESONANCE controlled via PARAM.2 encoder for setting the emphasis of the cutoff frequency portion.

2.1.4 DISTORTION [ONLY FOR BD, AS PARAM.2]

On BD channel, there is a distortion effect. By adding more and more higher harmonic, even clipping the samples by the end, you can get much more aggressive result with it. To control the distortion amount, rotate the PARAM.2 encoder while the BD channel is selected.

2.1.5 HUMANIZE [ONLY FOR CH & HC, AS PARAM.2]

Humanize is a little bit more special compared to other channel effects. Instead of affecting the sound directly, it randomizes the step velocity set in SEQ mode.

When Humanize is active (HUMANIZE $\neq$ 0%), every note in CH (or HC) channel will have 70% chance to be triggered in a random velocity. The value of HUMANIZE determines how much the step velocity gets randomized. For a small HUMANIZE value, step velocity will only have a little shift. A higher HUMANIZE value will cause more dramatic change from the saved value.

PS: The HUMANIZE only affects the active notes in SEQ mode. When triggering note in PAD mode, you will not hear the effect that HUMANIZE makes.

2.1.6 BIT CRUSHER [ONLY FOR LT, AS PARAM.2]

By default, all of the samples in Essential D1 will playback in 16 bits. With bit crusher, you can quantize your sample into 12 bits or even 8 bits, to get a more lo-fi sound.

2.1.6 SAMPLE START & END POINT [ONLY FOR SMP1 ~ SMP4, AS PARAM.1 & PARAM.2]

SMP1 to SMP4 are designed to hold longer samples than other channels. Thus, the PARAM.1 & PARAM.2 for these 4 channels are used to control the sample start and end point.

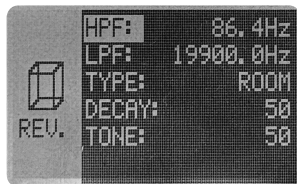
2.2 SEND & RETURN EFFECTS



The Essential D1 also features two send & return effects, reverb and delay, which all 12 channels share. Each channel can control its send amount via SHIFT + [REVERB SEND] and SHIFT + [DELAY SEND]. Both of the effects will mix together and input to next stage. The FX RETURN knob on the front panel controls the volume of output mixed signal. There are also couples of parameters for the REVERB and DELAY, located under

the MASTER FX page. Press MASTER FX and you will find REVERB and DELAY options.

2.2.1 REVERB



Under the REVERB sub-menu, there are couples of parameters for you to edit.

- **HPF:** Before sent signal run through the reverb effect, you can remove its low-frequency content via HPF (High-Pass Filter). This parameter is used for setting the cutoff frequency of the high-pass filter, ranging from 26Hz to 19,900Hz. Any content below the cutoff point will not input to the reverb effect, making the output more thinner.

- **LPF:** Before sent signal run throught the reverb effect, you can also remove its high-frequency content via LPF (Low-Pass Filter). This parameter is uesd for setting the cutoff frequency of the low-pass filter, ranging from 26Hz to 19,900Hz. Any content above the cutoff point will not input to the reverb effect, making the output more mellower.
- **TYPE:** The reverb on the Essential D1 features 4 types of algorithms. Each of them offers different types of soundscape. You can choose between ROOM, HALL, CHURCH and PLATE.
- **DECAY:** Using this parameter to set the decay time of the reverb signal, ranging from 0 to 100. Shorter value will result in smaller space, while longer decay time will give you a huge space.
- **TONE:** Use this parameter to further shape the output signal of the reverb effect. When set to 50, the TONE parameter will have no impact on the output signal. Lowering the value from 50 will make the sound more muffled while boosting the value from 50 will make the sound brighter.

To go back to the previous page, press SHIFT + [BACK].

2.2.2 DELAY



Under the DELAY sub-menu, there are couples of parameters for you to edit.

- **HPF:** Before sent signal run throught the delay effect, you can remove its low-frequency content via HPF (High-Pass Filter). This parameter is uesd for setting the cutoff frequency of the high-pass filter, ranging from 26Hz to 19,900Hz. Any content below the cutoff point will not input to the delay effect, making the output more thinner.
- **LPF:** Before sent signal run throught the delay effect, you can also remove its high-frequency content via LPF (Low-Pass Filter). This parameter is uesd for setting the cutoff frequency of the low-pass filter, ranging from 26Hz to 19,900Hz. Any content above the cutoff point will not input to the delay effect, making the output more mellower.

- **SYNC:** By turning on the sync function, delay effect will be synchronized to the master clock signal. The RATE parameter will turn into clock division instead of actual repeat time in the unit of millisecond.
- **TYPE:** The delay on the Essential D1 features 2 types of algorithms. Each of them offers different types of colors. You can choose between DIGI and BBD. DIGI stands for digital, providing crystal clear sound that found on modern delay effect unit. BBD, on the other hand, simulates the classic analog bucket brigade delay. Audio signal that run through this type of delay will lose its high frequency content on each feedback loop, resulting in a vintage texture of sound.
- **RATE:** Defines the repeat rate of the delayed signal. When SYNC is off, the repeat rate will be in milliseconds, ranging from 20ms up to 1,000ms. When SYNC is on, the repeat rate will turn into clock division, switching from 32nd triplets, all the way up to a whole note.
- **FEEDBACK:** Defines how much of output signal feeds back into the delay effect, ranging from 0% to 100%.

2.3 MASTER EFFECTS

2.3.1 BUS COMPRESSOR

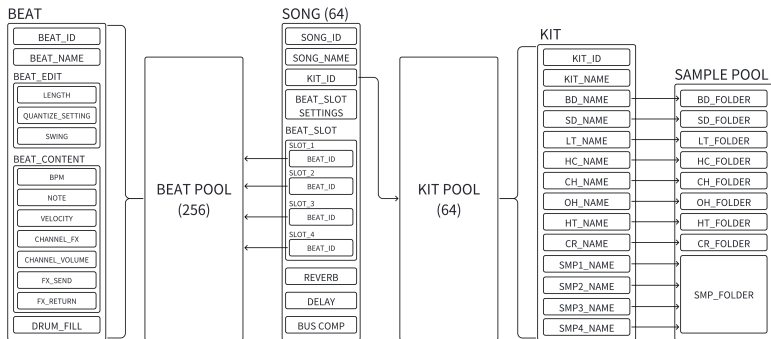


Also under the MASTER FX page, there is an option called BUS COMP. This is the only master effect in Essential D1 currently. BUS COMP is a master bus compressor located at the end of Essential D1's audio signal path. It offers a couple of parameters for you to shape the overall dynamic of your sounds.

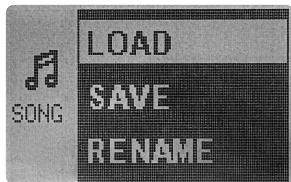
- **HPF:** There is a high-pass filter located in front of the detection circuit. By filtering out the high-level low-frequency portion, the compressor will compress the sound more gently, resulting in a more natural sound.
- **RATIO:** Defines how much the compression applies to the signal above the threshold. You can select from 1.5, 2.0, 3.0, 4.0, 5.0 and 10.0. Lower value means less compression resulting in a more natural sounding while higher value will make the compression more noticeable.

- **THRESHOLD:** Defines where compression begins. Signals above the threshold are attenuated by an amount specified by the **RATIO** parameter above.
- **MAKEUP:** Use this to adjust the volume of the output signal, ranging from -10dB to +10dB.
- **ATTACK:** Defines how long it takes to reach maximum compression once a signal exceeds the threshold, ranging from 0.5ms to 30ms.
- **RELEASE:** Defines how long the compression reduce to zero after the signal falls below the threshold, ranging from 100ms, all the way up to 1,200ms.

3. FILE STRUCTURE



3.1 SONG



SONG is the top level file in Essential D1. When powered up, Essential D1 will load up a SONG which contains all of the settings needed to get the sound going. The Essential D1 can hold up to 64 SONGs. The first 16 SONGs are pre-loaded factory content designed by Loopmasters.

Each SONG can hold 1 KIT and 4 BEATS at most via BEAT SLOT feature. Keep in mind that the SONG file only saves the IDs of the

KIT and BEAT, then search them in KIT POOL and BEAT POOL where the actual KIT and BEAT files are located via the IDs.

The settings of SEND & RETURN FX and MASTER FX, as well as the BEAT SLOT settings are also saved under the SONG.

3.1.1 LOAD A SONG

When powered up, the Essential D1 will automatically load a SONG. To load other SONG, press MENU, then select SONG to enter the sub menu. Select LOAD and you will be able to browse and load all 64 SONGs in the Essential D1 using the VALUE encoder.

3.1.2 RENAME A SONG



Under the sub menu of SONG, you can find a RENAME option.

Select it to rename the currently loaded SONG.

A SONG name can hold up to 9 characters. In the rename page, rotate VALUE encoder to select character. Use SHIFT + VALUE to edit the selected character. Press VALUE encoder to save the new SONG NAME.

3.1.3 SAVE A SONG

To save a SONG, press MENU and select SONG to enter the sub menu. Select SAVE via VALUE encoder. You will need to choose where you want to save the current SONG using VALUE encoder. Then rename the SONG as shown above.

3.2 KIT & SAMPLE POOL

Essential D1 can hold up to 64 KITs. The first 16 KITs are designed by Loopmasters as the Essential D1's factory content. A KIT file in Essential D1 contains all 12 channels' sample names. The device searches for the actual sample files in SAMPLE POOL using these names. Thus, it is important to think twice before renaming or deleting samples in Essential D1.

The SAMPLE POOL in Essential D1 is categorized into 9 folders for the following two reasons:

- a) Each channel gets its special effects designed for specific type of sound.
- b) The maximum sample length varies from channel to channel:

- i) BD, SD, LT, HC, CH, HT $\leq$ 3.4 seconds
- ii) OH, CR $\leq$ 11.6 seconds
- iii) SMP $\leq$ 58.6 seconds

Essential D1 has 4GB internal memory to store all your sample files. By using the DONNER CONTROL software, you can import your samples into the Essential D1. For more detail on the DONNER CONTROL software, please refer to the later section.

3.2.1 LOAD A KIT



Press KIT to access KIT page. Use VALUE encoder to browse and load up KIT.

3.2.2 EDIT A KIT

As shown above, KIT file in Essential D1 contains all 12 channels' sample names. When edit a KIT, you are choosing each channel's sample. Select the channel you want to change the sample. You can either hit the corresponding PAD directly or holding SHIFT to select the channel without triggering the sample playback. Then press down VALUE encoder to enter SMP SELECT page. Rotating VALUE encoder to scroll through the sounds. Press down the encoder to load the sample, or press SHIFT + [BACK] to exit SMP SELECT page without changing anything.

3.2.3 SAVE A KIT

After editing your KIT, press SAVE + KIT to save the edit. You will need to select where you want to save your KIT using VALUE encoder. And name the KIT in the following KIT RENAME page.



Just like the SONG. A KIT name can hold up to 9 characters. In the rename page, rotate VALUE encoder to select character. Use SHIFT + VALUE to edit the selected character. Press VALUE encoder to save the new KIT NAME.

You can press SAVE + KIT again to cancel the saving process and return to MAIN page at anytime.

3.3 BEAT SLOT

To extend the pattern length and make the Essential D1 more playable, BEAT SLOT is introduced. With this feature, you can load up to 4 BEATS in 1 SONG. While playing back, you can either switch between 4 BEATS manually or chain them together to get a 16 bars long pattern.

3.3.1 SWITCH BEAT SLOT

After editing your KIT, press SAVE + KIT to save the edit. You will need to select where you want to save your KIT using VALUE encoder. And name the KIT in the following KIT RENAME page.



In PAD mode (REC needs to be inactive), press BEAT + [1]~[4] to switch between SLOT_1 to SLOT_4. If the pattern is not playing, the BEAT SLOT should switch immediately. While the sequence is running, the switch will hold until next bar.

You can check the current selected BEAT SLOT at the MAIN page, via a number from 1 to 4 located on the upper right corner.

3.3.2 EDIT A KIT



As shown above, KIT file in Essential D1 contains all 12 channels' sample names. When edit a KIT, you are choosing each channel's sample. Select the channel you want to change the sample. You can either hit the corresponding PAD directly or holding SHIFT to select the channel without triggering the sample playback. Then press down VALUE encoder to enter SMP SELECT page. Rotating VALUE encoder to scroll through the sounds. Press down the encoder to

load the sample, or press SHIFT + [BACK] to exit SMP SELECT page without changing anything.

- **PLAYMODE:** It's possible to chain all 4 BEAT SLOTS in order to let them switch automatically while running pattern. Press MENU and select BEAT SLOT. Set the PLAYMODE to AUTO instead of MANUAL and you are ready to go.
- **GLOBAL BPM:** Every BEAT has its BPM setting. But sometime, you might want all BEATS within a SONG to play at the same speed. The GLOBAL BPM switch is designed to achieve this goal. By turning ON this option, the Essential D1 will ignore the BPM value saved in BEAT, instead, it will run all the BEAT at the speed of next parameter calls SONG BPM.

- **SONG BPM:** SONG BPM is saved under SONG instead of BEAT. When GLOBAL BPM is set to ON, the sequencer will playback all 4 BEAT SLOT at the speed set by this parameter.
- **METRO & METROVOL:** These two options are used to control the internal metronome which is useful for recording in finger drumming. METRO serve as the switch of the metronome. METROVOL is used to balance the volume between the metronome and the sample playback engine.

3.4 BEAT

Essential D1 can store 256 BEATs. The first 64 BEATs are pre-loaded as the factory content, designed by Loopmasters. While the factory BEATs are labeled in music genre that correspond to the factory KITs, it's possible and fun to combine different BEAT and KIT to get happy accident.

3.4.1 LOAD A BEAT



Press BEAT to enter BEAT SELECT page. Use VALUE encoder to scroll through the BEAT POOL and load the BEAT.

3.4.2 SAVE A BEAT

Press SAVE + BEAT to save the BEAT. You will need to select where you want to save your BEAT using VALUE encoder. And name the BEAT in the following BEAT RENAME page.



Just like the SONG. A BEAT name can hold up to 9 characters. In the rename page, rotate VALUE encoder to select character. Use SHIFT + VALUE to edit the selected character. Press VALUE encoder to save the new BEAT NAME.

You can press SAVE + BEAT again to cancel the saving process and return to MAIN page at anytime.

4. BEAT PROGRAMMING

As mentioned in SETTING UP AND GETTING STARTED section, Essential D1 features two mainstream workflows in drum machine world, finger drumming and step sequencing. This section will get you through the whole process of beat programming on Essential D1.

4.1 BEAT EDIT



- **Length:** It's recommend to do the basic setup of the BEAT before any actual programming was made. Press SHIFT + [EDIT] to enter the BEAT EDIT page. Here you can set the length of current loaded BEAT via the Length parameter, from 1Bar all the way up to 4Bar at maximum.
- **Step Velocity:** Is used for setting up the default velocity of newly active step while using the step sequencer. When you activate a

new step in SEQ mode, this value will be the velocity of the step by default. You can edit the step velocity later in PARAMETER LOCK page of course, more on that later.

- **Quantize:** Is used to set the quantization behavior when press down the QUANTIZE button. By default, this is set to None in order to prevent pressing QUANTIZE button by accident. Depends on how you want to quantize the notes, you can set this parameter before you press down QUANTIZE button to perform the quantization.

To exit BEAT EDIT page, press SHIFT + [EDIT] again.

4.2 TEMPO/TAP



It's also important to set up the beat tempo before recording. To do that, press TEMPO/TAP button to enter TEMPO page. The BPM of current BEAT is shown here, BPM: 120.0 etc. Rotate the VALUE encoder to set the BPM. Hold SHIFT and turn the VALUE encoder to change the BPM in the step of 0.1.

You can also set the BPM in tap tempo manner. Just hit the TEMPO/TAP button in the speed you want to set.

If there is no change for about 3 seconds, it will return to MAIN page automatically.

METRO: This parameter is used to show the status of the built-in metronome. You can turn on / off the metronome via pressing SHIFT + [METRO]. Metronome is useful when recording the BEAT in realtime which we will talk about it later.

4.3 FINGER DRUMMING

After setting up the beat length and tempo, it's about time to record our beat. Let's do it in finger drumming manner first. To record in realtime, press REC button to activate the beat record mode as the button will light up in red.

Then press PLAY button to start recording. There will be one bar count in with metronome (even though the METRO in TEMPO page is set to OFF) for you to get ready.

It's also possible to activate beat record mode while the BEAT is playing. In this situation, there will be no count in and will record your idea immediately.

4.4 QUANTIZE

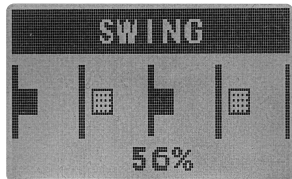
Human are not perfect. It's most likely that you will need to quantize your record after the realtime recording. In BEAT EDIT page (SHIFT + [EDIT]), you can set how tight you want the quantization take place. By default, it's set to None so you won't mess up the BEAT content by accident.

After setting up the Quantize in BEAT EDIT page, you can press QUANTIZE button to quantize all 12 channels for once. By holding QUANTIZE button and press one of the pads from BD to SMP4, you can quantize specific channel without messing up others.

It's also possible to quantize different channels with different quantize settings. Such as quantizing the BD in quarter note (1/4) while the CH in 16th note triplets (1/16T).

It's recommend to set the Quantize in BEAT EDIT page back to None when you don't need to quantize the BEAT in case you hit the QUANTIZE button accidentally.

4.5 SWING



Press SHIFT + [SWING] can access SWING page, where you can set the swing value for the current BEAT. Simply rotate the VALUE encoder to edit. The swing value is saved within the BEAT.

To exit SWING page, press SHIFT + [SWING] again.

4.6 STEP SEQUENCING

Essential D1 featuring a 64 steps (at most) step sequencer with PARAMETER LOCK and SUB STEP function. To edit the BEAT via step sequencer, you will need to press SHIFT + [SEQ] to enter SEQ mode first.

In SEQ mode, each of the 16 pads represents a step (16th note) in the sequencer. Press a pad will activate / deactivate a specific step. The active step will light up with color that match the channel. The selected channel will also shows on the screen.

4.6.1 SELECT CHANNEL

To switch to other channels in SEQ mode, hold SHIFT and press one of the 12 pads from BD to SMP4.

4.6.2 SWITCH PAGE

Every BEAT in Essential D1 can hold at most 64 steps, which means 16 pads can only show portion of steps. In this situation, switching page is needed. Hold SHIFT and press one of the 4 pads from [1] to [4] to switch between pages. Depends on the BEAT Length set in BEAT EDIT (SHIFT + [EDIT]), pads [2] to [4] might not light up as the BEAT does not contain enough steps.

4.6.3 PARAMETER LOCK



Press and hold one of the active steps for about 1.5 seconds will enter the PARAMETER LOCK page for the step. The pad will turn pink and the PARAMETER LOCK page will show up on the screen. Here you can set multiple parameters specific for the selected step. Pretty much every channel parameter and the step velocity can be locked step by step, making the BEAT more versatile.

In PARAMETER LOCK page, use VALUE encoder for navigation and editing parameter lock. The locked parameter will be indicated with "*" at the end, LP CUTOFF: 110* etc. Parameter that locked will remain the setting as the BEAT is playing, even if you change the parameter manually.

If you are happy about the setting, just press the selected step (pad) again to exit PARAMETER LOCK page. The pad will flash if any parameter is locked.

To delete the parameter lock, just deactivate and reactive the step via double press the pad.

4.6.4 SUB STEP



In PARAMETER LOCK page, there is a SUB STEP option. Select it via VALUE encoder will enter a sub-window where you can set multiple triggers within one step (16th note).

The SUB STEP extends the resolution of Essential D1's sequencer. Instead of triggering the notes in solid 16th note measure, you can either shift the trigger a little bit off-grid or place multiple triggers in one step.

In SUB STEP, one 16th note is divided into 12 equal sub-steps. Use VALUE encoder to select and activate / deactivate sub-steps. While all 12 sub steps share one parameter lock, each sub-step will get its dedicated step velocity. Hold SHIFT and rotate VALUE encoder can set the velocity of the selected active sub-step.

To exit the SUB STEP page, press SHIFT + [BACK] or press the pad lights in pink to return to the MAIN page.

4.6.5 SUB STEP

Essential D1 featuring a 64 steps (at most) step sequencer with PARAMETER LOCK and SUB STEP function. To edit the BEAT via step sequencer, you will need to press SHIFT + [SEQ] to enter SEQ mode first.

In SEQ mode, each of the 16 pads represents a step (16th note) in the sequencer. Press a pad will activate / deactivate a specific step. The active step will light up with color that match the channel. The selected channel will also shows on the screen.

4.7 CLEAR ALL & CLEAR PART

To clear all of the content in a BEAT, press and hold CLEAR ALL button for about 1.5 seconds. All 12 pads will flash to indicate all 12 channels are clear.

If you only want to clear one of the channels, Hold CLEAR PART and press one of the pads from BD to SMP4. Channel that clear will flash to indicate the content is clear.

4.8 UNDO

When switch between PAD and SEQ mode (SHIFT + [SEQ]), Essential D1 will save a snapshot of the current BEAT. Any change done afterward can be restore using the undo function. Press SHIFT + [UNDO] to apply the undo operation.

4.9 EDIT DRUM FILL

Every BEAT can hold two drum fills which can be triggered in PAD mode via FILL A & FILL B. You can program these drum fills as well. While in PAD mode, press REC + FILL A / FILL B to enter drum fill edit mode. FILL A / FILL B will flash in red, FA / FB will add to the end of the beat ID, BEAT.001FA etc.

In drum fill edit mode, you can edit the drum fill either in finger drumming manner or in step sequencing fashion.

Press REC + FILL A / FILL B to exit drum fill edit mode.

5 GLOBAL MENU



Press MENU to enter MENU page. Select GLOBAL via VALUE encoder. This sub-menu contains all the global settings.

5.1 CLK SRC (CLOCK SOURCE)

Select the clock source using this option. By default (CLK SRC = AUTO), the Essential D1 will switch to different clock sources accordingly. But you can also set the clock source manually. INT. stands for internal clock. When it set to DIN, the Essential D1 will only react to the clock signal received from the MIDI DIN port located at the rear panel. While USB will only receive the clock signal from USB port.

When using the external clock, the Essential D1 does not respond MIDI transport messages for more versatile use while performing with other gears. In this way, you can decide whether the Essential D1 follows the master device at the beginning, or joins at the middle of the performance. Thus, if you want the Essential D1 follows at the beginning, you will need to press PLAY/STOP before the master sequence start.

5.2 FADER MODE



The Essential D1 uses 4 faders to control 12 channels' volume. In a result, every physical fader needs to control 4 different channels, which will make sudden jumps in values. The fader mode is to define how the Essential D1 should react to those jumps. Three modes are offer, ABS, PICKUP and SCALE.

- **ABS:** As soon as the fader is moved, its value is sent immediately to set the volume of the selected channel. This will result in abrupt volume changes.
- **PICKUP:** Moving the physical fader has no effect until it reaches the value of the selected channel volume. As soon as they are equal, the fader controls the channel volume as normal.
- **SCALE:** This option provides smooth volume transitions. It compares the fader position to the channel volume and calculates a smooth convergence of the two as the fader is moved. As soon as they are equal, the channel volume tracks the fader position as normal.

5.3 PAD

This section sets how responsive the 12 velocity-sensitive pads are.

5.3.1 SENSITIVE

Use this option to set the overall sensitive of the pads. By default, it is set to NORM (Normal). If you want the pads feel heavier, switch to HARD. If you prefer lighter feel, choose SOFT instead.

5.3.2 CURVE

The velocity curve let you custom the pads more precisely. The Essential D1 offers 4 types of velocity curve. By default, it is set to LIN (Linear) to provide a balance across the whole velocity range. The LOG (Logarithmic) provides more precise control on higher velocity, while the EXP (Exponential) provides more precise control on lower velocity.

It's also possible to disable the velocity-sensitive, just set the curve into FIX.

FIX AT: When CURVE is set to FIX, this parameter will pop-up to let you set the fixed value of the note velocity, ranging from 1 to 127.

5.4 MIDI IN

This section sets how the Essential D1 responds the external MIDI messages.

5.4.1 PORTS

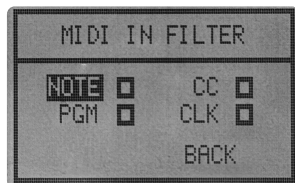
Use this parameter to decide the MIDI input port. By default is BOTH, which means the Essential D1 will react MIDI messages from both of the USB and MIDI DIN ports.

If you want the Essential D1 only react MIDI messages from the USB port, turn this parameter into USB. If you want the 5-pin MIDI DIN as the only port that inputs MIDI messages, then choose DIN.

5.4.2 CHANNEL

Use this parameter to set the MIDI IN channel. When set to OMNI, the Essential D1 receives all 16 channels MIDI messages. If you want the Essential D1 to only react specific channel, set to the corresponding value.

5.4.3 FILTER



By default, the Essential D1 receives 4 types of MIDI messages, NOTE, CC, PGM and CLK. In this sub-menu, you can ask the Essential D1 not to respond specific type of MIDI messages by clicking the checkbox.

5.5 MIDI OUT

This section sets how the Essential D1 sends MIDI messages to the external gears.

5.5.1 PORTS

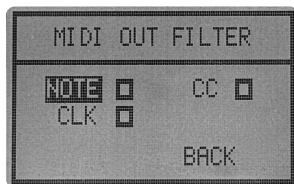
Use this parameter to decide the MIDI output port. By default is BOTH, which means the Essential D1 will send MIDI messages to both of the USB and MIDI DIN ports.

If you want the Essential D1 only send MIDI messages to the USB port, turn this parameter into USB. If you want the 5-pin MIDI DIN as the only port that transmit MIDI messages, then choose DIN.

5.5.2 CHANNEL

Use this parameter to set the MIDI OUT channel. If you want the Essential D1 to only send MIDI messages to specific channel, set to the corresponding value.

5.5.3 FILTER

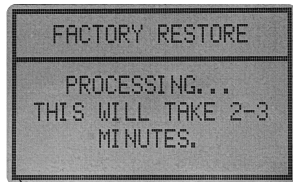
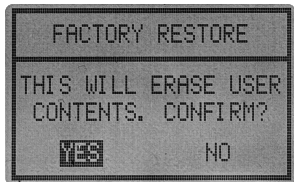


Use this parameter to set the MIDI OUT channel. If you want the Essential D1 to only send MIDI messages to specific channel, set to the corresponding value.

5.6 BRIGHTNESS

Here you can set the brightness of the RGB lights, ranging from LOW, NORM (Normal) to HIGH.

5.7 FIRMWARE



In this section, you can check the firmware version via the VER. value. The RESTORE option is used for restoring all the factory content of the Essential D1. And it will also erase all of the user content. The whole process will takes 2~3 minutes. The Essential D1 will reboot automatically after the restore.

SPECIFICATIONS

FUNCTIONAL SPECIFICATIONS

Sound Engine

- 12 channels sample playback engine
- Maximum Polyphony: 12 voices
- Samples Format: 44.1kHz, 16-bit, .wav
- Channel Effects: Pitch | Filter | Envelope | Distortion | Bit Crusher | Humanize | Pan
- Send Effects: Reverb + Delay
- Master Effect: Bus Compressor

Sequencer

- Maximum 64 Songs
- 4 Bars Step Sequencer (maximum 64 steps)
- Maximum 256 Beats

HARDWARE SPECIFICATIONS

Physical Controllers

- 128x64 pixel LCD screen
- 1 clickable endless encoder (VALUE)
- 5 endless encoders with touch function
- 2 potentiometers (FX RETURN & MASTER)
- 16 RGB backlit velocity-sensitive pads
- 4 RGB backlit faders
- 16 backlit tactile click buttons

Connectors	
● HEADPHONE OUT: 3.5mm(1/8") TRS ● AUX IN: 3.5mm (1/8") TRS ● 2x 5 pins MIDI DIN (IN, OUT) ● MAIN OUT: 2x 6.35mm (1/4") TS ● USB 2.0 Type-C socket (transfer MIDI data and remote control via Donner Control App)	
Power Supply	
● AC inlet: 100V - 240V, 50Hz - 60Hz, AC ● DC outlet: 9V 1A, center positive	
SOFTWARE COMPATIBILITY	
● Essential D1 is a class-compliant device. So it will work with any modern Mac or Windows PC without the need of a dedicated driver. ● For internal contents management, global settings and firmware update, you will need to download the Donner Control App on https://www.donnermusic.com/support/downloads	
RECOMMENDED AMBIENT OPERATING TEMPERATURE	
● 0°-35° C (32° - 95° F)	
DIMENSIONS	
● 270x130x41mm	● 620g