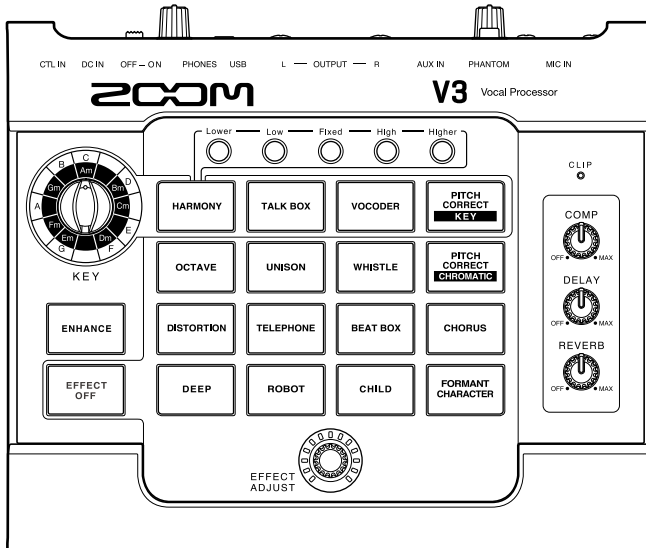# ZOOM®

V3

Vocal Processor

Operation Manual

You must read the Usage and Safety Precautions before use.

This Operation Manual can be downloaded from the ZOOM website (www.zoom.jp/docs/v3). This page has files in PDF and ePub formats.
The PDF file format is suitable for printing on paper and reading on a computer.
The ePub format can be read with electronic document readers and is designed for reading on smartphones and tablets.

Introduction

Thank you very much for purchasing a ZOOM **V3** Vocal Processor.

The **V3** has numerous functions for transforming vocals. Anyone can use it to achieve powerful vocal sounds with simple operations.

This vocal processor is ideal for recording and live performance. After enhancing volume and clarity, it can correct pitch or add harmony and reverb, for example.

We hope you will enjoy using it for many years.

■ Main features of the V3

Compact form

We packed the functions that vocalists need most into a compact unit that is easy to carry around. You can use it on a table top or attached to a mic stand.

Easy sound creation

Creating sounds is as easy as turning knobs and pressing switches.

Singing assistance

The compressor evens out volume and the enhance function adds clarity to make singing easier.

Delay, reverb and other effects

The selection of 16 effects optimized for vocalists include semitone pitch correction and a harmonizer that can automatically generate 3rd and 5th harmonies in the set key, as well as a robotic sound and aggressive distortion.

Delay and reverb can be used simultaneously with another effect.

USB audio interface

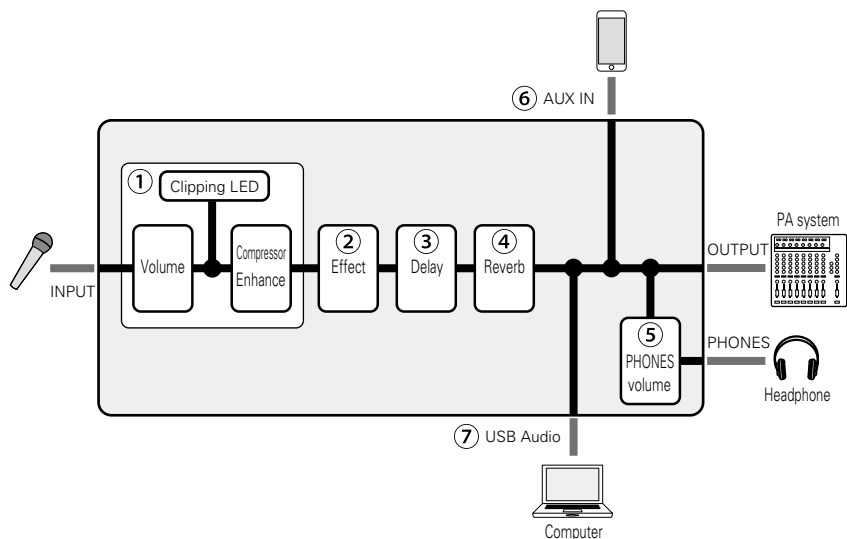The **V3** can be used as a 2-IN/2-OUT audio interface.

Contents

V3 structure

■ Signal flow

① Adjust the volume and tone of the mic input.
(→ "Adjusting the volume and tone" on page 9)

② Alter the voice or add harmony.
(→ "Using effects" on page 10)

③ Apply delay.
(→ "Adjusting the delay" on page 12)

④ Apply reverb.
(→ "Adjusting the reverb" on page 13)

⑤ Adjust the headphone volume.
(→ "Adjusting the volume and tone" on page 9)

⑥ Audio from smartphones, portable audio players and other devices can be input.

⑦ Audio data can be transferred to and from computers using the audio interface function.
(→ "Using audio interface functions" on page 13)

Names and functions of parts

■ Top
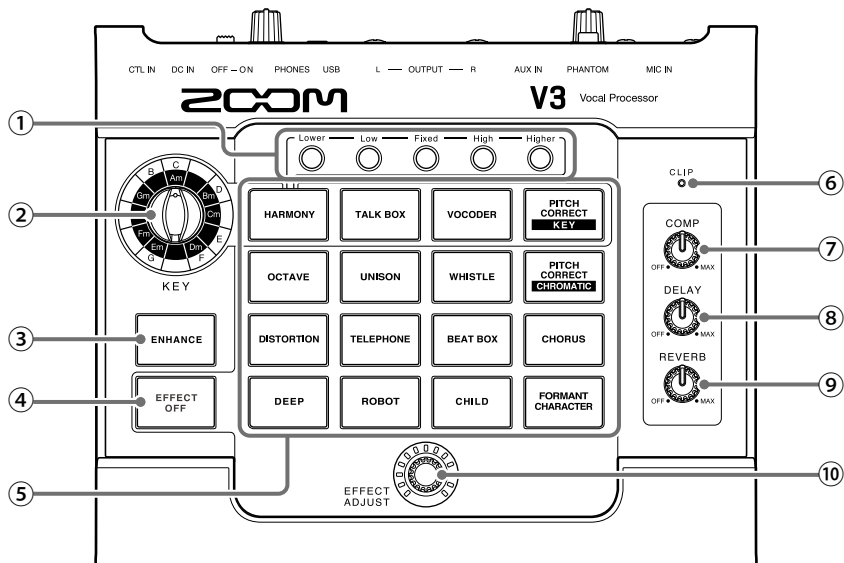
① **Harmony style buttons**
Press to activate harmony types.

② **KEY selection knob**
Select the key used for harmony and pitch correction.

③ **ENHANCE button**
Turn the ENHANCE function on/off.

④ **EFFECT OFF button**
This turns the effect off.

⑤ **Effect selection buttons**
Select from these 16 effect types.

⑥ **Clipping indicator**
This shows the input sound status, whether the power is on or off and the remaining battery charge.

⑦ **COMP knob**
Use to adjust the amount of compression.

⑧ **DELAY knob**
Use to adjust the amount of delay.

⑨ **REVERB knob**
Use to adjust the amount of reverb.

⑩ **EFFECT ADJUST knob**
Use to adjust the effect amount.

■ Back
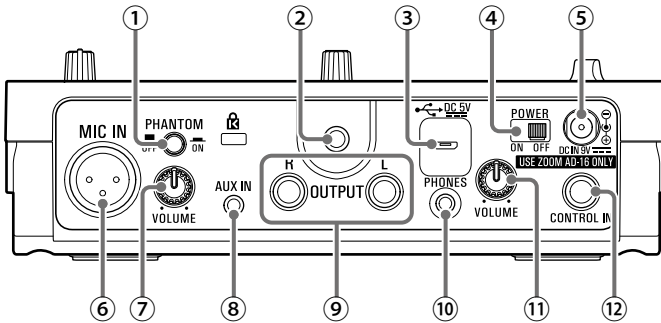
① **PHANTOM switch**
Turn +48 V phantom power ON/OFF.
Turn this ON when connecting a ZOOM SGV-6 mic or a condenser mic that requires phantom power, for example.

② **Mounting accessory attachment threads**
Use this to attach a mounting accessory (ZOOM HRM-7/HRM-11).

③ **USB (Micro-B) port**
A computer can be connected here. The **V3** can be used as an audio interface, and its firmware can be updated.
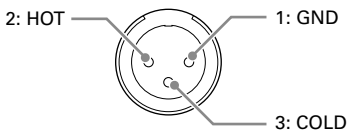A mobile battery, for example, can also be connected here to provide power.

④ **POWER switch**
This turns the power on/off.

⑤ **DC 9V AC adapter connector**
Connect the dedicated AC adapter (ZOOM AD-16) here.

⑥ **MIC IN jack**
Connect a mic here.

2: HOT   1: GND

3: COLD

⑦ **VOLUME knob**
This adjusts the mic input volume.

⑧ **AUX IN jack**
A portable music player, for example, can be connected here.

⑨ **OUTPUT jacks**
Connect these to a mixer, PA system, recorder or other audio equipment that can adjust sound balance.
For mono use, connect the OUTPUT L jack.

⑩ **PHONES jack**
Connect headphones here.

⑪ **PHONES VOLUME knob**
Use to adjust the headphone volume.

⑫ **CONTROL IN connector**
An expression pedal (ZOOM FP02M) can be connected here to control the effect.
When a footswitch (ZOOM FS01) is connected, it can be pushed to turn the effect off.

Making connections

■ Connection examples

Mic (ZOOM SGV-6 or commercially-available mic)
Use a mic cable to connect it to the MIC IN jack.

or

Portable music player, etc.
Adjust the volume on the connected device.

Computer

PHANTOM
OFF ON

When connecting a ZOOM SGV-6, condenser mic or other device that requires phantom power, set the PHANTOM switch to ON.

AC adapter (ZOOM AD-16)

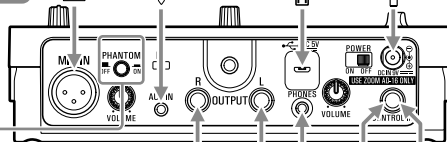Micro-B

Footswitch (ZOOM FS01)

Connect it to the CONTROL IN connector. This turns the effect off.

Mixer, PA system, recorder, etc.
Use a cable with a connector that suits the PA system or recorder input jacks.
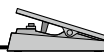
Expression pedal (ZOOM FP02M)

Connect it to the CONTROL IN connector. The pedal can be used to control the effect.

Stereo mini plug headphones

NOTE

Always set the PHANTOM switch to OFF when connecting a device that does not support phantom power. The device could be damaged if this is not done.

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■ Example of use with a main mic and an effect mic

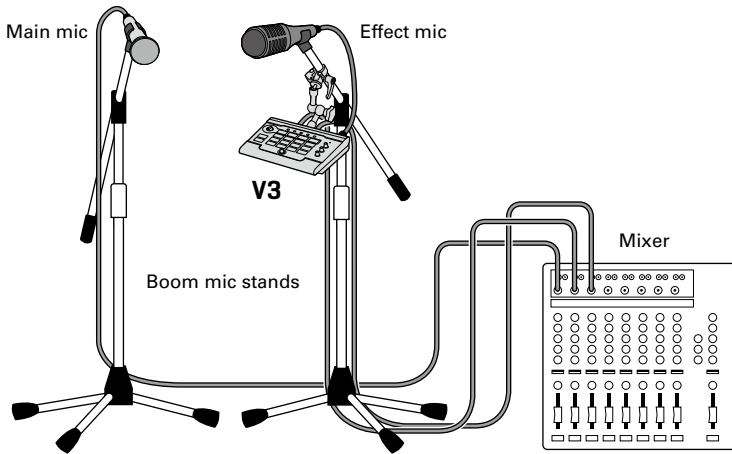This example shows the use of a main mic for regular vocals and an effect mic passed through the **V3** just for phrases when pitch correction or a vocoder sound is desired.

■ Attachment to boom mic stands

The **V3** can be attached to a boom mic stand by using a mounting accessory (ZOOM HRM-7/HRM-11).

1. Attach the mounting accessory to the mic stand boom.

Mounting accessory

Turn the handle to secure it.

Turn the knob to loosen joints in three locations.

2. Attach the mounting accessory to the **V3**.

Mounting accessory attachment threads

Turn the screw to secure it.

3. Adjust the **V3** to the desired angle and secure the mounting accessory.

Turn the knob to secure it.

7
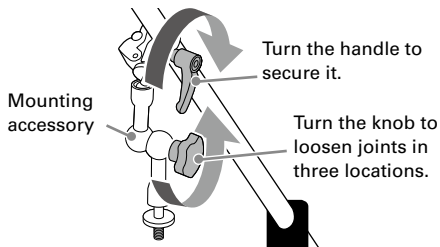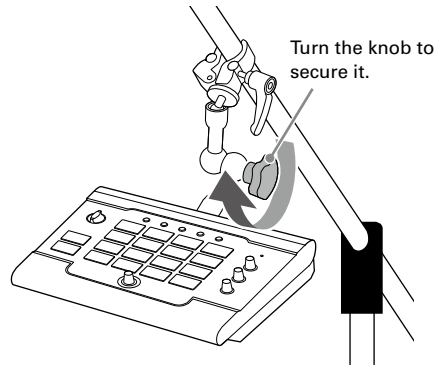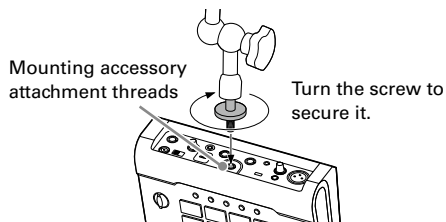
Loading batteries

Open the battery compartment cover on the bottom of the product and insert 4 AA batteries.

Press up and open
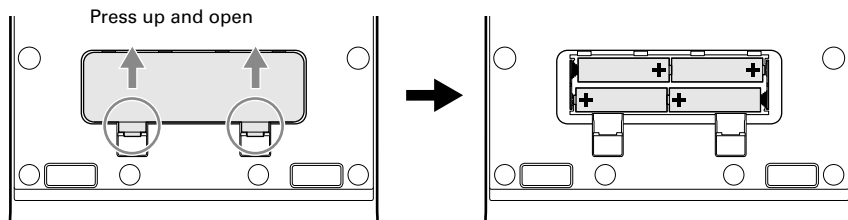
NOTE

- Set the type of battery used correctly so that the amount of remaining battery charge can be shown accurately. (→ "Making unit settings" on page 14)
- Whether or not there is input, when the remaining battery charge becomes low, ^{CLIP} ◎ will light red and then start blinking red. Replace the batteries with new ones.

HINT

Power for operation can also be supplied through the USB port.

Turning the power on

1. Minimize the volume of output devices.

2. Set POWER ON OFF to ON.

This turns the **V3** power on, and ^{CLIP} ◎ lights green.

3. Raise the volume of output devices.

ECO mode overview

By default, the ECO mode setting is ON, so the power will automatically turn off if no use occurs for 10 hours. (→ "Making unit settings" on page 14)

Adjusting the volume and tone

■ Adjusting the mic input volume

Lower ( ) Raise
VOLUME

NOTE

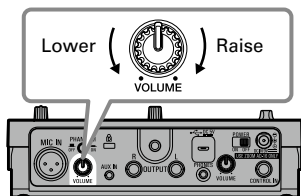Adjust the mic input volume to a level that enables the effect to function properly.

CLIP
◎
Lit red: Volume too high
Lit green: Volume just right
Unlit: Volume too low

While singing, adjust it so ◎ CLIP lights green.

■ Reducing volume variation (compressor function)

Input sounds over a certain level can be compressed to lower their volume and even out the overall volume.

1. Turn COMP .
OFF   MAX

Turn it right to increase the effect. Turn it completely left to turn the compressor function off.

Compressor function use

If a single song contains both shouting or other loud singing and quiet whisper-like singing, for example, matching the level to the loud singing will cause the quiet singing to become inaudible. Compressing the volume of loud singing to reduce overall volume differences makes quiet singing easier to hear.

■ Bringing out vocal character (enhance function)

1. Press ENHANCE so that it lights.

This turns the enhance function on.

The enhance function has two effects

- **Clarifying the voice:** By emphasizing high frequencies, this can make singing clearer, so that it is not lost in the sound of a band.
- **Suppressing "s" and other sibilant sounds:** These are "s" sounds and other sounds produced through gaps in the teeth when singing. Suppressing sibilant sounds that become distracting when the mic volume is turned up can make voices sound pleasanter.

■ Adjusting headphone volume

Lower ( ) Raise
VOLUME
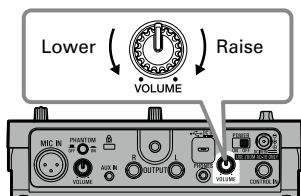
Using effects

The voice can be altered with pitch correction, pitch shifting or a vocoder effect, for example. Harmony can also be generated automatically according to the key setting. Furthermore, the altered voice and harmony can be further affected by delay and reverb, for example.

Select the key used for harmony and pitch correction.
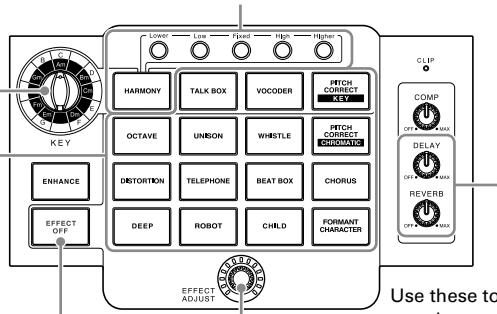
Use these to generate harmonies automatically according to the key setting.
→ "Setting the HARMONY key and pitches" on page 12

These can alter the sound of the voice. For example, they can correct pitch according to the key or make the voice sound childlike, vocoded or distorted.
→ "Altering vocals" on page 10

This turns the effect off.

Adjust the effect amount.

Use these to add delay and reverb to vocal sounds after the selectable effect.
→ "Adding delay and reverb" on page 12

> **NOTE**
>
> After effects are adjusted, their states are saved individually.

■ Altering vocals

1. Press an effect selection button.
The pressed button lights and its effect is selected.

2. Turn 🎛️.

This adjusts the effect.

Button	Explanation	Adjustment
HARMONY**	This generates harmony automatically according to the set key.* Set the harmony intervals generated using the harmony style buttons.	Balances original and harmony sounds
TALK BOX**	This creates a talk box sound effect. This corrects the pitch to the set key.* TALK BOX pitch correction follows a blue note scale and adds a ♭3 to major scales and a ♭5 to natural minor scales.	Pitch correction amount

Button	Explanation	Adjustment
VOCODER**	This creates a vocoder sound effect. This corrects the pitch to the set key.*	Pitch correction amount and octave setting
PITCH CORRECT KEY**	This corrects the pitch to the set key.* This can be adjusted from a gentle pitch correction to a mechanical effect that changes the pitch in steps.	Pitch correction amount
OCTAVE	This doubles the voice one octave down/up.	Balances original and effect sounds
UNISON	This creates an effect like singing the same part twice by duplicating the sound with the pitch and timing slightly shifted.	Effect mix level
WHISTLE	This has the effect of sounding like whistling even when just singing.	Amount of original sound in mix/whistle octave
PITCH CORRECT CHROMATIC**	This corrects the pitch to semitones. This can be adjusted from a gentle pitch correction to a mechanical effect that changes the pitch in steps. We recommend this setting when a song is in an unknown key or it has numerous key changes.	Pitch correction amount
DISTORTION	This distorts the voice heavily.	Distortion amount
TELEPHONE	This emulates a retro-sounding telephone.	Frequency band affected
BEAT BOX	This adds impact for beat boxing.	Boost amount
CHORUS	This chorus is full and gentle.	Effect mix level
DEEP	This makes the voice low-pitched and deep by lowering the pitch and changing the character greatly.	Voice character
ROBOT**	This makes the voice sound robotic.	Pitch of the robot voice sound
CHILD	This makes the voice high-pitched and childlike by raising the pitch and changing the character greatly.	Voice character
FORMANT CHARACTER	This changes the character of the voice without changing the pitch.	Voice character The original voice is restored when the EFFECT ADJUST knob is at its center position.

* For details about setting the key, see step 1 of "Setting the HARMONY key and pitches" on page 12.

**This follows the standard pitch setting ("Making unit settings" on page 14).

HINT

If an expression pedal (ZOOM FP02M) is connected, it can be used to adjust the effect (same as using

). If a footswitch (ZOOM FS01) is connected, it can be used to turn the selected effect off.
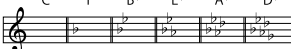
■ Setting the HARMONY key and pitches

When the HARMONY effect is selected, two of the five options can be selected to generate harmonies automatically based on the KEY setting.

1. Turn .

This sets the key.
When using sheet music, the key can be determined from the key signature.

Major key | C | F | B♭ | E♭ | A♭ | D♭
Minor key | Am | Dm | Gm | Cm | Fm | B♭m

Major key | C | G | D | A | E | B | F♯
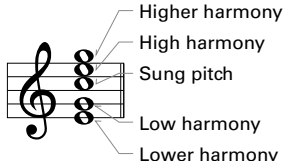Minor key | Am | Em | Bm | F♯m | C♯m | G♯m | D♯m

> **What is a key?**
> A key is a musical scale of 7 notes used in a song. Keys that sound bright are known as major keys and keys that sound dark are known as minor keys. The first note in the scale gives the key its name (A–G). For example, the bright-sounding scale that begins with C (Do) and has the seven notes C, D, E, F, G, A and B (Do, Re, Mi, Fa, Sol, La and Ti) is called the C major key. Likewise, the dark-sounding scale that contains the same notes, but begins with A (La) is the A minor (Am) key.

2. Press $\bigcirc^{\text{Lower}}$, $\bigcirc^{\text{Low}}$, $\bigcirc^{\text{Fixed}}$, $\bigcirc^{\text{High}}$ or $\bigcirc^{\text{Higher}}$.

Press ◯ repeatedly to cycle through volume levels: high → medium → low → off. The brightness changes with the level. Up to two harmony options can be activated. Activating a third harmony option will cancel the first one activated.

Harmony	Harmony pitch generated
Higher	+5 or +6 degrees
High	+3 or +4 degrees
Fixed	The note of the key selected in step 1 (fixed)
Low	−3 or −4 degrees
Lower	−5 or −6 degrees

- Higher harmony
- High harmony
- Sung pitch
- Low harmony
- Lower harmony

Harmonies are generated automatically according to the key.

> **Pitches added with the HARMONY function**
> "Degrees" are the number of steps in the scale from the fundamental pitch of the key. For example, when "Higher" is activated, Harmony will automatically be generated +5 or +6 degrees above the sung pitch.
>
> −8 −7 −6 −5 −4 −3 −2 Root +2 +3 +4 +5 +6 +7 +8
> Do Re Mi Fa Sol La Ti (Do) Re Mi Fa Sol La Ti Do

■ Adding delay and reverb

Adjusting the delay

This creates an effect like an echo.

1. Turn .

Turn it right to increase the effect. Turn it completely left to turn the delay effect off.

Adjusting the reverb

Adding reverberations gives the sound width and depth.

1. Turn .

Turn it right to increase the effect. Turn it completely left to turn the reverb effect off.

Using audio interface functions

■ Installing the driver

Windows

1. Download the ZOOM V3 Driver from zoomcorp.com to the computer.

The latest ZOOM V3 Driver can be downloaded from the above website.
Download the driver for the operating system being used.

2. Launch the installer and follow the instructions to install the ZOOM V3 Driver.

See the Installation Guide included in the driver package for detailed installation procedures.
If the power supplied by the USB bus is low, or you want to operate the unit with an adapter, use the dedicated AC adapter (ZOOM AD-16).

Mac computers and iOS/iPadOS devices

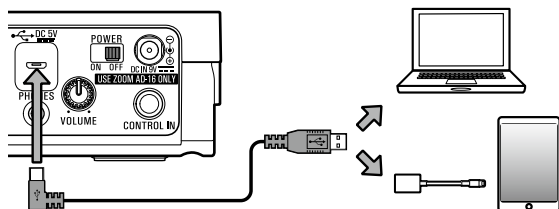A driver is not necessary when using a Mac or iOS/iPadOS device.

■ Connecting to a computer or iOS/iPadOS device

1. Use a USB cable to connect the **V3** with the computer or iOS/iPadOS device.

Use a USB cable that supports data transfer.
Power can also be supplied through the USB port.
When using a cable designed only for power, other USB functions cannot be used.

Connecting to iOS/iPadOS devices
- Use a Lightning to USB camera adapter (or Lightning to USB 3 camera adapter).
- Power the **V3** using the dedicated AC adapter (ZOOM AD-16).

2. Set to ON.

Turn the **V3** on and connect the iOS/iPadOS device.
If connecting to a computer, continue with step 3.

3. When connecting a computer, set the **V3** as the sound device.

Making unit settings

See the table below for setting items and values.

1. While pressing and holding $\overset{Lower}{\bigcirc}$, $\overset{Low}{\bigcirc}$ or $\overset{High}{\bigcirc}$, set $\overset{POWER}{\underset{ON\quad OFF}{\boxed{\text{▥}}}}$ to ON.

The pressed button will blink.
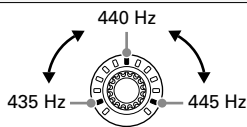
2. Turn.

The lit LED position shows the setting value.

3. Press the blinking button.

This saves the setting, and restarts the **V3**.

Pressing a button that is not blinking will cancel the setting.

Setting item and button pressed at startup	Setting range	Explanation
Standard pitch adjustment Lower $\bigcirc$	440 Hz 435 Hz — 445 Hz This can be adjusted in 1 Hz intervals.	This adjusts the standard pitch used for correcting vocal pitch and adding harmony. Note: The pitch used for "A" (La) is expressed in hertz (Hz). Vocal and harmony pitches can be matched to the instruments being played together by setting the standard pitch used by the **V3** to the same pitch.
Battery setting Low $\bigcirc$	Nickel-metal hydride batteries Alkaline batteries — Lithium batteries	Set the type of battery used correctly so that the amount of remaining battery charge can be shown accurately.
ECO mode setting High $\bigcirc$	Off — On	This function can be used to turn the power off automatically if unused for 10 hours.

■ Restoring factory default settings

1. While pressing and holding $\overset{Fixed}{\bigcirc}$, set $\overset{POWER}{\underset{ON\quad OFF}{\boxed{\text{▥}}}}$ to ON.

The pressed button will blink.

2. Press $\overset{Fixed}{\bigcirc}$.

This restores factory default settings and restarts the **V3**. Pressing anything other than $\overset{Fixed}{\bigcirc}$ will cancel initialization.

Initialization will overwrite all settings to their factory defaults. Be certain before using this function.

Troubleshooting

The unit will not power on

- Confirm that the POWER switch is set to ON. (→ "Turning the power on" on page 8)
- Confirm that the AC adapter is connected correctly. (→ "Making connections" on page 6)
- If using batteries, confirm that they are installed correctly. (→ "Loading batteries" on page 8)
- Replace the batteries with new ones. (→ "Loading batteries" on page 8)

There is no sound or output is very quiet

- Check the connections. (→ "Making connections" on page 6)
- Raise the volume of output devices.
- If using headphones, raise the headphone volume. (→ "Adjusting headphone volume" on page 9)

There is a lot of noise

- Confirm that the mic cable is not the cause.
- Use a genuine ZOOM AC adapter. (→ "Making connections" on page 6)

The sound distorts strangely or has an odd timbre

- Adjust the input volume to a suitable level. (→ "Adjusting the mic input volume" on page 9)
- Adjust the amount of compression. (→ "Reducing volume variation (compressor function)" on page 9)

The effect is not working

- Adjust the EFFECT ADJUST knob. (→ "Using effects" on page 10)
- Confirm that the effect is not turned off. (→ "Using effects" on page 10)

Batteries lose their charge quickly

- Confirm that you are not using manganese batteries. Alkaline batteries should provide about 3.5 hours of continuous operation.
- Confirm the battery setting.
  The setting must match the batteries being used in order to show the remaining battery charge accurately. (→ "Making unit settings" on page 14)
- Due to battery characteristics, they discharge more quickly when used in places with low temperatures.

V3 is not recognized by a computer, smartphone or tablet connected using a USB cable

- Check OS compatibility on the ZOOM website (zoomcorp.com).
- Confirm that the cable being used is not designed only for charging.

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