



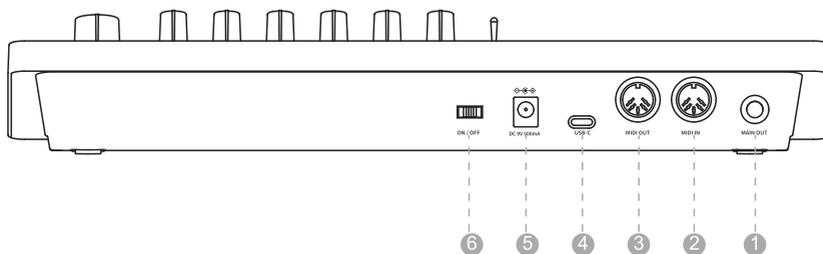
USER MANUAL

B1 ANALOG BASS SEQUENCER

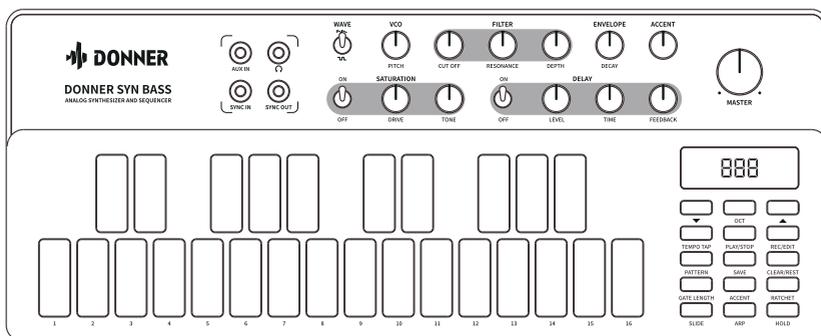
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PANEL INTRODUCTION



- ① **MAIN OUT:** 1/4" TS mono output connector that outputs overall signal and is controlled by Master knob.
- ② **MIDI IN:** MIDI input connector that inputs MIDI messages and can support the use of external MIDI devices.
- ③ **MIDI OUT:** MIDI output connector that allows you to output the MIDI signal from this unit to control other MIDI devices.
- ④ **USB-C :** Type-C connector that connects to the host computer for firmware updates and transmit USB MIDI data.
- ⑤ **POWER INPUT:** DC9V power input
- ⑥ **POWER SWITCH:** Power on/off.



- ① **AUX IN connector:** 1/8" TS audio signal connector that used for connecting other audio signals and outputting mixed signal with the sound of B1 through MAIN OUT jack and PHONES jack.
- ② **Headphone output interface:** 1/8" audio signal interface that used for connecting the headphones output. Turn Master knob can control the volume.
- ③ **Sync In interface:** connecting an external clock to start or stop signal.
- ④ **Sync Out interface:** connect and send internal clock to external device.
- ⑤ **Wave switch :** shifting between saw wave and square wave on the currently used oscillator.
- ⑥ **Pitch knob:** potentiometer with a detent at the center that controls oscillator frequency, with a range of fifth intervals lower on the left half and fifth intervals higher on the right half.
- ⑦ **Cutoff knob:** controlling the cutoff frequency of low-pass VCF filter, the larger the value of the knob means the higher the cutoff frequency.
- ⑧ **Resonance knob:** controlling the signal amplitude at the cutoff frequency point, the larger the knob value means the stronger the gain.

- 9 **Depth knob:** controlling the modulation depth applied by the envelope to the VCF cutoff frequency, the larger the knob value means the greater the depth.
- 10 **Decay knob:** controlling the amount of time of the envelope to decay from the current signal level to the minimum level, the larger the knob value means the longer the time.
- 11 **Accent knob:** adjusting the amount of Accent effect, the larger the value of the knob means the more obvious the Accent effect. (Only have an effect when notes programmed with an accent.)
- 12 **Saturation switch:** controlling the distortion effect.
- 13 **Drive knob:** controlling the level of distortion gain, the larger the value of the knob means the greater the gain.
- 14 **Tone knob:** controlling the brightness of the distortion tone, the larger the value of the knob means the brighter the tone.
- 15 **Delay switch:** controlling the delay effect.
- 16 **Level knob:** controlling the volume of the delay effect sound, the higher the value of the knob means the higher the volume of the effect sound.
- 17 **Time knob:** controlling the delay time of the delay effect, the larger the knob value means the longer the delay time.
- 18 **Feedback knob:** controlling the number of feedback of delay effect, the feedback number is 1 when the knob value is minimum, the greater the knob value means the greater the number of feedbacks.
- 19 **Master knob:** controlling the total output volume of the unit, the higher the value of the knob means the louder the volume.

SETTING OCTAVE

In octave setting mode, adjust the higher and lower octaves of the range.

- Press OCT to enter octave adjustment mode. The OCT button indicator flashes and the display shows the current octave value.
- Press ▲ or ▼ to adjust the octave value, the screen will display the upper and lower octaves value.
- The octave adjustment mode is automatically exited when no operation is performed for an extended period of time, and the octave adjustment mode can be exited by pressing OCT again.

SETTING TEMPO

There are two ways to adjust the Tempo value.

-The first way is Tap Tempo. You can change the Tempo by pressing the TEMPO TAP button 2 to 4 times in a row.

-If you need to adjust the Tempo value precisely, please refer to the second way below.

- Press the TEMPO TAP button once to enter tempo adjustment mode, the TEMPO TAP button indicator flashes and the display shows the currently set speed.
- Press ▲ or ▼ to adjust the Tempo value, which ranges from 40 BPM to 240 BPM.
If you press and hold ▲ or ▼, the Tempo value will change rapidly in succession.
- The Tempo adjustment mode is automatically exited when no operation is performed for an extended period of time, and the Tempo adjustment mode can be exited by pressing and hold TEMPO TAP for approximately 2 seconds.

KEYBOARD MODE

- In the keyboard mode (default mode), you can directly press the keys on the keyboard to play.
- Follow the steps below can set equipment parameters.

Accent	<ul style="list-style-type: none"> - Press the ACCENT button, the ACCENT button indicator turns on to indicate the accent (bass) effect is triggered. - To adjust the accent volume via the ACCENT knob on the panel, press the button on the keyboard, and an accent effect should be heard. - Press ACCENT again to turn off the accent function.
Hold	<ul style="list-style-type: none"> - Press the HOLD button, the HOLD button indicator turns on to activate the hold function. If released the button now, MIDI and sound will remain output. - Press the HOLD button again to turn off the hold function.

In addition, you can also use the “APP” or “Power On Commands” to set parameters such as Multi-trigger, key priority, etc. For details, please refer to the "APP" and "Power On Commands" sections.

CREATING A PATTERN

1. Activate the record function

- Short press REC/EDIT once, the REC/EDIT button indicator will turn on which indicate the record function is active while the step LED 1 will flash. (The current being step LED will keep blink during the record function).

2. Initialize the current pattern

- Press and hold the CLEAR/REST about 2 seconds to initialize the current pattern. (This operation will not change the stored pattern)

3. Enter a note to step 1

- Refer to the "Setting OCTAVE" section to set the keyboard octave range, then press the button on the keyboard and enter note.

4. Set the gate length

- Press the GATE LENGTH button to activate gate length setting mode.
- Press ▲ or ▼ to adjust the gate length value to 4.
- Press the GATE LENGTH button to exit gate length setting mode.

5. Add an accent to step 1

- Press the ACCENT button to add a brief volume and brightness emphasis to any step. In this case it is on Step 1. The ACCENT button indicator is on to indicate that an Accent has been added to this step.

6. Enter a note to step 2

- Refer to the "Setting OCTAVE" section to set a different keyboard octave range, then press the button on the keyboard and enter note.
- Step LED 2 is now flashing, indicating that it is being edited. In the meantime, Step LED 1 is stop flashing which indicate its values have been entered into the active pattern. This is called “Step-Write” behavior and means that any time you play a note or enter a Rest, the step is automatically advanced.

7. TIE step 2 to step 3

- Press the GATE LENGTH button to activate gate length setting mode.
 - Press ▲ or ▼ to adjust the gate length value to 8 (equivalent to "TIE").
 - Press the GATE LENGTH button to exit gate length setting mode.
- (a. If the note value of Step 3 is the same as Step 2, then the note is held through the step transition.
(b. If the note value of Step 3 is different from Step 2, the note is still held through the transition, but the effect is a legato phrase.

8. Enter a note to step 3

- Enter a new note that is different from Step 2. Step LED 3 is blinking, and the previous Step LEDs are stop flashing.

9. Set the gate length

- Press the GATE LENGTH button to activate gate length setting mode.
- Press ▲ or ▼ to adjust the gate length value to 1.
- Press the GATE LENGTH button to exit gate length setting mode.

10. Enter a note to step 4

- Enter a new note that is different from Step 3. Step LED 4 is blinking, and the previous Step LEDs are stop flashing.
- NOTE: When you enter a note, the Gate Length is updated from the previous step. This is useful if you are entering a pattern with steps that all have the same Gate Length. In that case you would only need to set the Gate Length when first entering a pattern.

11. Enter a rest for step 5

- Press CLEAR/REST. Step LED 5 is blinking, and the previous Step LEDs are stop flashing.

12. Enter a note to step 6

- Refer to the "Setting OCTAVE" section to set a different keyboard octave range. Then press the button on the keyboard and enter note. Step LED 6 is blinking and the previous Step LEDs are stop flashing.

13. Add a ratchet to step 6

- Press the RATCHET button to activate ratchet setting mode.
- Press ▲ or ▼ to select a ratchet value of 2, which will produce 2 notes during the step (up to 4 can be selected)
- Press the RATCHET button to exit ratchet setting mode.

14. Enter a note to step 7

- Then press the button on the keyboard and enter note. Step LED 7 is blinking and the previous Step LEDs are stop flashing.

15. Step 7 slide to step 8

- Press the SLIDE button, the SLIDE button indicator is on to indicate that the Slide of step 7 was turned on. Step 8 is the target value of the slide in this case.

16. Enter a note to step 8

- Refer to the "Setting OCTAVE" section to set a different keyboard octave range. Then press the button on the keyboard and enter note, Step LED 8 is blinking and the previous Step LEDs are stop flashing.

17. Exit the record function

- When you have completed your pattern, press REC/EDIT again to exit the Record function.

18. Run the pattern

- Refer to the " SETTING TEMPO " section to set the speed you want, and press PLAY/STOP.

Please see the following table for setting the params during the record function.

Set Gate length (note duration)	<ol style="list-style-type: none">1. Press the GATE LENGTH button, the GATE LENGTH button indicator flashes and the display shows the current gate length value.2. Press ▲ or ▼ to adjust the gate length value, the gate length value can be selected from 0 to 8 (i.e. 0/8 to 8/8). If pressing and holding ▲ or ▼, the gate length value will be adjusted rapidly in succession.3. Press the GATE LENGTH button to exit the gate length setting mode. <p>Note: Gate length is individually adjustable for each step A gate length of 0 is equivalent to "REST" A gate length of 8 is equivalent to "TIE"</p>
Set accent	<ol style="list-style-type: none">1. Press ACCEENT button once, the ACCEENT button indicator is on to indicate that the current step accent effect is on.2. Conversely, if the current step accent is on, press ACCEENT once and the ACCEENT button indicator goes off and the current step accent effect is turned off.
Set slide	<ol style="list-style-type: none">1. Press the SLIDE button once, the SLIDE button indicator turns on and the current step slide enable is turned on.2. Conversely, if the current step slide enable is on, press the SLIDE button once, the SLIDE button indicator goes off and the current step slide enable turns off.

Set ratchet
(repeats)

1. Press the RATCHET button, the RATCHET button indicator flashes and the display shows the current ratchet value.
2. Short press ▲ or ▼ to adjust the ratchet value. The ratchet value can be adjusted from 1 to 4. If pressing and holding ▲ or ▼, the ratchet value will be adjusted rapidly in succession.
3. Press the RATCHET button to exit ratchet setting mode.

Note.

Ratchet is individually adjustable for each step

The ratchet effect is more pronounced when the gate length value is small (but > 0).
When slide enable or gate length is 8 (tie), ratchet does not work.

Note:

By default (when not editing step parameters or Octave), press ▲ or ▼ can switch to previous/next step.

SAVING PATTERN

If the pattern saving operation is not performed, any changes to the pattern may be discarded. Please refer to the following steps to save the edited pattern if necessary.

- Press the SAVE button once to enter the save mode, the PATTERN button indicator and SAVE button indicator will flash and the display will show the current pattern position.
- To save to the current position, please press the SAVE button once again. The PATTERN button indicator, the SAVE button indicator and the display flash rapidly several times at the same time to indicate a successful saving.
- To save to another location, please press ▲ or ▼ to select a new pattern location (1 - 128), then follow step 2 to confirm the saving.

Note:

- * Failure to operate after a timeout will automatically exit save mode and discard saving.
- * Pressing and holding the SAVE button for about 2 seconds can exit the save mode and discard saving.

IMPORTING PATTERN

The last pattern used is imported by default for each time the device is turned on, or you can select another pattern to play by following the steps below. There are 128 patterns to choose from.

- When the PATTERN button indicator is on or flashing slowly, it indicates that it is currently in pattern selection mode, otherwise press the PATTERN button once to enter pattern selection mode and the display shows the current pattern value.
- Press ▲ or ▼ to adjust the pattern value, the pattern value range is from 1 to 128. If pressing and holding ▲ or ▲, the pattern value will be adjusted rapidly in succession.
- After selecting the desired pattern, release ▲ and ▼, and the device will automatically import the selected pattern.

Note:

- * Press and hold the PATTERN button for about two seconds to quickly re-import the current PATTERN.
- * a. If the current pattern is playing, the default is to wait for the current pattern to finish playing before playing the new imported pattern.
- b. If you need to play the newly imported pattern immediately, please change the pattern waiting setting in the APP.

PLAYBACK PATTERN (SEQUENCER)

- Refer to the "SETTING TEMPO" section to set the tempo value, then press PLAY/STOP to start playback and the PLAY/STOP button indicator will light up.
- The sequencer will play each step of the pattern in turn, and when it reaches the last step it will return to the first step and continue playing.
- The step LED corresponding to the step currently being played will flash. If you want to stop playback, simply press the PLAY/STOP button once.

The following operations on the sequencer can be performed during the sequencer playback.

Live transpose	<p>-During sequencer playback, you can press any button on the keyboard to achieve sequencer live transpose, and the corresponding button indicator will light up to indicate the current transpose position.</p> <p>Transpose's central reference button is the C button in the middle of the keyboard, so the sequencer's live transpose range is -12 to +12.</p> <p>Note:</p> <ul style="list-style-type: none"> * If the note transpose after the current playback step is out of range of the local CV output, it will be muted. * If the pattern saving operation is not performed, live transpose will not be saved.
Hold	<p>- Press and hold the HOLD button and the sequencer will keep playing the current step repeatedly until the HOLD button is released.</p>
Live accent	<p>- Press and hold the ACCENT button to automatically add an accent effect at each step of playback.</p> <p>- After releasing the ACCENT button, live accent turns off.</p> <p>Note: Live accent will not be saved.</p>
Live slide	<p>- Press and hold the SLIDE button to turn on slide function at each step of playback.</p> <p>- After releasing the SLIDE button, the live slide turns off.</p> <p>Note: Live slide will not be saved.</p>
Live ratchet	<p>- Press and hold the RATCHET button to activate the Live ratchet. You can press ▲ or ▼ to adjust the ratchet value and the sequencer will apply the ratchet value to each step.</p> <p>- After releasing the RATCHET button, the live ratchet turns off.</p> <p>Note: Live ratchet will not be saved.</p>
Live gate length	<p>- Press and hold the GATE LENGTH button to activate the Live gate length. You can press ▲ or ▼ to adjust the gate length value and the sequencer will apply the gate length value to each step.</p> <p>- After releasing the GATE LENGTH button, live gate length turns off.</p> <p>Note: Live ratchet will not be saved.</p>
Live mute (rest)	<p>- Press and hold the CLEAR/REST button will temporarily mute the sequencer output.</p> <p>- After releasing the CLEAR/REST button, live mute turns off.</p> <p>Note: Live mute will not be saved.</p>

REST Flip
(Toggle rest)

- Press and hold any step button (1-16) for about 2 seconds to flip the REST setting for that step during sequencer playback, .
- The step light goes out when REST ON, and lights up when REST OFF.

STEP EDIT MODE

Whether the sequencer is playing or not, you can enter the step edit mode and edit the parameters of the specified step.

- Press and hold the REC/EDIT button, then press any step button (1-16), the corresponding step LED will flash slowly to indicate the step editing mode is on. Then release the REC/EDIT button.
- At this point, you can refer to the "Creating Pattern" section and edit parameters like note, gate length and accent, slide on/off, ratchet, etc.
- Press the REC/EDIT button to exit step editing mode. You can also continue to edit other steps by following steps 1 and 2.

ARPEGGIATOR

- Press the ARP button and the ARP button indicator will light up to indicate arpeggiator mode.
- Refer to the "Setting TEMPO" section to set the tempo value.
- Refer to the "Setting OCTAVE" section to set the octave value.

Note: Press one or more buttons on the keyboard, the arpeggiator will repeat the pressed notes in the set order. If hold mode is not enabled, the arpeggiator stops playing when the button is released.

Arpeggiator Options	<ul style="list-style-type: none">- When you enter the arpeggiator, the display will show the current arpeggio options by default, and you can press ▲ or ▼ to switch from the 8 arpeggio options:<ol style="list-style-type: none">1. UP 12. DOWN 13. DOWN and UP4. RANDOM5. UP 2 (+ 1 Oct)6. DOWN 2 (+ 1 Oct)7. UP 3 (- 1 Oct)8. DOWN 3 (- 1 Oct)
Hold	<ul style="list-style-type: none">- Press HOLD and the HOLD button indicator will flash, at which point the arpeggiator will remain playing after the keyboard buttons are released.- Press the HOLD button again to turn off the hold function.
Gate Length	<ul style="list-style-type: none">- Press the GATE LENGTH button, the GATE LENGTH button indicator flashes and the display shows the current gate length value.- Press ▲ or ▼ to adjust the gate length value, which can be selected from 1 to 8 (1/8 to 8/8). If you press and hold ▲ or ▼, the gate length value will change rapidly in succession.- Press the GATE LENGTH button to exit the gate length setting mode.
Accent	<ul style="list-style-type: none">- Press the ACCENT button and the ACCENT button indicator will flash, at which point an accent effect will be added to each step when the arpeggiator is playing.- Press ACCENT again to turn off the accent effect.

Press the ARP button again, the ARP button indicator goes out, indicating that arpeggiator mode is exited.

MIDI DEVICE CONNECTIONS

B1 supports the universal MIDI standard protocol, which allows you to control external MIDI devices with the B1 and to control the B1 with external MIDI devices.

1. B1 connected to the computer via USB

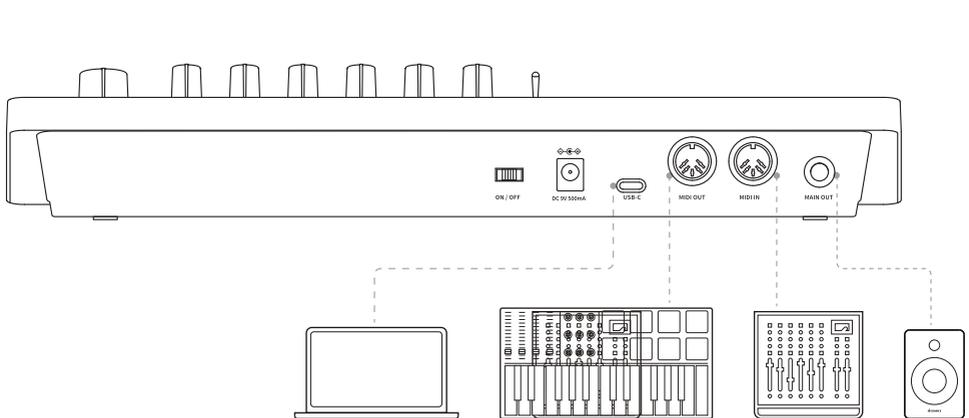
- B1 supports the standard USB MIDI protocol and you can connect the USB port of the B1 to the USB port of your computer with a USB cable.
- You will see the B1 in the list of MIDI devices on your computer when connected, without the need of installing any drivers.

2. Use external MIDI devices to control B1.

- If you want to control the B1 with an external MIDI keyboard, sequencer, or other MIDI devices, please use a MIDI cable to connect the MIDI OUT port of the external MIDI device to the MIDI IN port of B1.

3. Use B1 to control external MIDI devices

- If you want to use B1 keyboard, B1 sequencer or B1 arpeggiator to play sounds or control an external MIDI device, please use a MIDI cable to connect the MIDI IN port of the external MIDI device to the MIDI OUT port of B1.



MIDI-RELATED SETTINGS

You can set some MIDI-related parameters on the “APP” or the “Power on Commands”, please refer to “APP” and “Power on Commands” sections for details.

MIDI CHANNEL

- When exchanging data with an external MIDI device, you must ensure that the unit’s MIDI channel setting is the same as the MIDI channel setting of the external MIDI device, so as to exchange data correctly.

"LOCAL" OPTION

- The Echo Back setting of some external devices or computer DAW systems allows notes or other MIDI messages from the B1 to be quickly and easily transferred to other MIDI devices. However, when you play a note on the B1, the Echo back function of the external device may send the note message from the B1 back to the B1, which may cause the B1 to be triggered a second time. To avoid this problem, you can disconnect the LOCAL connection between the B1 and the external MIDI device via the "LOCAL" setting.

- In addition, you can turn off the local connection with keyboard and local devices via the "LOCAL" setting, so that pressing a button on the local keyboard will only output MIDI messages, while no sound will be played locally. This allows you to use the B1 as a MIDI keyboard without affecting the B1 itself. All "LOCAL" settings can be changed on the APP, please refer to the "APP" section for details.

MIDI IN TRANSPOSE

- The transpose setting allows you to transpose inputting note messages, and you can change this setting on the APP. For details, refer to the "APP" section.

ACCENT VELOCITY THRESHOLD

- When the velocity of the inputting MIDI note message is greater than the value set, the accent effect is automatically turned on. This setting can be changed on the APP. Refer to the "APP" section for details.

MIDI SOFT THROUGH

- The B1's MIDI soft through function can forward inputting MIDI messages to a designated port, and you can turn the relevant channel on or off on the APP.

- The main options are as follows. (Please refer to the "APP" section for details.)

1. DIN to DIN: Whether to forward received MIDI IN messages to MIDI OUT.
2. DIN to USB: Whether to forward the received MIDI IN messages to USB.
3. USB to DIN: Whether to forward received USB messages to MIDI OUT.

MIDI OUTPUT FORWARDING

- The B1's keyboard, sequencer and arpeggiator all output MIDI messages by default, and you can decide whether to output MIDI messages to MIDI OUT and USB via the APP.

- The main options are as follows. (Please refer to the "APP" section for details.)

1. Keyboard: Local keyboard (note message) output settings.
2. RT: Local synchronous clock message output setting.
3. Sequencer: Sequencer (note message) output setting.
4. Arpeggiator: Arpeggiator (note message) output settings.

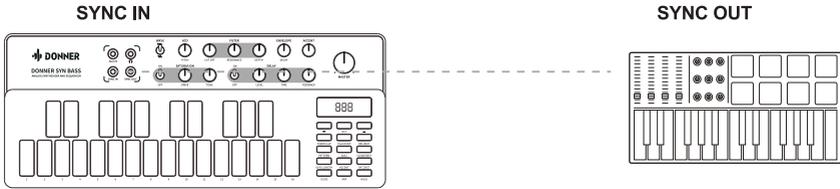
SYNCHRONIZING THE SEQUENCER/ARPEGGIATOR

- The Clock Source option on the APP allows you to set the B1 as the master (Internal) or the slave device (DIN/USB/TRG).

SYNC IN/OUT

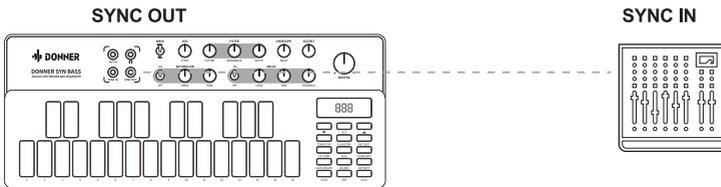
SYNC IN:

- Connect the SYNC IN connector of the B1 to the SYNC IN connector of an external device with a Sync Cable so that the B1 can be synchronized with the pulse signal of the external device.



SYNC OUT:

- Connect the SYNC OUT connector of the B1 to the SYNC IN connector of the external device with a Sync Cable, so that the B1 can output pulses and control the external device.
- Note that you also need to set the Clock Source of the slave device to TRG (or SYNC IN) and check whether the pulse type settings are match (1PPS/2PPQ/24PPQ/48PPQ, etc.) to ensure proper operation.



SYNC IN/OUT RELATED SETTINGS

CLOCK SOURCE

Commands" so that the B1 can synchronize with external devices.

- Note that SYNC OUT is on by default at all times, no additional setting is required.

SYNC POLARITY

- To complete synchronization of the B1 with external devices, the polarity of SYNC IN/OUT may need to be set as appropriate. This setting can be changed on the APP.

SYNC IN

- Rise - B1 will perform synchronization when the input pulse reaches the wave peak.
- Fall - B1 will perform synchronization when the input pulse reaches the wave trough.

SYNC OUT

- Rise -- B1 will output a pulse at the wave peak.
- Fall -- B1 will output a pulse at the wave trough.

SYNC RATE

- When in SYNC IN, this setting determines how much the sequencer or arpeggiator advances when the pulse signal is received.
- When in SYNC OUT, this setting determines how much of the sequencer or arpeggiator is advanced before outputting the pulse signal.
- This setting can be changed on the APP.

SYNC IN

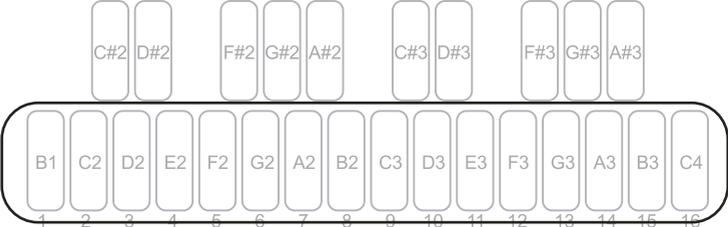
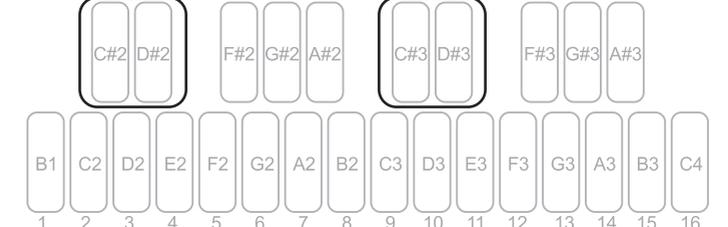
- 1PPS – Play 1 step per pulse.
- 2PPQ - Play 1/4 note every 2 pulses (KORG mode).
- 24PPQ - Play 1/4 note every 24 pulses.
- 48PPQ - Play 1/4 note every 48 pulses.

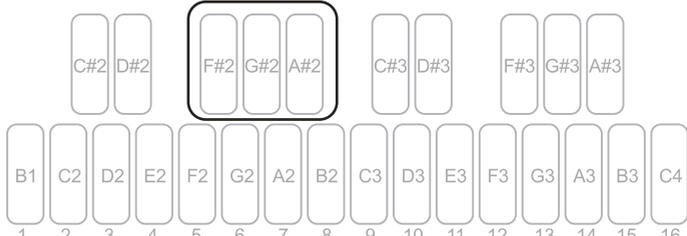
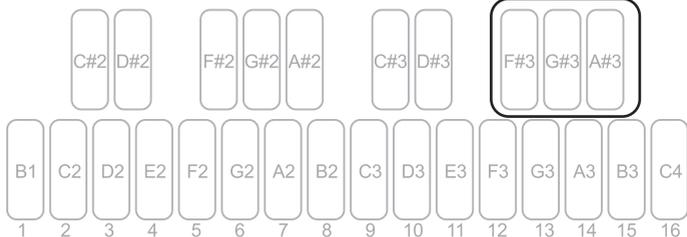
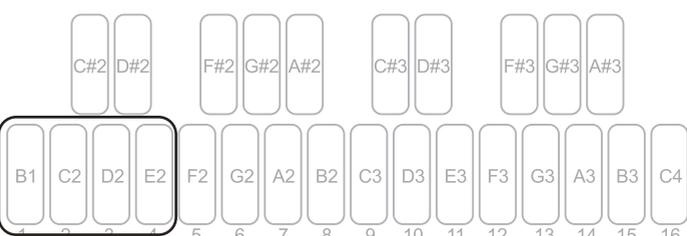
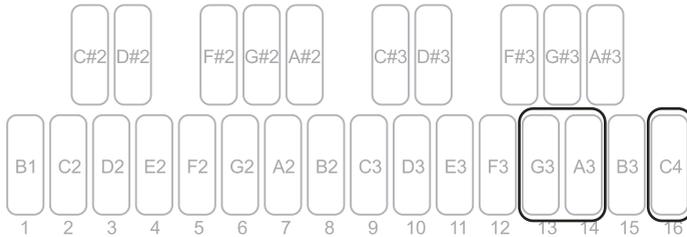
SYNC OUT

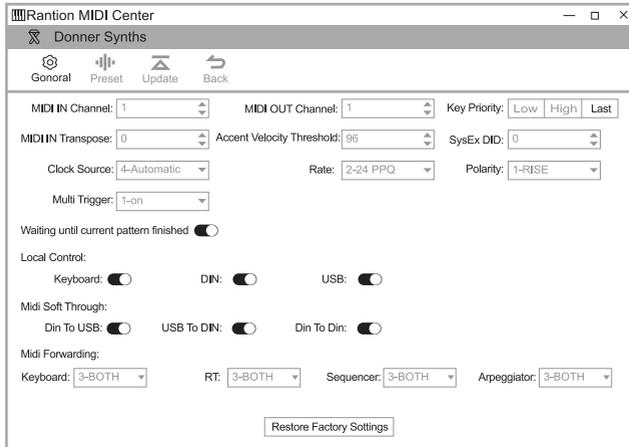
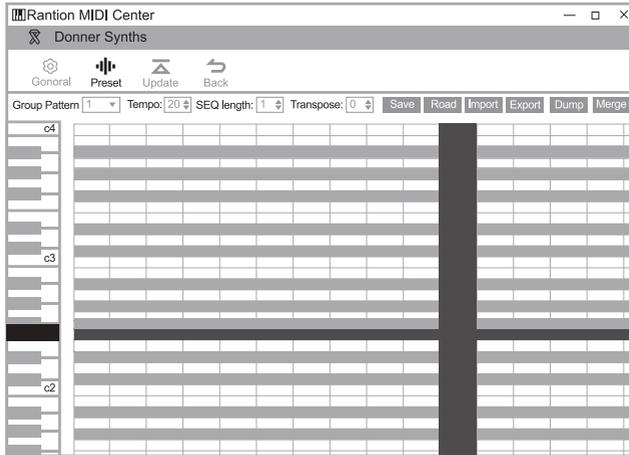
- 1PPS – Output 1 pulse per step.
- 2PPQ - Output 2 pulses per 1/4 note (KORG mode).
- 24PPQ - Output 24 pulses per 1/4 note.
- 48PPQ - Output 48 pulses per 1/4 note.

POWER ON COMMANDS

Pressing specific buttons before booting the device can change the MIDI channel, clock source, multi-trigger, button priority and other parameters. The following is a detailed description:

1	MIDI channel	 <p>Press and hold any of the step buttons from 1 to 16 to boot and set the MIDI channel value 1 to 16: Note: This will change both the MIDI input and MIDI output channels.</p>
2	Clock source	 <p>Press and hold any of C#2, D#2, C#3, D#3 to boot to set the synchronized clock source corresponding to: C#2 -- Internal D#2 - DIN C#3 -- USB D#3 - TRG</p>

3	Multi Trigger	 <p>Press and hold any of F#2, G#2, A#2 to boot to set the multi-trigger option corresponding to: F#2 -- Slide (multi trigger off) G#2 -- multi trigger on A#2 -- Legato (multi trigger off)</p>
4	Key Priority	 <p>Press and hold any of F#3, G#3, A#3 to boot to set the Key priority option corresponding to: F#3 -- Low G#3 -- High A#3 -- Last</p>
5	Factory Reset	 <p>Press and hold the B1, C2, D2 and E2 buttons simultaneously to boot the device to reset all device parameters (but not the saved pattern).</p>
6	Factory Reset and erase all patterns	 <p>Press and hold the G3, A3 and C4 buttons simultaneously to boot the device to reset all device parameters and stored Patterns. (Please use this function with caution as it cannot be restored after performing.)</p>



SYSTEM EXCLUSIVE DATA

In addition to the APP, you can also set each of the B1 parameters via MIDI System Exclusive.

The format of the System Exclusive data received by B1 is as follows:

F0 00 60 50 00 00 05 DID aa D0...Dn F7

Of which:

00 60 50 = Donner SYSEX ID number

00 00 05 = Unique ID for B1

DID = Device ID: 00-7F (0x00 to address all devices)

aa = packet number

D0...Dn = parameter payload

System Exclusive Table:

Packet number	Parameter payload	Function
0E	D0 D1 D2	Set MIDI channel (software channel). D0 = Reserved, set it to '0' D1 = TX channel value 0-15 for channel 1-16 D2 = RX channel value 0-15 for channel 1-16. 16 means all channels
0F	D0	Set MIDI in transpose. D0 = transpose value 0 - 24 for transpose -12 to + 12 (value 12 is no transpose)
12	D0	Set key priority. D0 = Key priority, 0—Low, 1—Hight, 2--Last
14	D0 D1	Set multi trigger. D0 = Multi trigger, 0-off (slide), 1-on, 2-off (legato) D1 = Reserved, set it to '0'
17	D0 D1 D2 D3 D4 D5 D6	Set midi forwarding. D0 = Keyboard midi forwarding:0 - OFF, 1 –DIN, 2 – USB, 3 -BOTH D1 = Sequencer midi forwarding:0 - OFF, 1 –DIN, 2 – USB, 3 -BOTH D2 = Arpeggiator midi forwarding:0 - OFF, 1 –DIN, 2 – USB, 3 -BOTH D3 = Realtime midi forwarding:0 - OFF, 1 –DIN, 2 – USB, 3 -BOTH D4 = Reserved, set it to '0' D5 = Reserved, set it to '0' D6 = Reserved, set it to '0'
19	D0 D1	Set sync clock polarity. D0 = Sync polarity, 0 – fall, 1 – rise D1 = Reserved, set it to '0'
1A	D0	Set sync clock rate D0 = clock rate, 0 – 1 PPS, 1 – 2 PPQ, 2 – 24 PPQ, 3- 48 PPQ,
1B	D0	Set sync clock source. D0 = clock source, 0 – Internal, 1 – MIDI, 2 – USB, 3 – TRIG, 4 – Automatic
1C	D0	Set accent velocity threshold. D0 = Accent velocity threshold, value 0–127
28	D0 D1 D2	Set midi soft through configuration. D0 = DIN to USB, 0 – Disable, 1 – Enable D1 = DIN to DIN, 0 – Disable, 1 – Enable D2 = USB to DIN, 0 – Disable, 1 – Enable

2F	D0 D1 D2	Set local control configuration. D0 = Keyboard local control, 0 – Disable, 1 – Enable D1 = DIN local control, 0 – Disable, 1 – Enable D2 = USB local control, 0 – Disable, 1 – Enable
32	D0 D1	Set pattern waiting configuration D0 = Waiting until current pattern finished 0 – NO, 1 – YES D1 = Reserved, set it to '0'
7D	None	Restore factory settings

System Exclusive Example:

Packet number	System Exclusive Packet	Function
0E	F0 00 60 50 00 00 05 00 0E 01 00 01 F7	Set MIDI TX channel as 1, RX channel as 2
0F	F0 00 60 50 00 00 05 00 0F 0C F7	Set MIDI in transpose as 0 (no transpose)
12	F0 00 60 50 00 00 05 00 12 01 F7	Set key priority as HIGHT
14	F0 00 60 50 00 00 05 00 14 02 00 F7	Set multi trigger as off (legato)
17	F0 00 60 50 00 00 05 00 17 01 02 03 00 00 00 00 F7	Set keyboard midi forwarding as DIN. Set sequencer midi forwarding as USB. Set arpeggiator midi forwarding as BOTH. Set real time midi forwarding as OFF.
19	F0 00 60 50 00 00 05 00 19 01 00 F7	Set sync clock polarity as RISE.
1A	F0 00 60 50 00 00 05 00 1A 02 F7	Set sync clock rate as 24 PPQ
1B	F0 00 60 50 00 00 05 00 1B 04 F7	Set sync clock source as AUTO
1C	F0 00 60 50 00 00 05 00 1C 7F F7	Set accent velocity threshold as 7F (accent off)
28	F0 00 60 50 00 00 05 00 28 00 01 01 F7	Set midi DIN to USB through as DISABLE Set midi DIN to DIN through as ENABLE Set midi USB to DIN through as ENABLE
2F	F0 00 60 50 00 00 05 00 2F 01 00 01 F7	Set keyboard local control as ENABLE. Set DIN local control as DISABLE. Set USB local control as ENABLE.
32	F0 00 60 50 00 00 05 00 32 01 00 F7	Set pattern waiting configuration as YES.
7D	F0 00 60 50 00 00 05 00 7D F7	Restore factory settings

Please check the official website regularly for firmware updates, which can be downloaded and stored on your computer, and then used to update the device with detailed instructions about the update process.

B1 ANALOG BASS SEQUENCER SPECIFICATION

Synthesizer Architecture	
Number of voices	Monophonic
Type	Analog
Oscillators	1
VCF	1 low pass
Envelopes	1
Connectivity	
Power input	DC input connector
Power switch	Slide switch on/off
MIDI IN/OUT	MIDI In and MIDI Out, 5-pin DIN
USB (MIDI)	USB 2.0, type C
Outputs	Line output: 1/4" TRS, unbalanced, max. +16 dBu
Output impedance	1.5 k Ω
Headphones	3.5 mm TRS, max. 125 mW@32 Ω
Headphones output impedance	10 Ω
USB	
Type	Class compliant USB 2.0, type C
Supported Operating Systems	Windows 7 or higher / Mac OS X 10.6.8 or higher
Inputs and Outputs (TS 3.5 mm)	
Inputs	AUX in: maximum input +5 dBu
	Sync in: More than 2.5 V
Power Requirements	
External power adaptor (use only the supplied adaptor)	9 VDC 500 mA inner positive
Power consumption	2.25W maximum
Environmental	
Operating temperature range	5°C – 40°C (41°F – 104°F)
Physical	
Dimensions (H x W x D)	54*323*130mm (2.1 x 12.7 x 5.1")
Weight 0.8 kg (1.8 lbs)	0.62kg(1.37 lbs)
Shipping weight 1.4 kg (3.1 lbs)	0.95kg(2.09 lbs)



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