KORG EFGSCJ3 Overcast Clouds Owner's Manual

volca nubass
VACCUME TUBE SYNTHESIZER

Owner's Manual

EFGSCJ 3

KONG INC. 4015-2 Yanokuchi, Inagi-City, Tokyo 206-0812 JAPAN
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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.

SUPPLIER'S DECLARATION OF CONFORMITY (for USA)

Responsible Party : KORG USA INC.
Address : 316 SOUTH SERVICE ROAD, MELVILLE, NY
Telephone : 1-631-390-6500
Equipment Type : VACUUM TUBE SYNTHESIZER
Model : volca-nubass

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

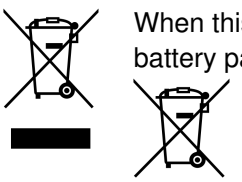
THE FCC REGULATION WARNING (for USA)

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 product, 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.

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.

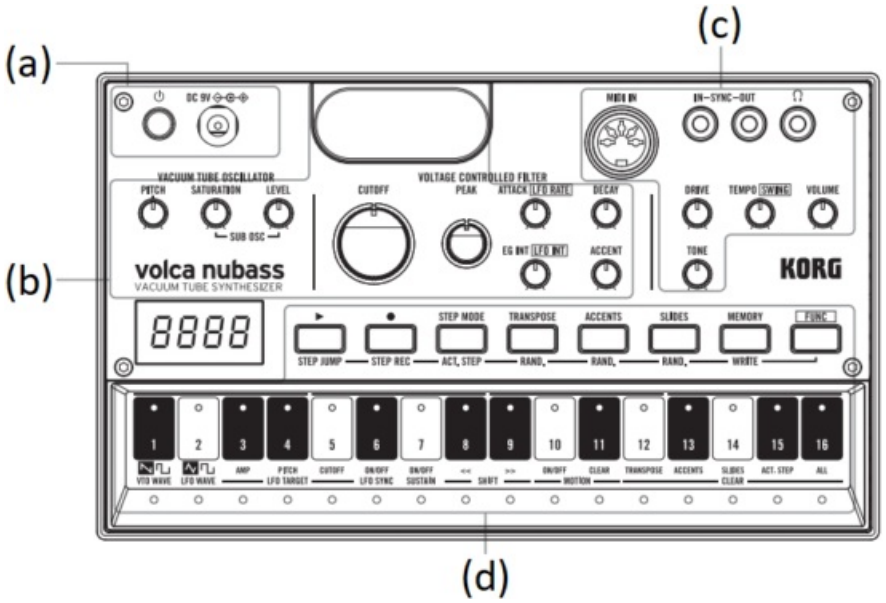
* All product names and company names are the trademarks or registered trademarks of their respective owners.

Introduction

Thank you for purchasing the Korg volca nubass, VACUUM TUBE SYNTHESIZER.
The Korg volca nubass is a bass synthesizer that features Korg's new and outstanding Nutube vacuum tube technology. The combination of an oscillator based on the vibrations of the vacuum tube and a sub-oscillator based on the drive of the vacuum tube offers a thick sound that only a vacuum tube can give, with warmth and richness. The volca nubass features a filter circuit based on famous nostalgic gear along with an overdrive circuit, giving a distorted acid bass sound that feels good to play.

About Nutube

Nutube is a new vacuum tube developed by KORG INC. and Noritake Itron Corporation and that utilizes technology from vacuum fluorescent displays.
As with conventional vacuum tubes, the Nutube is constructed with an anode, grid and filament, and operates as a complete triode tube. Furthermore, it generates the response and same rich harmonics characteristic of conventional vacuum tubes.



(a)

(POWER) button

Press this button to turn the volca nubass on. To turn the volca nubass off, hold this button for approximately one

second.

Auto power-off

The power-off function will automatically turn the volca nubass 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.

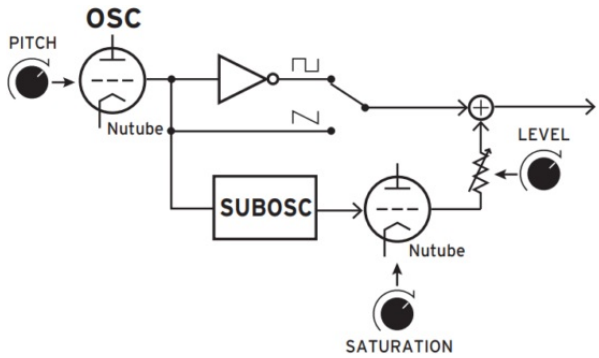
Only use the specified AC adapter. Using any AC adapter other than the specified model could damage the volca nubass.

(b)

VACUUM TUBE OSCILLATOR (VTO)

The volca nubass is equipped with two oscillators.

As with other analog instruments, the oscillators have a desirable organic nature to their tuning.
If you feel the pitch has drifted, please stop the sound for about 10 seconds. volca's auto-tuning function will correct itself automatically.



PITCH knob

Adjusts the oscillator pitch within a range of ±1 octave. Hold down the FUNC button while turning the knob to change the pitch in semitone steps.

SATURATION knob

Adjusts the saturation level of the Nutube's sub-oscillator.

LEVEL knob

Adjusts the volume level of the sub-oscillator.

VOLTAGE CONTROLLED FILTER (VCF)

This filter modifies the timbre (tonal character) by boosting or cutting specific frequency regions of the sound that's produced by the oscillator.
EG: This is triggered when a note is played (note on), changing the VCF cutoff frequency over time.
LFO: This is a low-frequency oscillator. Modulation can be applied to parameters to create cyclical changes.

CUTOFF knob

Adjusts the cutoff frequency. Turning the knob toward the left will darken the sound, and turning the knob toward the right will brighten the sound.

PEAK knob

This controls a resonant boost around the cutoff frequency of the filter. Turning up this knob introduces interesting harmonics around the cutoff.

ATTACK/LFO RATE knob

Determines how quickly the EG level rises. Turning the knob while holding down the FUNC button will adjust the LFO speed.

EG INT/LFO INT knob

Sets how strongly the EG changes the VCF cutoff. Turning the knob while holding down the FUNC button will adjust the LFO modulation depth. Hold down the FUNC button and press the step 2 button to select the LFO waveform.

DECAY knob

Determines how quickly the EG level decays. The EG level begins to decay right after the VCF cutoff reaches its maximum value following the start of the sound, or when the note is released (note off).

ACCENT knob

Sets the accent strength. The accent feature emphasizes a specified step by temporarily raising its volume and the EG INT level. To select the step to accent, press the ACCENTS button to set the volca nubass to accent edit mode.

(c)

MIDI IN jack

By connecting a MIDI cable to this input, the volca nubass 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 MEMORY button, turn the volca nubass 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.

SYNC (IN, OUT) jacks

These jacks allow you to synchronize your volca nubass 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 nubass 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 nubass's internal speaker and allow you to create music in private.

DRIVE knob

Analog overdrive which results in a more aggressive bass sound with interesting harmonics.

TONE knob

This changes the tone by adjusting the high range.

TEMPO/SWING knob

Sets the sequencer playback tempo. Turn this knob while holding down the FUNC button to move even-numbered steps a maximum of 75% back.

VOLUME knob

Set the output level of the volca nubass.

(d)

Sequencer and functions

Step buttons 1 to 16

These function as step buttons for the sequencer and the keyboard.

▶ (PLAY) button

Start/stop sequencer playback. This button will light up during playback.
While holding down the FUNC button, press the ▶ (PLAY) button to enter step jump mode. Press a step button between 1 and 16 while a sequence is being played to play that step next. Pressing a step button while the sequencer is stopped (the button lights) causes playback to begin from that step. Press the FUNC button to exit step jump mode.

● (REC) button

Record your performance on step buttons 1-16, 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 (1–16) 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.

Step recording

While the sequencer is stopped, press the ● (REC) button while holding down the FUNC button to enter step recording mode.
You can sequentially input the notes for each step of the sequence. The LEDs below the step buttons indicate the current step.
Press step button 1 to 16 to specify the note. Removing your finger from the step button stops the input and continues to the next step. The following operations can be performed, except while playing the step button.
▶ (PLAY) button: Pressing this button plays back the sequence being recorded, then continues to the next step.
● (REC) button: Pressing this button deletes the current step being recorded, then continues to the next step.
FUNC button: Pressing this button exits step recording mode.

STEP MODE button

Press this button to enter step mode (the STEP MODE button will light up). Use the step buttons 1 to 16 as step buttons for the sequence. Press a step button to turn the step on or off. Steps that are turned on will be played. When a step with nothing recorded is turned on, the pitch for step 8 on the keyboard will automatically be recorded. Press this button again to exit step mode.

Active step mode

While holding down the FUNC button, press the STEP MODE button to enter active step mode (the STEP MODE button will blink). Each step of the current sequence can be turned on/off.
Steps that are turned off are disabled and will be skipped during playback and recording.
Press the FUNC button to exit active step mode.

TRANSPOSE button

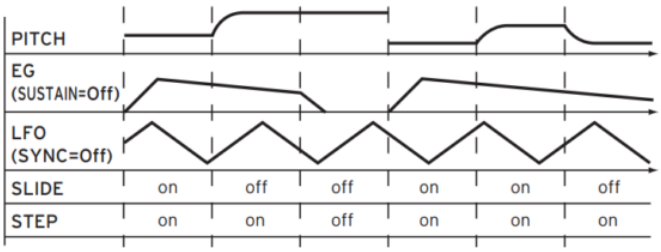
Press this button to enter transpose mode (the TRANSPOSE button will light up). For each step, you can raise the octave of the note as follows: 0 (button goes dark), +1 (button lights), +2 (button blinks while being held down). Press this button again to exit.
Hold down the FUNC button and press the TRANSPOSE button to randomize the transposition.

ACCENT button

Press this button to enter accent edit mode.
You can set the accent to one of three settings for each step (button goes dark, button lights, button blinks while being held down). Press this button again to exit.
Hold down the FUNC button and press the ACCENTS button to randomize the accent.

SLIDES button

Press this button to enter slide edit mode. For each step, you can set the slide as follows: off (button goes dark), short (button lights), long (button blinks while being held down). Press this button again to exit.
The EG and LFO will not be triggered on the step after a step that has been set to short or long. This further achieves the effect of connecting steps for a smooth change of the pitch



Hold down the FUNC button and press the SLIDES button to randomize the slide.

MEMORY button

The volca nubass is equipped with 16 memory locations that are used to save sequences.
While holding down the MEMORY button, press a step button between 1 and 16 to load the saved sequence.

CHAIN function

This function links multiple saved sequences.
While holding down the MEMORY button, press the step buttons between 1 and 16 (where sequences have been saved) to specify the range of sequences that you want to play. The sequences in that range will play back consecutively. For example, if you want to play back the sequences saved to buttons 1, 2 and 3 together in order, hold down the MEMORY button and press buttons 1 and 3.

WRITE (saving)

While holding down the FUNC button, press the MEMORY button to enter the save-ready condition (MEMORY button blinks). In this state, press a step button between 1 and 16 for which you wish to save the current sequence to each step button.

FUNC (FUNCTION) button

When held down, this button enables access to various volca nubass functions. See below for possible combinations. The LED below the button will light to confirm your selection.
FUNC + VTO WAVE (1): Sets the oscillator waveforms. LED unlit: sawtooth wave; LED lit: square wave.
FUNC + LFO WAVE (2): Sets the LFO waveform. LED unlit: triangle wave; LED lit: square wave.
FUNC + LFO TARGET AMP (3): When the LED is lit, the LFO will cyclically modulate the volume.
FUNC + LFO TARGET PITCH (4): When the LED is lit, the LFO will cyclically modulate the pitch (how high or low the sound is).
FUNC + LFO TARGET CUTOFF (5): When the LED is lit, the LFO will cyclically modulate the VCF cutoff.

FUNC + LFO SYNC ON/OFF (6): Configures whether the phase of the LFO will reset when a note is played on the keyboard. LED unlit: do not synchronize; LED lit: synchronize.
FUNC + SUSTAIN ON/OFF (7): Select from two combinations of ADSR settings for the cutoff EG. LED unlit: EG does not sustain; decay and release starts when the attack time ends or right after note off. LED lit: EG sustains; release starts right after note off.
FUNC + SHIFT << (8): Shifts (moves) all sequence information one step back (earlier).
FUNC + SHIFT >> (9): Shifts (moves) all sequence information one step forward (later).
FUNC + MOTION ON/OFF (10): Enable/disable knob motion sequencing. (See also ● (REC) button)
FUNC + MOTION CLEAR (11): Clear all knob motion sequencing data.
FUNC + CLEAR TRANSPOSE (12): Clears the transpose settings for all steps.
FUNC + CLEAR ACCENTS (13): Turns off the accent settings for all steps.
FUNC + CLEAR SLIDES (14): Turns off the slide settings for all steps.
FUNC + CLEAR ACT.STEP (15): Turns on the active step settings for all steps.
FUNC + CLEAR ALL (16): Clear all sequence data.

TIP: If you use the CLEAR function (11–16) by mistake, use the same CLEAR function right away to undo the operation.

Returning all data to the factory defaults

1. While holding down the FUNC and MEMORY buttons, turn on the volca nubass.
   “Ld.Pr” 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 nubass.
   Press the ▶ (PLAY) button to cancel the reset operation and simply start volca nubass.

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 nubass 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 nubass for an extended period of time.

Do not mix partially used batteries with new ones, and do not mix batteries of differing types.

* Batteries are not included, so please obtain them separately.

Battery level indicator

When the volca nubass 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 nubass.

TIP: If the batteries are running low during usage of the volca nubass, the low battery warning “bt.Lo” will appear in the display. If the batteries run down completely, the volca nubass automatically turns off.

Global Parameters

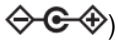
1. While holding down FUNC button, turn on the volca nubass.
2. Use the step buttons 18 to set your preferences for any or all of the global parameters. (Refer to the table.)
3. When you have finished, press the ● (REC) button. Your settings will be saved, and the volca nubass will restart. To cancel 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	AP.on	Disabled	AP.oF
2	Battery type selection	Nickel-metal hydride	bt.nH	*Alkaline	bt.AL
3	Sync Out polarity	Fall	So.Lo	*Rise	So.HI
4	Sync In polarity	Fall	SI.Lo	*Rise	SI.HI
5	Tempo range settings	Full (10-600)	tP.FL	*Narrow (56-240)	tP.nr
6	MIDI Clock Src	*Auto	CL.At	Internal	CL.In
7	MIDI RX ShortMessage	*On	St.on	Off	St.oF
8	Sync input/output unit	Once a step	StP.1	*Once every 2 steps	StP.2

*: Factory default setting

Main Specifications

- Keyboard: Multi-touch controller
- Sound generators: VTO (osc, sub osc), VCF, VCA, EG, LFO and overdrive
- Vacuum tube: Nutube 6P1
- Connectors: 🎧 (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 jack
- Power supply: AA/LR6 alkaline battery x6 or AA nickel-metal hydride battery x6, DC 9V AC adapter ()
- Battery life: Approximately 8 hours (when using alkaline batteries)
- Current consumption: 230mA
- Dimensions (WxDxH): 193 x 115 x 46 mm / 7.60″ x 4.53″ x 1.81″
- Weight: 370g/13.05oz. (excluding batteries)

- Included items: Sync Cable, Owner’s Manual
- Accessories (separately sold): AC adapter (DC 9V )

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

Contents

Documents / Resources

	KORG EFGSCJ3 Overcast Clouds [pdf] Owner's Manual EFGSCJ3, volca-nubass, EFGSCJ3 Overcast Clouds, EFGSCJ3, Overcast Clouds, Clouds

References

- User Manual