# En Introduction

Thank you for purchasing the Korg volca drum digital percussion synthesizer. The volca drum is a rhythm sequencer built around a digital synthesis engine focused on percussive sounds. Six drum parts can be tweaked at will to create original drum kits. From pure tone impulses to gritty distorted crunches, a wide array of sounds can be created, and further enhanced with a waveguide-based resonator effect to create other-worldly rhythms.

Sound Controls

These knobs and buttons control the sound of the currently selected drum part and waveguide resonator effect. As illustrated below, each part has two identical layers and the waveguide resonator is shared for all parts.
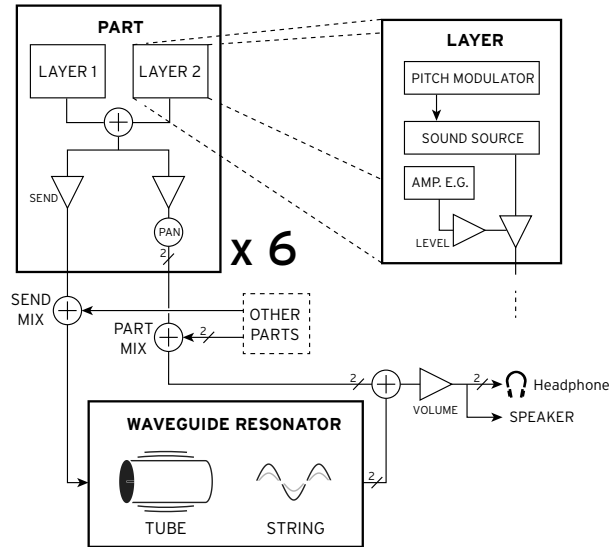
LAYER 1/2 button
Toggle the selected layer. The button will light up when both layers are selected at once.

LEVEL [VALUE] knob
Set the gain level of the selected layer. When EDIT/STEP is lit, this knob sets the value of the part parameter selected via the SELECT [PARAM] knob.

PITCH knob
Set the pitch for the selected layer.

MOD AMOUNT knob
Set the amount of pitch modulation for the selected layer.

MOD RATE knob
Set the pitch modulation rate for the selected layer.

EG ATTACK knob
Set the attack time of the amplitude envelope generator for the selected layer.

EG RELEASE knob
Set the release time of the amplitude envelope generator for the selected layer.

SELECT [PARAM] knob
Cycle through permutations of sound sources, pitch modulators, and amplitude envelopes for the selected layer. Sound sources (SRC): sine wave, sawtooth wave, high pass filtered noise, low pass filtered noise and band pass filtered noise. Pitch modulators (MOD): rise-fall, oscillate, and random. Amplitude envelope generators (EG): linear attack-release, exponential attack-release, multi-peak attack-release.
When EDIT/STEP is lit, this encoder functions as the PARAM knob, cycling through the following additional part parameters:

BIT: bit reduction amount
FLD: wave folder amount
DRV: overdrive gain
PAN: left-right pan
GAN: pre-mix gain adjustment

WAVEGUIDE

SEND knob
Set the waveguide resonator send amount for the selected part.

DECAY knob
Set the decay time of the waveguide resonator.

BODY knob
Set the timbral character of the waveguide resonator.

TUNE knob
Set the pitch tuning of the waveguide resonator. For low values, the tuning goes below audible frequencies and effectively turns the waveguide resonator into a delay-like effect.

DISPLAY

Current parameter and value

Current sound selection

Current waveguide resonator model
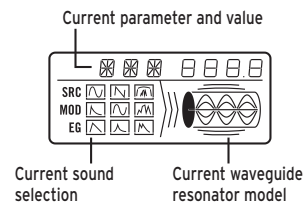
(POWER) button
Press this button to turn the volca drum on. To turn the volca drum off, hold this button for approximately one second.

Auto power-off
The auto power-off function will automatically turn the volca drum off after roughly four hours have passed with no sound being produced. The auto power-off function can be disabled using the global parameters. (See Global parameters.)

DC 9V ⬦⊖⬦ Jack
Connect the plug end of the optional AC adapter to this jack.
⚠ Only use the specified AC adapter. Using any AC adapter other than the specified model could damage the volca drum.

MIDI IN connector
By connecting a MIDI cable to this input, the volca drum can be played and controlled by the MIDI output of an external device.
TIP: The MIDI implementation chart can be downloaded from the Korg website.

Setting the MIDI channel
1. While holding down the REC button, turn the volca drum on.
2. Step buttons 1 to 16 correspond to the MIDI channels 1 to 16. Press the button that corresponds to the desired channel, and the LED below the step button will light up.
TIP: Tapping the step for the selected channel (LED lit up) cancels the selection and reverts to part 1-6 assigned to channels 1-6. (factory default)

SYNC (IN, OUT) jacks
These jacks allow you to synchronize your volca drum to another Korg volca, or other compatible equipment–including an analog sequencer or a DAW. The polarity of the SYNC jacks can be set using the global parameters.
• **SYNC OUT:** A 5 V pulse of 15 ms is sent at the beginning of each step.
• **SYNC IN:** If this jack is connected, the internal step-clock will be ignored, and the volca drum sequencer will advance according to the pulses received here.

(Headphone) jack
Connecting your headphones to this 3.5mm stereo mini jack will mute the volca drum's internal speaker and allow you to create music in private.

VOLUME knob
Set the output level of the volca drum.
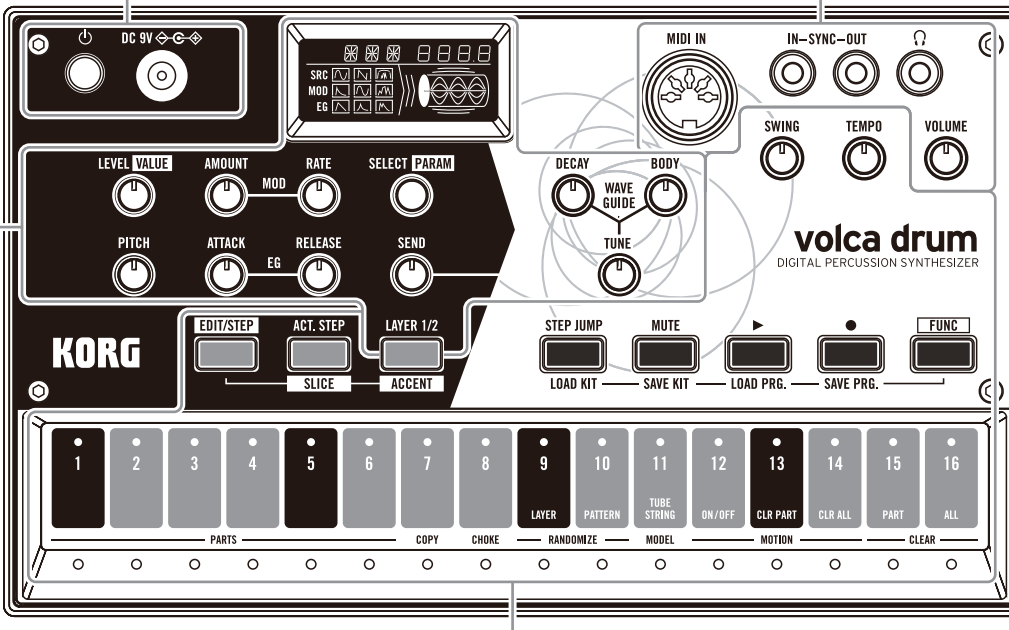
Sequencer and functions

TEMPO knob
Set the speed of the sequencer.

SWING knob
This knob moves even-numbered steps a maximum of 75% backward. Hold down the FUNC button while turning this knob to move the steps in the opposite direction.

Step buttons 1 to 16
By default, step buttons 1 to 6 are used to trigger and select parts. These buttons also represent the 16 steps of the internal sequencer, and provide access to various functions.

EDIT/STEP button
Enter step edit mode and enable access to the SLICE and ACCENT buttons. Press a step button (1–16) to toggle that step on/off for the selected part. Also, while holding a step button, the LEVEL [VALUE] knob sets the probability for that step to be played. Press this button again to exit.

SLICE button: Enter slice edit mode. Press step buttons (1–16) to toggle slicing of that step on/off for the selected part. Also, while holding a step button, the LEVEL [VALUE] knob sets the number of slices for that step. Press this button again to exit.

ACCENT button: Enter accent edit mode. Press step buttons (1–16) to toggle accents on/off for the selected part. Also, while holding a step button, the LEVEL [VALUE] knob sets the amount of accent for that step. Press this button again to exit.

ACT. STEP button
Enter active step edit mode. Press step buttons (1–16) to set steps as active/inactive for the selected part. Inactive steps will be skipped during playback. Press this button again to exit.
TIP: Use different active step settings on each part to create phasing polyrhythms.

STEP JUMP button
Enter step jump mode. Pressing a step button (1–16) will jump to that step. Press again to exit.

MUTE button
While holding this button, press a step button (1–6) to mute/unmute the corresponding part.

▶ (PLAY) button
Start/stop sequencer playback. This button will light up during playback.

● (REC) button
Record your performance on step buttons 1–6, and on the transparent sound control knobs if motion sequencing is enabled. Pressing this button while playback is stopped will enter record-ready mode; recording will start when the PLAY button, or a step button (1–6) is pressed. Pressing this button during playback will start recording from the point at which you pressed the button.
TIP: During playback, knobs with recorded motion will light up.
TIP: When motion sequencing is enabled, record will be automatically deactivated one cycle after the first knob motion is recorded.

Installing the batteries
On the back panel, locate the battery compartment and slide off the cover. Insert the batteries–being sure to observe the correct polarity–and then replace the battery cover.
⚠ Turn the volca drum off before replacing the batteries.
⚠ Remove depleted batteries at once. Depleted batteries left in the battery compartment may leak over time, and may cause malfunctions. Also, remove the batteries if you will not be using the volca drum for an extended period of time.
⚠ Do not mix partially used batteries with new ones, and do not mix batteries of differing types.

Battery level indicator
When the volca drum is turned on, the LEDs below the step buttons indicate the remaining amount of battery power. If all LEDs are lit up, the batteries are completely full. Fewer lit LEDs mean that the battery level is correspondingly lower.
⚠ When using the AC adapter, the remaining battery level will not be indicated correctly.
TIP: Either alkaline or nickel-metal hydride batteries can be used. In order for the remaining battery level to be detected and indicated correctly, the type of batteries being used must be specified in the global parameters of the volca drum.
TIP: If the batteries are running low during usage of the volca drum, the low battery warning "bt.Lo" will appear in the display. If the batteries run down completely, the volca drum automatically turns off.

Global Parameters

1. While holding down FUNC button, turn on the volca drum.
2. Use the step buttons 1–8 to set your preferences for any or all of the global parameters. (Refer to the table.)
3. When you have finished, press the ● (REC) button. Your settings will be saved, and the volca drum will restart. To cancel without making changes, press the ▶ (PLAY) button.

Button		LED lit up		LED unlit	
	Parameter	Status	Display indication	Status	Display indication
1	Auto power-off function	*Enabled	APO on	Disabled	APO oFF
2	Battery type selection	Nickel-metal hydride	BAT nIck	*Alkaline	BAT alka
3	Sync Out polarity	Fall	SYO Low	*Rise	SYO hIGh
4	Sync In polarity	Fall	SYI Low	*Rise	SYI hIGh
5	Tempo range settings	Full (10-600)	TMP FuLL	*Narrow (56-240)	TMP narr
6	MIDI Clock Src	*Auto	MCL auto	Internal	MCL Int
7	MIDI RX ShortMessage	*On	MST on	Off	MST oFF
8	Sync input/output unit	Once a step	1StP	*Once every 2 steps	2StP

*: Factory default setting

Specifications
● Keyboard: Multi-touch controller ● Sound generators: 6 digital parts (each with 2 osc. with pitch mod. and amp. e.g.), and a waveguide-based resonator effect. ● Connectors: Ω (Headphone) jack (ø3.5mm stereo mini-phone jack), SYNC IN jack (ø3.5mm monaural mini-phone jack, 20V maximum input level), SYNC OUT jack (ø3.5mm monaural mini-phone jack, 5V output level), MIDI IN connector ● Power supply: AA/LR6 alkaline battery ×6 or AA nickel-metal hydride battery ×6, DC 9V AC adapter (⬦⊖⬦) ● Battery life: Approximately 8 hours (when using alkaline batteries) ● Current consumption: 344 mA ● Dimensions (W×D×H): 193 × 115 × 39 mm / 7.60" × 4.53" ×1.54" ● Weight: 370g/13.05oz. (excluding batteries) ● Included items: Six AA alkaline batteries, Sync Cable, Owner's Manual ● Accessories (sold separately): AC adapter (DC 9V ⬦⊖⬦)
* Specifications and appearance are subject to change without notice for improvement.

FUNC (FUNCTION) button
When held down, this button enables access to various volca drum functions. See below for possible combinations. To exit any of these modes, press the FUNC button one more time.

FUNC + LOAD KIT: Enter load kit mode. Press a step button (1–16) to load the corresponding kit. Locations 1 to 10 come preloaded with preset kits.
TIP: A kit consists of the sound controls for each part, and the waveguide resonator.

FUNC + SAVE KIT: Enter save kit mode. Press a step button (1–16) to save the current kit to the corresponding memory location.

FUNC + LOAD PRG.: Enter load program mode. Press a step button (1–16) to load the corresponding program, and its associated kit. Locations 1–10 come preloaded with preset programs. Also, while holding a step button, pressing a second step button will load the corresponding sequence of programs in chain-mode; each program will be played consequently.
TIP: A program consists of the sequencer pattern for each part, motion sequencing data, and a kit number.

FUNC + SAVE PRG.: Enter save program mode. Press a step button (1–16) to save the current program to the corresponding memory location.
TIP: The value of the SWING, TEMPO and VOLUME knobs will not be saved.

FUNC + PARTS (1–6): Select one of the six drum parts without triggering it.

FUNC + COPY (7): Enter part copy mode. Press a step button (1–6), to copy the current part's sound controls, sequencer pattern and motion data to the corresponding part.

FUNC + CHOKE (8): Enter choke select mode. Press step buttons (1–6) to enable/disable choke for the corresponding part. Only one of the parts with choke enabled will play at any given time, prioritizing the lowest part number.

FUNC + RANDOMIZE LAYER (9): Randomize the sound controls for the selected layer(s).

FUNC + RANDOMIZE PATTERN (10): Randomize the steps, slices, accents and active steps for the selected part.

FUNC + MODEL (11): Toggle between the two waveguide resonator models.

FUNC + MOTION ON/OFF (12): Enable/disable knob motion sequencing. (See also REC button)

FUNC + MOTION CLR PART (13): Clear knob motion sequencing data for the selected part.

FUNC + MOTION CLR ALL (14): Clear all knob motion sequencing data.

FUNC + CLEAR PART (15): Clear the current part's steps, slices, accents, motion and resets active steps to the default value.

FUNC + CLEAR ALL (16): Clear steps, slices, accents, motion and resets active steps to the default value.

Returning all data to the factory defaults
1. While holding down the FUNC and PLAY buttons, turn on the volca drum.
"Fct rESt" will appear on the display, and the REC and PLAY buttons will blink.
2. Press the REC button to return to the factory defaults and start volca drum.
Press the PLAY button to cancel the reset operation and simply start volca drum.