ENGLISH

KORGW A V E D R U M

Global Edition

Quick Start Guide

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Thank you for purchasing the Korg WAVEDRUM Global Edition dynamic percussion synthesizer.

This owner's manual contains a great deal of information that will help you understand the WAVEDRUM and play it to its fullest potential. In order- to ensure that you are taking complete advantage of your WAVEDRUM, please read this manual carefully and use the product as directed.

Precautions

Location

Using the unit in the following locations can result in a malfunction.

- · In direct sunlight
- · Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- · Locations of excessive vibration
- Close to magnetic fields

Power supply

Please connect the designated AC adapter to an AC outlet of the correct voltage. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Interference with other electrical devices

Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Keep this manual

After reading this manual, please keep it for later reference.

Keeping foreign matter out of your equipment

Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock.

Be careful not to let metal objects get into the equipment. If something does slip into the equipment, unplug the AC adapter from the wall outlet. Then contact your nearest Korg dealer or the store where the equipment was purchased.

THE FCC REGULATION WARNING (for USA)

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If items such as cables are included with this equipment, you must use those included items.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment

Notice regarding disposal (EU only)



When this "crossed-out wheeled bin" symbol is displayed on the product, owner's manual, battery, or battery package, it signifies that when you wish to dispose of this product, manual, package or battery you must do so in an approved manner. Do not discard this prod-

uct, manual, package or battery along with ordinary household waste. Disposing in the correct manner will prevent harm to human health and potential damage to the environment. Since the correct method of disposal will depend on the applicable laws and regulations in your locality, please contact your local administrative body for details. If the battery contains heavy metals in excess of the regulated amount, a chemical symbol is displayed below the "crossed-out wheeled bin" symbol on the battery or battery package.

Cautions for use

Each individual WAVEDRUM unit will differ slightly depending on the type of head used, how it is tuned or played, and how it has been maintained. Please take note of the following points as well as the preceding "Cautions for safety."

Do not place heavy objects on the head for long periods

If pressure is applied to the surface of the head for a long period, the rubber cushion and sensor under the head will become deformed, and this can harm the playability of the instrument.

Avoid placing heavy objects on the head or placing the WAVEDRUM upside down for long periods.

Feedback

The sensors in the WAVEDRUM detect the vibrations that occur in the head and body when you strike the WAVEDRUM with your hand or a drum stick. In some situations, the WAVEDRUM may also act as a microphone and pick up loud sounds from nearby high output speakers in addition to vibrations produced by directly striking the WAVEDRUM.

Especially when monitoring the WAVEDRUM with a large PA setup, the WAVEDRUM sounds emitted by the speakers can be transmitted through the floor or stand (or directly through the air) and be picked up once again by the WAVEDRUM.

When such vibrations are detected by the WAVEDRUM and sent back through the speakers, feedback will occur, and an uncontrollable and continuous sound will result. Feedback places severe stress on amps and speakers, and can cause serious damage to equipment. Thus, when a powerful monitoring system is used, the equalizers and limiters of the PA system should be adjusted to prevent the WAVEDRUM from producing feedback, similar to preventing feedback for vocal and acoustic instrument mics.

Data handling

Unexpected malfunctions can result in the loss of memory contents. Korg cannot accept any responsibility for any loss or damage which you may incur as a result of data loss.

About the documentation

How the documentation is organized

The WAVEDRUM Global Edition comes with the following documentation.

- Quick Start Guide (printed, PDF) (this document)
- Parameter Guide (PDF)

The Quick Start Guide provides a concise explanation of the WAVEDRUM's main functions. Read this first. The Parameter Guide explains all of the WAVEDRUM's parameters and algorithms. Refer to this guide when you want to learn more about a specific parameter. These guides are provided as PDF files on the included accessory disc.

Abbreviations for the manuals

In the documentation, references to the manuals are abbreviated as follows.

QS: Quick Start Guide **PG:** Parameter Guide

^{*} This product was developed under license of physical modeling tone generator patents (http://www.sondius-xg.com) owned by Stanford University USA and Yamaha Corporation.

^{*} All product names and company names are the trademarks or registered trademarks of their respective owners.

Introduction

Main features

Revolutionary synthesis technology

The WAVEDRUM generates sound by detecting the sound of your strike via the head and rim sensors, and processing this audio source by DSP (Digital Signal Processing) sound synthesis technology to create unique sounds. At the same time, a PCM sound source is also played using your strike as the trigger.

Using this combination of methods, the WAVEDRUM produces a rich variety of percussion sounds that give you an extremely wide range of freedom for performance expression. By using subtle motions of your fingers or hand to strike, rub, or scratch the WAVEDRUM, or by playing it using sticks, mallets, or brushes, you can obtain a high degree of expressive and dynamic range that rivals that of acoustic drums or percussion instruments.

Unique sounds generated by 60 different algorithms

The WAVEDRUM uses DSP technology to carry out a variety of software synthesis methods including analog, additive, non-linear, and physical modeling, and combines these sounds to create the final output sound. Such combinations are called "algorithms," and the WAVE-DRUM contains 60 different single-size and double-size algorithms. The WAVEDRUM Global Edition gives you the 36 algorithms of the WAVEDRUM (WD-X) as well as the 9 algorithms for Middle Eastern percussion instruments from the WAVEDRUM ORIENTAL, plus 15 highly versatile drum/percussion algorithms such as Snare, Conga, Djembe, and Cajon. By specifying different algorithms you can create completely new sounds that can be produced only by the WAVEDRUM, as well as a variety of instrumental sounds or sounds of nature.

400 different PCM instruments for the head and rim

The PCM instruments (PCM sound sources produce a rich variety of sounds in addition to the algorithms. Programs that use a single-size algorithm allow you to freely assign a different algorithm and PCM instrument to the head and the rim, giving you a very broad array of sounds. Programs that use a double-size algorithm are optimized for simulating acoustic instruments such as a snare, djembe, or cajon; within the algorithm, these programs analyze your performance in realtime, and based on this analysis, they control the PCM instrument to create natural response that cannot be obtained from a conventional PCM sound generator.

200 preset programs, 200 user programs

There are 200 built-in preset programs that combine percussion, drums, and sound effects in complex ways that can produce completely different sounds according to your playing technique. Programs that you edit can be saved in the 200 user programs.

Live mode

You can register twelve frequently-used programs (four programs x three banks) in buttons 1–4 for immediate recall. This is convenient for live performances.

140 loop phrases

The built-in 140 loop phrases cover a broad range of genres and tempos, allowing you to play along for a one-person jam session.

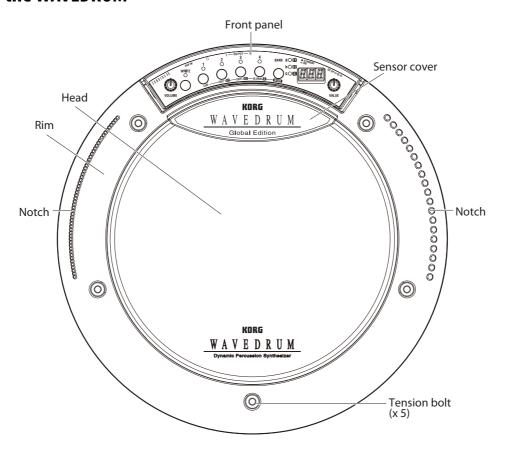
AUX IN connector

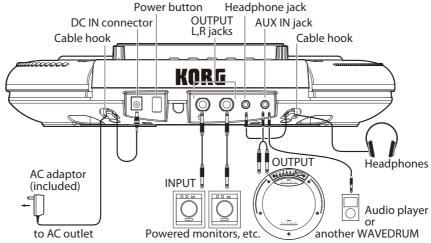
The AUX IN connector lets you connect another WAVE-DRUM unit, an audio device, or an external sound module, and play along with that audio source.

Lightweight and compact design

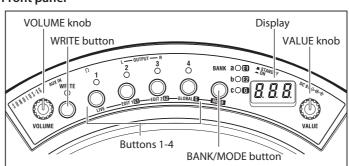
The WAVEDRUM features a lightweight and compact design for comfortable playing on your lap as well as easy portability. You can also perform with it attached to a stand (sold separately) for stand-up performance (Percussion Stand ST-WD) or a commercially-available snare stand.

Parts of the WAVEDRUM





Front panel



Preparations

Connecting audio devices



Refore you connect the Wavedrum Global to other equipment, you must turn down the volume of all equipment and turn off the power. Careless operation may damage your speaker system or cause mal-

Please refer to the preceding page for a diagram of connections.

Connecting the output jacks to powered monitors or a mixer

Connect the WAVEDRUM's OUTPUT L, R jacks to the input jacks of your powered monitors or mixer. If you're monitoring through headphones, connect your headphones to the WAVEDRUM's headphone jack. The VOLUME knob adjusts the L & R OUT-PUT as well as the headphone volume.

Connecting an audio device to the input jack

You can connect the OUTPUT L, R jacks of a second WAVEDRUM unit or the output jacks of other audio devices or to the WAVEDRUM's AUX IN jack. The sound that is input via this jack will be output from the OUTPUT L, R jacks and the headphone jack.

note: To input sound from a device that's connected to the AUX IN jack, you must go to Global mode and raise the AUX IN jack mix level appropriately. The mix level is 0 by default (See PG page 7).

& Sudden transient peaks in volume produced by the WAVEDRUM can damage your monitoring equipment, or your hearing if you're monitoring through headphones. Please be sure to set the volume appropriately.

Turning the power on

Connecting the AC adapter

- **1.** Connect the included AC adapter to the WAVE-DRUM's rear panel DC IN jack.
- Let Use only the included AC adapter. Using any other AC adapter may cause malfunctions.
- 2. Plug the AC adapter into an AC outlet.
- Be sure to use an AC outlet that is the correct voltage for the adapter.
- 3. To prevent the plug from being accidentally disconnected, secure the power cable by wrapping it around the WAVEDRUM's cable hook.

Turning the power on

1. Make sure that the WAVEDRUM and any connected equipment is powered off, and that all volume controls are set to 0.

- 2. Power-on the equipment that's connected to the AUX IN jack.
- **3.** Press the WAVEDRUM's power button to turn it on.
- When powering-on the WAVEDRUM, do not rest your hand or any other object on the head. The WAVEDRUM may malfunction if this is the case.
- 4. Turn on your powered monitors or other equipment connected to the OUTPUT L, R jacks.
- **5.** Adjust the volume of each device. Adjust the WAVEDRUM's volume by turning its VOLUME knob. If you're using the AUX IN jack, use the mix level setting to adjust its volume (See PG page 7).

Turning the power off

When you've completed any necessary steps such as saving a program that you were editing, turn off the power by following the procedure below (See QS page 9).

- Never turn off the power while data is being saved. Internal data may be destroyed if you do so.
- 1. Minimize the volume and then power off your powered monitors or other equipment that is connected to the OUTPUT L, R jacks.
- 2. Turn the WAVEDRUM's VOLUME knob all the way to the left, and hold down the power button until the display goes blank (approximately one second).
- 3. Power off the power to any equipment connected to the AUX IN jack.

Auto-Off function

The WAVEDRUM Global Edition provides an auto power-off function.

The auto power-off function will automatically turn off the power when there has been no user input (except for the Volume control) for approximately four hours. If desired, you can disable the auto power-off function. See PG page 6 for the procedure. By default, auto power-off is enabled.

Attaching the WAVEDRUM to a stand

The WAVEDRUM can be used with any commerciallyavailable 14-inch three-arm snare stand.

If you want to play the WAVEDRUM in a standing position, like a conga, you can use the optional Percussion Stand ST-WD (sold separately).

Replace the stand on a flat and stable location. Bundle the power adapter and all connection cables neatly so that no one trips over them.

For details on attaching the WAVEDRUM to your stand, carefully read the owner's manual included with the stand that and as described.

Performing

Performance techniques

The sound of the WAVEDRUM will respond to the subtle nuances in the way that you strike, rub, or scratch it with your fingers or hand, or the way that you strike it with a stick, mallet, or brush. It will also respond differently depending on whether you strike the center of the head, the edge, or the rim. The WAVEDRUM produces expressive and dynamic range that rivals that of an acoustic drum or percussion instrument, covering the full spectrum of performance gestures from a light brush across the head to a hard rimshot.

Some of the programs simulate conventional percussion instruments, while others produce a different pitch each time you strike; some allow you to play a phrase in a specified scale. You can use a variety of techniques; after striking the surface of the head with your hand or mallet, you can apply additional pressure to control the pitch or tone of the decay, or you can produce sustaining sounds simply by applying pressure without striking the drum.

For details on each program, refer to the "Voice Name List" and to PG page 8 and following of this manual.

Let Do not strike below the sensor cover or on the front panel area.

Selecting programs

1. Hold down the BANK/MODE button and press button 1.

This selects Live mode, which is the mode you'll use when playing the WAVEDRUM. The display will indicate L ! U, and will then indicate the program number (000-199, P. 00-P. 99-9. 00-9. 99). note: Immediately after you turn on the power, the program stored in button 1 of bank a will be selected.

2. Press the BANK/MODE button to switch banks.

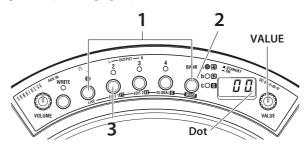
Each time you press the button, you'll switch banks in the order of $a\rightarrow b\rightarrow c\rightarrow a...$ The indicators at the right of the button will light up consecutively. The display will indicate the bank name, or the program number for the bank of the program that is currently selected.

3. Press a button 1–4 to select the program that you want to play.

The indicator above the selected button will light up. and the display will indicate the program number. Strike the head or rim to hear the selected program.

4. If you want to select a program from a different bank, repeat steps 2 and 3 to select the desired program.

note: The WAVEDRUM contains loop phrases, such as drum phrases. You can play along with these loop phrases (See PG page 7).



Playing all programs consecutively

When the display shows the program number, turning the VALUE knob will cycle through the programs consecutively (000-199, P. 00-P. 99-9, 00-9, 99).

If a program number has been changed, the decimal point to the right of the program number in the display will light up. If you want to return to the original program that was assigned, press the button whose indicator is lit.

About the programs

The WAVEDRUM contains two hundred user programs (000-199) and two hundred preset programs (P. 00-P. 99-9.00-9.99). User programs, on the other hand, can be used to save a program that you've edited. You cannot rewrite preset programs. By default the user programs contain the same programs as the preset programs.

Assigning programs to buttons 1–4

You can assign your favorite programs to buttons 1–4, which are assignable locations. You can assign a total of 12 programs (1–4 for banks a, b and c) for quick access.

1. Select the bank and button that you want to assign.

As an example, here's how to assign bank a button 1. Press the BANK/MODE button to select bank a, and then press button 1.

- 2. Turn the VALUE knob to select the program that you want to assign.
- **3.** Press the WRITE button. The indicator above the button will blink, and the display will blink to indicate the newly assigned bank and button number 3 - ∤ and the program number.
- 4. Press the WRITE button once again to complete the assignment.

If you decide not to assign the program, press any button other than the WRITE button.

Editing

By editing a program you can adjust it to suit your playing style, or transform it into a completely new sound. For example, you can adjust the pitch or the decay time to match your song or your playing method, or you can select the way that different strikes will affect the volume or tone. You can also adjust reverb and delay effects.

By adjusting the algorithm parameters you can make more detailed changes to the sound or even transform the sound radically. For example, even with the same algorithm, it's possible to create a range of variation not possible with a typical percussion instrument, such as changing the head of a drum from skin to metal. You can also switch the algorithm itself or choose a different PCM instrument, and create sounds from scratch.

The process of making these changes is called "editing." On the WAVEDRUM, you can edit using the Edit modes described below.

Basic editing procedure

note: In order to edit a program, you must first select the program that you want to edit in Live mode (*See OS page 7*).

1. Select the desired Edit mode.

Edit 1: Hold down the BANK/MODE button and press button 2. The display will indicate E d ! for several seconds.

In Edit 1 mode you can adjust parameters such as Tune, Decay, Level, Curve, and Effect (reverb, delay), and select the algorithm and PCM instrument (*See PG page 3*).

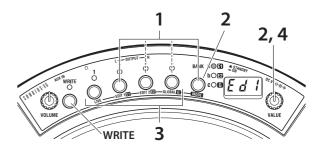
Edit 2: Hold down the BANK/MODE button and press button 3. The display will indicate E & ? for several seconds.

In Edit 2 mode you can adjust the algorithm (*See PG page 5*).

Global: Hold down the BANK/MODE button and press button 4. The display will indicate ££ b for several seconds.

In Global mode you can adjust the final panning, play back looped phrases, and adjust the WAVEDRUM's calibration (*See PG page 6*).

note: In Edit 1 and 2 modes you'll be editing the sound of an individual program. In contrast, the settings in Global mode are common to the entire WAVEDRUM; they are not specific to an individual program.



For details on each mode, please refer to the respective reference pages.

The [E1], [E2], or [G] indicator at the right of the BANK/MODE button will blink.

If you select Edit mode 1 or 2, the display will indicate $E d \cdot I$ or $E d \cdot Z$, and will then indicate the current page.

In Global mode, the display will indicate ££ b, and will then indicate the parameter that was last selected. (The unit will be in this state following step 3. Immediately after you turn on the power, Pan will be selected.)

2. Select the page that you want to edit. Press the BANK/MODE button. Press the button until the desired page appears. Alternatively, you can turn the VALUE knob to select a page.

3. Press one of the buttons 1–4 to select the parameter that you want to edit.

The indicator above the button will light up. The display will indicate the parameter name, and then the value.

note: If a button other than the selected button (1–4) is blinking, this indicates that the corresponding parameter value has been edited.

4. Turn the VALUE knob to edit the value.

The value indicated in the display will change, and the decimal point to the right of the value will light up. (The decimal point will go dark if you return the value to its original setting.)

- 5. If you want to edit a parameter located on another page, press the BANK/MODE button to switch pages (see step 2). Then edit the value as described in steps 3 and 4.
- **6.** If you want to keep the changes that you've made, you must save them. Please see next page.

note: If you return to Live mode without saving the program that you've edited (See "Selecting programs" on *QS page 7*), the indicator of the selected button (1–4) will blink, and the decimal point at the right edge of the display will light up. This indicates that the program has not been saved.

Saving your edited settings

If you would like to use your edited program again later, you'll need to save it. If you've edited a program and then power-off or switch to a different program without saving it, the changes that you made will be lost.

Changes you make to the settings of Global mode will also be lost if you power-off without saving. After editing, be sure to save your changes if you want to keep them.



Never turn off the power while data is being saved. Doing so may harm the memory.

Saving a program

This operation will save all of the Edit 1 and Edit 2 mode parameters of the program that is currently selected.

1. In Edit 1 or Edit 2 mode, press the WRITE but-

The WRITE button will blink, and the save-destination program number 000-199, P. 00-P. 99-9. 00-9. 99 will blink in the display. You can't save to P. 00-P. 99-9. 00-9. 99.

2. Turn the VALUE knob to select the program number for the desired save location.

note: When you save a program, the contents of the destination program will be lost.

3. Press the WRITE button once again; the program will be saved, and you'll return to Live mode.

If you decide not to save, press any button other than the WRITE button.

When you save, the button where the edited program had been assigned will be reassigned to the newly saved program (number).

Saving global settings

This operation will save all Global mode parameters other than the loop phrase start/stop setting. When you turn on the power, the loop phrase will be stopped.

- 1. In Global mode, press the WRITE button. The WRITE button will blink, and the display will blink նեь.
- 2. Press the WRITE button once again; the settings

If you decide not to save, press any button other than the WRITE button.

Important editing parameters

Tune and decay

Depending on the algorithm, the pitch may change smoothly or in semitone steps. Also depending on the pitch, this may affect the vibration of the skin, or the body resonances.

For algorithms where the Tune parameter has a special role, its specific function is described separately for each algorithm (See PG pages 8, 18).

For PCM instruments, you can adjust the pitch in semitone steps in a range of four octaves up or down.

Edit 1 – Decay (dc Y): This adjusts the time it takes for the sound to decay.

Like the Tune parameter, there are cases where the Decay parameter will affect only the vibration of the skin, or the body resonance.

For algorithms where the Decay parameter has a special role, its specific function is described separately for each algorithm (See PG pages 8, 18).

Head and rim volume and pan

Edit 1 – Level (LEU): This adjusts the volume balance between the head and rim.

Edit $1 - Pan (P \partial_{D})$: This adjusts the panning of the head and rim.

Edit 2 – Pre EQ (E 9): Use this to select the EQ/amp type that will be most appropriate, depending on whether you're using your hand or a stick to strike the drum.

Reverb and delay

Edit 1 - Reverb ($\neg \text{ Eb}$): This adjusts the reverberation added to the sound. You can adjust the reverb type and depth.

Edit 1 – Delay (&L Y): This adjusts the delay that is added to the sound. You can adjust the delay time and depth.

Algorithm

The WAVEDRUM implements a variety of synthesis methods in software, including analog, additive, non-linear, and physical modeling. These methods are then combined, and the result is processed. These combinations are called "algorithms," and the WAVEDRUM contains 36 different algorithms. An algorithm collects the elements that determine the sound of an instrument or other sound-producing object, and combines these elements in a wide variety of ways. This means that when a source sound (such as the sound of a drum head being struck) is passed through an algorithm, it will be output as a sound that is uniquely transformed by the characteristics of that algorithm, for example becoming the sound of a snare drum, the ringing of a bell, or the sound of a metal pipe being struck.

Each algorithm consists of different elements that determine the sound in various ways, and each element is expressed as an "amount" (large/small, long/short, positive/negative) such as the size of a guitar's body, the

depth of a snare's shell, the length of a pipe, or the density of a metal object. These amounts can be varied to synthesize the sound of instruments or other sound-producing objects that could not exist in reality.

The WAVEDRUM's algorithms differ in structure depending on whether they are "single-size" or "double-size."

Program structure for single-size algorithms

(See QS page v)

Single-size algorithms use two algorithms for each program. These algorithms are used for the head and the rim

Programs that use a single-size algorithm also allow you to use *PCM instruments* (PCM sound sources) for the head and the rim.

You can freely assign these four sound sources and edit their parameters to create an extremely broad range of sounds ranging from traditional percussion instruments to non-conventional ones; even non-percussive sounds.

The signal flow starts when you strike the head; the audio signal of this strike is input to the head algorithm, processed by DSP, and sent to the mixer section. At the same time, the strike's audio signal is also used to trigger the PCM instrument, and is itself also sent to the mixer section. An EQ is located immediately before this audio signal is input to the algorithm, allowing you to select the most appropriate setting depending on whether you're using your hand or a stick to strike the WAVE-DRUM. You can adjust the velocity curve immediately before the signal is input to the PCM instrument, allowing you to choose the way that the force of your strike will vary the volume or tone. For example, you might set this so that a soft strike will produce only the sound processed by the DSP, and the sound of the PCM instrument will be added as you gradually increase the force of your strike.

When you strike the rim, the signal flow is similar to when you strike the head; the audio signal is processed by the rim algorithm and the PCM instrument, and sent to the mixer section.

In addition, you can control the head and rim algorithms and PCM instruments by applying pressure to the head. The curve can be adjusted for this pressure as well, allowing you to specify how the pressure will affect the volume and tone. This can be used to make the instrument behave differently depending on whether pressure is being applied. For example, you might set this so that pressure on the head will mute the DSP-processed sound while allowing the PCM instrument sound to be produced.

The level and pan of the various audio signals sent to the mixer section are adjusted, sent through reverb and delay, and then sent out of the instrument.

Program structure for double-size algorithms

(See QS page v)

Double-size algorithms are more highly specialized for simulating acoustic instruments.

For this reason, two separate PCM instruments for the head and rim are combined into one, allowing a larger amount of PCM data to be handled.

Within the algorithm, your performance is analyzed in realtime, and the result of this analysis is used to control the PCM instrument, allowing a natural response that reflects your performance in a way that is impossible for a conventional PCM sound module.

Programs that use a double-size algorithm contain only one algorithm.

This algorithm contains inputs for both the head and rim, but this does not mean that they have separate sound sources for each; rather, the head and rim input signals are mixed and input to the single algorithm.

Since the PCM instrument is linked with the algorithm, it cannot be specified independently.

The signal flow starts when you strike the head or rim; these audio signals are input to the algorithm.

The signal that is input to the algorithm is DSP-processed and sent to the mixer. At the same time, the signal is analyzed to generate a trigger that sounds the appropriate PCM instrument.

The PCM instrument produces sound in response to this trigger, and the sound is sent to the mixer section.

For the head, you can use an EQ to adjust the signal immediately before it is input to the algorithm. You can also use pressure on the head to control the volume or tone of the algorithm and the PCM instrument. The pressure curve can also be adjusted.

The level and pan of the audio signals sent to the mixer section are adjusted, sent through reverb and delay, and then sent out of the instrument.

Edit 1 – Algorithm Select (RLC): This selects the algorithm.

Edit 2 – Head Algorithm 1, 2 (H. 14, H. 58), Edit 2 – Rim Algorithm 1, 2 (r. 14, r. 58): Adjusts the parameters of the algorithm.

Audio input and loop phrase playback

The stereo audio signal of the program, the stereo audio signal from the AUX IN jack, and the loop phrase audio are finally combined and sent out of the WAVEDRUM.

Global – Common ($\mathcal{E} \circ \bar{n}$): Here you can set the pan following the delay effect, and the volume for the AUX IN jack. You can also select the loop phrase, start and stop it, and control its level.

Appendix

Restoring the factory settings

Here's how to return the WAVEDRUM's programs (preset and user), Live mode, and Global mode settings to their factory default state. You can choose to restore either of the following two types of data.

- a) Program and Live mode data
- b) All data (Programs, Live mode, Global mode)



When you execute these operations, all of the corresponding data will be rewritten to the factory default settings. Be aware that all the settings you've made will be lost.

If you execute b), you will also need to perform the calibration operation once again (See PG page 22). This operation will not change the sensor height.

- 1. While holding down the WRITE button, press the power button to turn on the power. When the display blinks PL d, release the buttons.
- 2. If you want to return the data a) listed above to the factory settings, hold down the blinking WRITE button for approximately one second.

If you want to return the data b) listed above to the factory settings, hold down the BANK/MODE button and then hold down the blinking WRITE button for approximately one second. The display will blink PL A.

The factory settings will start being loaded. When loading is complete, the display will blink $E \cap d$.



Never turn off the power while data is being loaded. Doing so may destroy the data.

3. Turn off the power, and then turn it on again.

Troubleshooting

Sound is different than another WAVEDRUM

As is the case for many other instruments, each individual WAVEDRUM will differ slightly depending on how it is tuned, the conditions how it is played, and how it has been maintained.

This means that even if the same heads are installed on several WAVEDRUMs and the same program settings are used, they may not necessarily produce identical sounds when played.

In other words, the WAVEDRUM is an electronic musical instrument that also has some characteristics of an acoustic instrument

The sound of another instrument causes the WAVE-DRUM to resonate and be triggered unintentionally

You may be able to prevent this by calibrating the head. See PG page 22

Feedback occurs

Consider using an equalizer or limiter of your PA system to prevent feedback and protect the amp and speaker system. See OS page 3

You may be able to prevent this by calibrating the head. See PG page 22

Does not respond to pressure applied to the head

Could the drum head be stretched too tightly? If the head is too tight, the pressure sensor will not work correctly. You may be able to fix this by tuning the head appropriately. See PG page 21

Performing the pressure calibration may make the sensor respond correctly. See PG page 22

No sound from the device connected to the AUX IN jack

Have you appropriately raised the AUX IN jack's mix level in Global mode? See PG page 7

Is the volume of the connected device turned up? See OS page 6

Are the connections correct? Is the power turned on? See QS page 6

Specifications

Dynamic Percussion Synthesizer

Algorithms: Single-size 26, Double-size 34 PCM instruments: Head 200, Rim 200 **Programs:** 400 (User 200, Preset 200)

Loop phrase: 140 Effect: Reverb, Delay

Controls: VOLUME knob, WRITE button, Buttons 1–4,

BANK/MODE button, VALUE knob

Input/Output jacks: Output L, R (Monaural phone jack), Phones (Stereo mini phone jack), AUX IN (Stereo mini phone jack)

Display: 3-character 7-segment LED Sampling frequency: 48 kHz

A/D, D/A conversion: 24 bit Power supply: DC9V 1.7A

Dimensions (WxDxH): 344×349×75 mm /

13.54"x13.74"x2.95" Weight: 2.0 kg / 4.41 lbs.

Included items: AC Adapter, Tuning key, Allen wrench, Accessory Disc including PDF manuals (Quick Start

Guide, Parameter Guide)

Options: Percussion Stand ST-WD

Hard cases HC-WD Soft cases SC-WD

Mobile Monitor Amplifier (supports power supply)

* Specifications and appearance are subject to change without notice for improvement.

Voice Name List

Programs

Ī	_	Н	ead	Rim		
No.	Program	Algo.		Algo.	Inst.	
Real I	nstrument					
0	Snare 1 (Double-size)	29	-	-	-	
1	Snare 2 (Double-size)	30	-	-	-	
2	Snare 3 (Double-size)	31	-	-	-	
3	Velo Ambi Snare	19	17	2	12	
4	Multi Powerful Tom	5	22	24	21	
5	Krupa Abroad	2	26	7	10	
6	Pitched Toms w/Cowbell	19	24	4	22	
7	Ambi Taiko	9	23	19	12	
8	Viking War Machine	12	34	9	20	
9	Vintage Electronic Toms	26	31	2	14	
10	Okonkolo → Iya Dynamics	10	60	18	21	
11	Iya Boca/Slap Dynamics	10	58	14	29	
12	Itotele Boca	10	59	18	29	
13	Talk Drum	17	29	24	31	
14	Apocalypse Now	25	28	7	26	
15	Djembe (Double-size)	34	-	-	-	
16	Djembe	19	52	2	34	
17	BigHand Cowbell	10	7	2	41	
18	Bongo (Double-size)	28	-	-	-	
19	Conga (Double-size)	27	-	-	-	
20	Tricky Lo Conga / Shaker	3	44	18	54	
21	Conga Circle	19	42	22	25	
22	Congo Bells & Rattle	19	43	18	35	
23	Timbales Lo/Hi + Paila (Rim)	19	66	10	38	
24	Timbale +Paila (Double-size)	32	-	-	-	
25	Samba Snare & Agogo (Rim)	22	18	18	36	
26	Guiro, Mambo Set	19	68	18	53	
27	Reco Reco, Mambo Set	19	69	18	39	
28	Hot Salsa Combo	22	39	19	27	
29	Shaker & Triangle	8	41	18	55	
30	Surdo	3	70	17	62	
31	Pandeiro	22	71	18	76	
32	Rek	10	73	22	59	
33	Metal Dumbek	10	74	6	30	
34	Darabuka WD Dynamics	17	63	22	61	
35	Tabla Drone	14	77	13	75	
36	Shaken Udus	1	75	1	52	
37	Udu Udu	1	7	1	51	
38	Cajon (Double-size)	33	-	-	-	
39	Flamenco Castanet & Tap	22	67	18	67	
40	Taiko & Tsuzumi (Pressure)	10	78	6	68	
41	Wa-Daiko	12	80	2	64	
42	Eastern Velo Cym Drum	9	82	21	12	
43	Timpani Lo/Hi Orch Cymbal	17	81	18	71	
44	China/Splash Set for Drummer	15	83	18	69	
45	Mini TamTam/Gong for Drummer	9	84	15	73	
	ed Instrument	1-	1	1	1	
46	Jews Harp	16	100	9	65	
47	Berimbau	18	40	11	83	
48	Pressure Wah Drum	24	32	16	87	
49	Steel Drum (F-A-B ^b -C-F)	10	36	10	50	
50	Broken Kalimba	7	50	22	32	
50	DIOREII Nulliinuu		50		72	

l	_	Не	ad	Rim		
No.	Program	Algo.	Inst.	Algo.	Inst.	
51	Balafon	7	51	25	81	
52	Gamelan	9	76	18	63	
53	Ethno0pera	7	61	15	72	
54	Koto Suite	20	79	20	66	
55	Compton Kalling	20	5	22	15	
56	Wind Bonga	7	8	19	28	
57	Personality Split	7	10	16	78	
	Orum/Snare Drum split		1	1		
58	Snare/Kick 1 (Double-size)	35	-	-	-	
59	Snare/Kick 2 (Double-size)	36	-	-	-	
60	Kick The Synth	4	11	4	1	
61	D&B Synth	4	16	23	85	
62	Voice Perc. BD/SD/HH	7	13	18	74	
63	Harmonic Kikudus	1	9	1	16	
64	Powerful Udu & Snare	1	38	10	6	
65 66	Kick & Snare Combo: Orchestral Orky Perky Duet	26 7	14 19	22 7	9 84	
67	Kenya Street Rap	9	5	22	8	
68	Drum Whistler	25	3	16	2	
69	Kick & Snare Combo: Pop	26	15	22	5	
70	Movin'Air Club Beat	11	2	11	17	
71	AlienCommunication	4	12	4	79	
72	Drums and Keys	2	10	4	78	
Synth	•		10	4	70	
73	The Thinking Man	25	98	5	7	
74	Club India 120bpm	13	92	21	60	
75	Dance Hit Drone (Key of F)	2				
76	The Serengeti	5	53	10	86 11	
	al Wavedrum Taste	,	33	10		
77	Water SE	9	45	15	94	
78	Angry Gods	17	62	25	82	
79	Dancing with Tigers	3	4	14	13	
80	Yoga Breathing Drum	17	35	21	40	
81	Bass Canyon	19	1	10	17	
82	DDL Mystic Jam	10	30	3	23	
83	Epic Film Toms	9	33	10	19	
84	DonHya And	23	7	23	93	
85	Suikin '09	23	85	2	95	
86	3624	26	6	1	90	
SE				Į.		
87	Cold Wind	4	7	2	77	
88	Always a Mystery	4	99	3	26	
89	Aliens in the Basement	15	91	23	24	
90	When the Clock Strikes 12	15	97	23	4	
91	Tom the Robot	19	25	9	37	
92	Night Market	10	96	15	36	
93	Industrial Perc	10	93	18	91	
94	Industrial BD/SD/HH/Cym	10	94	18	92	
95	Vinyl Drummer	7	89	23	18	
96	Creepin'	17	88	24	58	
97	Rainy Day Drum (Rim Velo SW)	10	90	18	80	
98	The Forest Drum	10	27	19	48	
99	MAYA	13	95	23	3	
	imulation of Middle East Instrument		ı			
100	Darabuka Ensemble (Double-size)	38	-	-	-	
101	Darabuka (Double-size)	37	-	-	-	
102	Darabuka Tarkish (Double-size)	39	-	-	-	
103	Daf (Double-size)	41	-	-	-	
104	Daf Iranian (Double-size)	44	-	-	-	
105	Daf Egyptian	22	110	18	119	
106	Iranian Hard Daf - Lo	10	109	18	121	

	D	Не	ad	Rim		
No.	Program	Algo.	Inst.	Algo.	Inst.	
107	Tar (Double-size)	40	-	-	-	
108	Bendir (Double-size)	45	-	-	-	
109	Dark Bendir	12	112	10	106	
110	Big Bendir	1	111	15	124	
111	Doyra (Double-size)	42	-	-	-	
112	Req (Double-size)	43	-	-	_	
113	Req-Clap Set	19	130	18	133	
114	Big Req	10	129	1	120	
115	Sagat Egyptian	18	131	8	125	
116	Bells and Sagat	18	132	8	128	
117	Tabil	12	108	2	111	
118	Katim	10	117	10	110	
119	Nakrazan	19	118	10	113	
120	Bongos Hi/Lo	19	114	19	136	
121	Zeer & Tweasat	19	115	18	129	
122	Zeer Pitched	19	116	18	121	
123	Khishbah	25	123	19	115	
124	Sagool Combination	22	120	5	118	
	ve Sound of Middle East Instrument	1		T _		
125	Katim Gated	10	107	7	108	
126	Tantan-Katim	10	128	19	109	
127	Group Percussion	12	127	19	135	
128	Asma Davul Electronic	26	121	15	116	
129	Mix Doholla-Drum	26	106	22	104	
130	Daf Pitched	7	119	10	105	
131	Ceramic Mini Dbk	1	101	124		
132	Egyptian String	13	135	13	132	
133	Egyptian Playground	13	126	19	112	
Real S	imulation of Non Middle East Instrumer	nt				
134	Ghatam	1	125	1	117	
135	Shekele	22	136	18	137	
Synth	y Simulation of Middle East Instrument					
136	Voice Percussion	25	148	18	150	
137	White Blocks	22	143	22	130	
138	Minimal Logs	23	137	17	131	
139	Tar Drum Kit	12	146	19	107	
140	Unhappy Camels	14	124	10	127	
141	Suspicious Eyes	19	122	18	122	
142	Darabuka Roll	10	104	7	102	
143	World DnB K/H/S	6	134	19	122	
144	The Price of Oil	10	113	5	114	
SFX	THE THE GI OH	10	113	,	111	
145	Breathe in the Amber	4	141	2	141	
146	Wind Chimes	23	144	18	140	
147	Bottle Synth	5	144	10	140	
147	Rain Stick	18	142	18	134	
149	Border Crossing	10				
	•	10	105	21	123	
	nstrument Snare 4 Piccolo (Double-size)	F0				
	L MATE & PICCOIO (DOUDIE-SIZE)	50	-	-	-	
150		40			-	
151	Snare 5 12" (Double-size)	49	-	-		
151 152	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size)	47	-	-	-	
151 152 153	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size)	47 46	-	-	-	
151 152 153 154	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size)	47 46 48	-	-	-	
151 152 153 154 155	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size) Djembe Cowskin Hi (Double-size)	47 46 48 55		-	-	
151 152 153 154 155 156	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size) Djembe Cowskin Hi (Double-size) Djembe Cowskin Lo (Double-size)	47 46 48 55 56	- - - -	- - -	-	
151 152 153 154 155 156 157	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size) Djembe Cowskin Hi (Double-size) Djembe Cowskin Lo (Double-size) Djembe Fiber (Double-size)	47 46 48 55 56 54	- - - - -	- - - -	- - - -	
151 152 153 154 155 156 157 158	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size) Djembe Cowskin Hi (Double-size) Djembe Gowskin Lo (Double-size) Djembe Fiber (Double-size) Dundunba	47 46 48 55 56 54 12	- - - - - - 176	- - - - - 2	- - - - - 190	
151 152 153 154 155 156 157 158 159	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size) Djembe Cowskin Hi (Double-size) Djembe Cowskin Lo (Double-size) Djembe Fiber (Double-size)	47 46 48 55 56 54 12	- - - - -	- - - -	- - - -	
151 152 153 154 155 156 157 158	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size) Djembe Cowskin Hi (Double-size) Djembe Cowskin Lo (Double-size) Djembe Fiber (Double-size) Dundunba Bata Drums Shekere 2	47 46 48 55 56 54 12 19 7	- - - - - - 176	- - - - - 2	- - - - - 190	
151 152 153 154 155 156 157 158 159	Snare 5 12" (Double-size) Snare 6 Acryl (Double-size) Snare 7 Z (Double-size) Snare 8 Deep Shell (Double-size) Djembe Cowskin Hi (Double-size) Djembe Cowskin Lo (Double-size) Djembe Fiber (Double-size) Dundunba Bata Drums	47 46 48 55 56 54 12	- - - - - - 176	- - - - - 2	- - - - - 190	

No.	Dr	Не	ad	Rim		
NO.	Program	Algo.	Inst.	Algo.	Inst.	
163	Tumba Wood (Double-size)	53	-	-	-	
164	Timbale 2 Hi	10	177	2	177	
165	Timbale 2 Lo	12	178	2	188	
166	Pandeiro 2	17	164	18	165	
167	Samba Suite	26	163	19	189	
168	Surdo 2	12	160	2	161	
169	Hiradaiko	12	180	10	179	
170	Okedaiko	17	182	10	181	
171	Shimedaiko	19	181	19	180	
172	Taiko & Chappa	12	183	8	191	
173	Snake Drum	26	184	22	166	
174	Octave'n Tom	17	154	2	184	
175	Wild Rotate Tom	7	155	22	151	
176	Cajon 2 (Double-size)	57	-	-	-	
177	Acoustic Kit (Double-size)	58	-	-	-	
178	Djembe Lo-Fi	10	173	10	173	
179	Flange Hi Timbal	19	179	178		
180	Portamento Tambourine	9	162	9	187	
181	Talking Frame Drum	12	161	12	156	
Pitch	ed Instrument					
182	Mill-Tn Finger Random	5	168	9	171	
183	Clicket Log Drum	10	170	23	160	
184	Balafon 2	21	167	21	158	
185	Jegog	21	166	24	167	
186	Berimbau 2	11	172	18	159	
187	Thunder Theater	7	193	18	192	
188	Sneaky Pursuit	21	171	21	200	
Bass I	Drum/Snare Drum split					
189	Dub Step Kit	15	151	7	199	
190	Angry Man (K+S Dub)	18	199	18	153	
191	World Party (K+S Moombahton)	14	152	19	154	
192	Piggy (DubStep K/S/Hats)	21	153	10	155	
Bass						
193	Bass 1 (Reso Bass)	5	197	10	183	
194	Bass 2 (Analog Bass)	10	198	10	183	
SFX						
195	Spacy SFX	10	195	14	196	
196	The Night of the Storm	2	191	2	193	
197	Praying for Rain	17	192	18	195	
198	Meditation Ball	2	187	2	186	
199	Terminator 2048	10	196	15	198	

Live mode

Button Program									
a									
157 Djembe Fiber (Double-size)									
152 Snare 6 Acryl (Double-size)									
182 Mill-Tn Finger Random									
190 Angry Man (K+S Dub)									
b									
100 Darabuka Ensemble (Double-size)									
175 Wild Rotate Tom									
197 Praying for Rain									
164 Timbale 2 Hi									
С									
74 Club India 120bpm									
162 Conga Wood (Double-size)									
106 Iranian Hard Daf - Lo									
199 Terminator 2048									

Algorithms

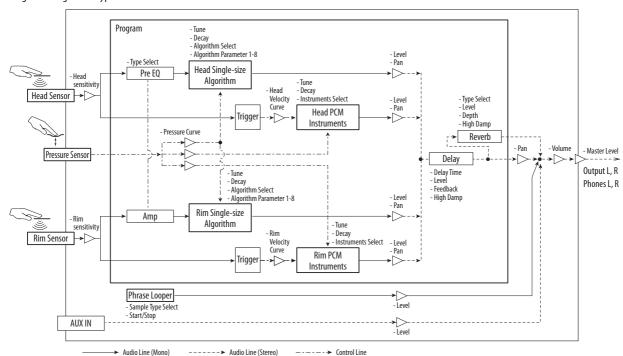
Δla	gorithms	P(: M Instruments	No.	Head PCM Instrument	No.	Head PCM Instrument	No.	Head PCM Instrument
117	yoridiiiis		in ilistrallicits	61	Tom/Iya Drum Corps	124	Wacky 3VS Khishbah	187	Finger Cymbal
••		1		62	Itotele/Iya Mix	125	Yahal Dum	188	Wind Chime
No.	Algorithm	No.	Head PCM Instrument	63	Darbuka Head	126	World DnB 2A	189	Jingle Roll
1	Udu	1	Multi Tubb Kick	64	Paila Lo	127	Group Drums	190	Chappa
2	Temple	2	Dance Kicks w/reverse	65	Paila Hi	128	Tantan	191	Ocean Wave
3	WoodDrum	3	Whistle Kick	66	Lo Hi Timbales	129	Req Center	192	Thunder
4	Analog	4	Tubby Kick /TOM	67	Castanet	130	Req Egypt	193	Rain&Thunder Drum VS
5	Arimbao	5	88 Hat/Kick	68	Guiro	131	Sagat Egypt	194	Rain
6	Sawari-A	6	Kick 99	69	RecoReco 4 Velo	132	Sagat Bells	195	Spacy SFX
7	WindDrum	7 8	BD Ambi BD Dry	70	Surdo Open Pandeiro	133	Sagat Dynamic Head World DnB 1A	196 197	Seq Computer 7xVS Bass 1 (Reso Bass)
9	Triangle	9	Kick & Snare	71 72	Tambourine	134 135	Ghost Note	197	Bass 2 (Analog Bass)
10	Water BigHand	10	Dance Kick & Snare 2	73	Rek Head	136	Rattle Maracas	198	Dub Step Snare&Hits
11	Steel ST	11	Kick, Snare & Hat	74	Rek	137	Caxixi Off Beat	200	•
12	Mo'Daiko	12	Dance BD & 99 SD	75	Udus/ Shaker	138	Angklung	200	Synth file +30
13	Sawari-B	13	Voice BD/SD/HH	76	Gamelan	139	Steel Drum 2		
14	Tabla	14	Orch SD to Orchestra BD	77	Tabla"Tele"	140	Rain Stick 1	No.	Rim PCM Instrument
15	Gong	15	SD to BD	78	Japanese Tsuzumi	141	Heart Beat Breath	1	Multi Pitched BDs
16	Wah Harp	16	Dance BD & SD	79	Tsuzumi 2	142	Synth Perc	2	2 Tone Dance Kick
17	TalkDrum	17	Velo Ambi Snare	80	Oodaiko	143	Noise Scale	3	Kick 99
18	Jingle	18	Samba Snare	81	Timpani Lo/Hi	144	Bell Tree	4	Snare 3 Velo
19	Bonga	19	Orch Snare w/ Cym	82	Velo Splash Cym	145	SD-HH	5	SD Dance
20	Koto	20	Hand Claps	83	New China Cymbal	146	Two Brushed Toms	6	Velo 99 SD
21	Bamboo	21	Kompton Klaps	84	Mini TamTam	147	Tom Mid	7	Hat/Dance Snare
22	JingDrum	22	Multi Powerful Tom	85	Bells	148	Tuunn	8	Cybernetik SD
23	Don-Hya	23	Ambi Drum	86	Jingle	149	Hey! Zil	9	Orchestra SD
24	Mariko	24	Two Pitched Tom	87	Metal tree	150	SFX - Rim	10	Brush Swirls
25	Upo	25	Rock Toms	88	Fly in Jungle	151	Dub Step Kit	11	Deep Tom Tom (Key of C)
26	1812	26	Brushes 3 Toms	89	Vinyl Crash	152	Moombah Snare&Hits	12	Ambi Rim
27	Conga	27	Low Tom/ velo Forest	90	Rainy Day Bird	153	Dub Step Snare&Bass	13	Dance Clap
28	Bongo	28	Tom Vintage Hi	91	Low Bull Roar Loop	154	Octave'n Tom	14	Hand Claps
29	Snare Drum 1	29	Tom Soul	92	Synth Stab (Key of C)	155	Rotate Tom	15	Kompton Klaps
30	Snare Drum 2	30	Mark Tree Chord w/Thump	93	Industry	156	Shekere 2	16	Kick & Snare
31	Snare Drum 3	31	E.Tom Velo Set	94	Industrial BD/SD/HH	157	Shekere 2	17	Dance Kick & Snare 1
32	Timbales	32	Tiki Tiki Tom Tom	95	Industs	158	Shaker2	18	Dance Kick & Snare 2
33	Cajon	33	Epic Hi-Toms Head	96	Industry Hit	159	Caxixi2	19	Epic Lo-Toms Rim
34	Djembe	34	Low War Tom Rim	97	Shaker & Church Bell	160	Surdo	20	War Toms Head
35	BassDrum+SnareDrum 1	35	Guitar and Ghost	98	Synthy G Melody	161	Frame Drum Tek	21	Jazz Tom
36	BassDrum+SnareDrum 2	36	Steel Drum (F-A-Bb-C-F)	99	Velo Vocoder	162	Frame Drum/w jingle	22	Cowbell
37	Darabuka	37	Mouth Harp C Drone	100	Berimbau Attack	163	Pande-Tambo-Surdo	23	Bongoish
38	Darabuka ensemble	38	Shaker/Kick	101	Tiny Darabuka	164	Pandeiro 2 Open	24	Hi Bongoish
39	Darabuka Turkish	39	Shaker to Clave	102	Darabuka Bend	165	Wood blocks	25	Conga Gliss
40	Tar	40	Caxixi	103	Darabuka Grace Hit	166	Log drum	26	Low Conga
41	Daf	41	Triangle	104	Egypt Drb Roll Center	167	Balafon 2	27	Super Conga
42	Doyra	42	Conga Clap	105	Darabuka Tek to Vox Kick	168	Mill-Tn Finger Random	28	Tumba Open
43	Req	43	Conga Hi-Close/Open	106	Doholla Center	169	Mill-Tn Rute	29	Iya Boca Choke
44	Daf Iranian	44	Bassish Lo Conga	107	Katim Center	170	Clicket Log Drum	30	Boca Open
45	Bendir	45	Conga Lo-Basstone	108	Tabil Open Daf 21" Hard Bak	171	VibraMarimba VS Chordplay Berimbau 2	31	Iya Chacha UP
46	Snare (Z) 14"x6.5" Snare (Acrylic) 14"x6.5"	46	Conga Gliss	109		172		32	Broken Kalimba
47 48	Snare (Wood) 14"x7.5"	47	Low Conga Super Conga	110	Daf Tek Egypt Big Bendir 14"	173 174	Djembe Lo-Fi Bata Left	33	Log drum Djembe Closed Slap
	Snare (Wood) 12"x6"	49	Tumba Open	112	Bendir Dum	175	Bata Right	35	
49 50	Piccolo Snare (Brass) 13"x4"	50	Broken Kalimba	113	Low Pitch ADDum 3VS	176	Dundunba	36	Agogo/Cuica Agogo
51	Quinto (Wood)	51	Balafon	114		177	Timbale 2 Hi	4 +	, ,
52	Conga (Wood)	52	Diembe	115	Bongos Low Zeer	177	Timbale 2 Lo	37	Tambourine Paila Lo
53	Tumba (Wood)	53	Dynamic Djembe	116	Zeer Pitch Head	178	Natural Hi Timbal	39	Paila Hi
54	Djembe (Fiber)	54	Djembe Closed Slap	117	Katim	180	Hiradaiko	40	Timbale Attack
55	Djembe (CowSkin Hi)	55	lya Boca Choke	118	Nakrazan	181	Shimedaiko	41	Timbales Lo-Paila
56	Djembe (CowSkin Lo)	56	Boca Open	119	Tar Snip	182	Okedaiko	41	Lo Hi Timbales
57	Cajon 2	57	Iya Chacha UP	120	Sagool Head	183		42	Castanet
58	Bass Drum+Snare Drum 3	58	Iya Boca Open+Slap	121	Asma Davul Head	184	H-Eccs Crash	43	Guiro
59	Bass Drum+Snare Drum 4	59	Itotele Boca Open	122	Gulf Jam Set 3VS	185	HH for Basses	44	RecoReco 4 Velo
60	Bass Drum+Snare Drum 5	60	Okonkolo -> Iya (Open)	123	Khishbah	186		46	Pandeiro
	6. Single-size 27_60. Double-size	00	okonkolo -/ Iya (Upeli)	123	MIDIDUII	100	Stacked Cyllibai	40	ו מוועכווט

^{1–26:} Single-size, 27–60: Double-size

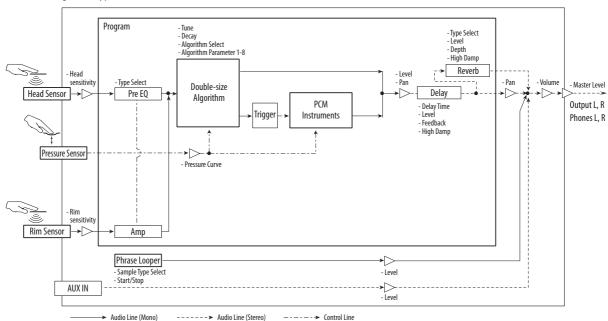
No.	Rim PCM Instrument	No.	Rim PCM Instrument	No.	Rim PCM Instrument	No.	Loop Phrase [bpm]	No.	Loop Phrase [bpm]
47	Rek Head	111	Tabil Rim	175	Timbale 2 Hi	33	Reggae [129]	97	Bossa 1 [65]
48	Rek	112	World DnB 2B	176	Timbale 2 Lo	34	Rhumba [109]	98	Bossa 2 [168]
49	Gamelan	113	Nakrazan Mute	177	Paila Hi	35	Salsa 1 [97]	99	Percussion 1 [90]
50	Steel Drum (Low F)	114	Tricky Tek Mix 6VS	178	Natural Hi Timbal Paila	36	Salsa 2 [97]	100	Percussion 2 [90]
51	Udu	115	Kasur Rim	179	Hiradaiko Fuchi	37	SambaDeSol [113]	101	7/8 [96]
52	Udus/ Shaker Accent	116	Asma Davul Tek Rim	180	Shimedaiko Fuchi	38	Sambalegre. [112]	102	Arabic Rumba [96]
53	Shaker 1	117	Yahal Tek	181	Okedaiko Fuchi	39	Turkish Pop 1 [128]	103	Ayoub [94]
54	Shaker 2	118	Sagool Rim	182	H-Eccs Crash	40	Turkish Pop 2 [128]	104	Baladi 1 [112]
55	Velo Accent Shaker	119	TD Jingle	183	HH for Basses	41	Vahde [80]	105	Baladi 2 [130]
56	Shaker/Kick	120	Reg Edge	184	Stacked Cymbal	42	2/4 Oyun 1 [113]	106	Baladi 3 [130]
57	Shaker to Clave	121	Req - Tik	185	Finger Cymbal	43	2/4 Oyun 2 [113]	107	Benderi [174]
58	Caxixi	122	World DnB 1B	186	Wind Chime	44	5/8 [91]	108	Eskandarani [140]
59	Rek Rim	123	Ragaf Riqq to Vox Snare	187	Jingle Roll	45	9/8 [136]	109	Fallahi [220]
60	Multi-Tabla	124	Lo Pitch Req Open	188	Cowbell 2	46	Rock 1 [105]	110	Gorgina 10/8 [170]
61	Darbuka Rim	125	Sagat Egypt Open	189	Samba Rim	47	Rock 2 [110]	111	Hajaa Soudasi 6/8 [124]
62	Surdo Hand&Rim	126	Sagat Dynamic Head	190	Dundunba Metal	48	Rock 3 [112]	112	Karatchi [110]
63	Gamelan Celesta	127	Sagat Silver Cl->Opn 5VS	191	Chappa	49	Rock 4 [112]	113	Katakofti 1 [113]
64	Taiko Rim	128	Sagat Roll	192	Orch SD->Timp 6x VS	50	Rock 5 [150]	114	Katakofti 2 [110]
65	Tsuzumi 1	129	Tweasat	193	Wave Attack	51	Rock 6 [Swing, 95]	115	Katakofti Modern [113]
66	Tsuzumi 2	130	Splash Jingle	194	Thunder	52	Rock 7 [Swing, 95]	116	Khbeti 6/8 [152]
67	Foot Step	131	Snake Drum	195	Rain	53	Rock 8 [Swing, 90]	117	Laf 1 [112]
68	Short Finger Cymbal	132	Ghost Note	196	Piano Harp SFX	54	Rock 9 [Triplet, 130]	118	Laf 2 [110]
69	Velo Splash Cym	133	Clap	197	Spacy SFX	55	Heavy Rock 1 [75]	119	Maksoum 1 [127]
70	New China Cymbal	134	Rain Stick 2	198	Bass Computer 4xVS	56	Heavy Rock 2 [85]	120	Maksoum 2 [130]
71	Orchestra Cymbal	135	Chacha OpenSlap	199	Dub Step Bass Velo SW	57	Heavy Rock 3 [115]	121	Maksoum Sarih [160]
72	Deep Orch Crash	136	Bongos High Open	200	Vocoder Vox 9xVS	58	Pop 1 [130]	122	Mallaya [220]
73	Chinese Gong	137	Caxixi 2			59	Pop 2 [110]	123	Masmoudi [126]
74	Voice HH/Cym	138	Angklung			60	Pop 3 [125]	124	Nobi [95]
75	Bells	139	Steel Drum 2	۱.	an Dhuasas	61	Pop 4 [128]	125	Rumba [138]
76	Jingle	140	Wind Chime	L0	op Phrases	62	Pop 5 [Swing, 104]	126	Saidi 1 [109]
77	Metal tree	141	Whistle		•	63	Pop 6 [124]	127	Saidi 2 [120]
78	Synth Hits	142	Synth Perc	No.	Loop Phrase [bpm]	64	Pop 7 [100]	128	Saidi 3 [120]
79	PC Voice	143	Guitar Chord	1	ClubLatin [120]	65	Pop 8 [100]	129	Saidi 4 [120]
80	Rain -> Thunder Velo SW	144	Tom Mid	2	Andean [110]	66	Pop 10 [124]	130	Saidi 5 [120]
81	Gop Pitch Up	145	Hi Toms Pitch	3	Bachata [123]	67	Pop 11 [120]	131	Saidi 6 [120] Saidi 7 [120]
82	Angry Gods RIM Berimbau Attack	146	Stick Cymbal SD-HH	5	Beguine [112]	68 69	Pop 12 [Triplet, 120]	133	
84	Timpani w/Orch Hits	147 148	SFX - Rim	6	Brazilian Samba1 [102] Brazilian Samba2 [101]	70	Pop 13 [90] Ballad 1 [77]	134	Saidi Modern [130] Samai [120]
85	Code	149	Hey! Zil	7	Calypso [84]	71	Ballad 2 [100]	135	Shabi [160]
86	Synth Switch	150	Uuh	8	ChaCha 1 [122]	72	Ballad 3 [70]	136	Soudasi 6/8 [122]
87	WaveDrum Splat	151		9	ChaCha 2 [142]	73	Ballad 4 [123]	137	Wehda 1 [120]
88	Industry	152	Hat->Kick 3xVS	10	Ciftetelli [154]	74	Ballad 5 [75]	138	Wehda 2 [120]
89	Industry	153	Dub Step Hats->Kick 4xVS	11	Cool Bossa 1 [148]	75	Ballad 6 [3beat, 128]	139	Wehda 3 [120]
90	Industrial 1	154	Moombah Pandier/Kik	12	Cool Bossa 2 [148]	76	Ballad 7 [Swing, 75]	140	Zaffa [96]
91	Industrial 2	155	Dub Step Kick&Hats	13	Cuban ChaCha [140]	77	Funk 1 [120]	الم	i e e e
92	Industrial Cym	156	Sidestick	14	DiscoSamba [118]	78	Funk 2 [84]	ł	
93	Industry Hit	157	Shekere 2	15	Fast Bossa 1 [105]	79	Funk 3 [Swing, 90]	İ	
94	Bubble	158	Shaker2	16	Fast Bossa 2 [105]	80	Funk 4 [Swing, 100]	İ	
95	Rain Stick	159	Caxixi	17	Fast Bossa 3 [105]	81	Funk 5 [100]	İ	
96	Fly in Jungle	160	African Shaker	18	Gipsy Dance [114]	82	Funk 6 [100]	Ī	
97	Vinyl Crash	161	Surdo Rim	19	Groove Bossa [95]	83	Funk 7 [95]		
98	Rainy Day Bird	162	Frame Drum/w jingle	20	Halay 1 [115]	84	Soul 1 [Triplet, 124]		
99	Low Bull Roar Loop	163	Pande-Tambo-Surdo	21	Halay 2 [115]	85	Soul 2 [80]		
100	Synth Stab (Key of C)	164	Pandeiro 2 Open	22	Lambada 1 [109]	86	16beat 1 [90]		
101	Darabuka Bend	165	Pandeiro 2 Jingle	23	Lambada 2 [109]	87	16beat 2 [120]		
102	Egybt Drb Grace Edge	166	Doyra Edge	24	LatinBigBand 1 [111]	88	16beat 3 [104]		
103	Darabuka Grace Hit	167	Wood blocks	25	LatinBigBand 2 [124]	89	16beat 4 [120]	1	
104	Doholla Edge	168	Log drum	26	LatinBigBand 3 [102]	90	16beat 5 [92]	.	
105	Daf Tek Mute	169	Balafon 2	27	Macarena [108]	91	16beat 6 [122]		
106	Bendir Tek Mute	170	Mill-Tn Finger Random	28	Mambo Party [105]	92	Jazz 1 [Swing, 120]	1	
107	Tar Tek Mute	171	Mill-Tn Rute	29	Mariachi [106]	93	Jazz 2 [Swing, 92]	!	
108	Katim Edge	172	Clicket Log Drum	30	Meditation Bossa [120]	94	Jazz 3 [Swing, 92]	•	
109	Katim Tak	173	Djembe Lo-Fi Mute	31	Merengue [131]	95	Latin 1 [108]	<u> </u>	
110	Katim Mute	174	Bata Right	32	Orch.Bossa [136]	96	Latin 2 [130]	l	

Program structure for Single-size/ Double-size Algorithms

Single-size Algorithm Type



Double-size Algorithm Type



IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside. WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty. Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

