

DEXIBELL

AQUA
VIVA

OS 4.0



For: VIVO S7/S3, S1, VIVO P7/P3,
VIVO H7/H3, H1, COMBO J7





User Guide

Welcome to the user guide of new OS 4.0 "AQUAVIVA".

The Operating System is the heart of DEXIBELL musical instruments; it allows you to do things, which are virtually impossible on other keyboards. This is thanks to the ultra-fast quad-core processor hardware on which it runs.

With the OS 4.0 "AQUAVIVA", DEXIBELL has out-done itself yet again by developing the most powerful operating system ever created for a musical instrument.

If your DEXIBELL keyboard has not already been updated with this new operating system, you can download it from www.dexibell.com WEB site and easily install it in your keyboard: VIVO S7, S3, S1, SX7, VIVO P7, P3, VIVO H7, H3, H1, COMBO J7.

To ensure that you obtain the maximum enjoyment and take full advantage of this version, please read all sections of this user guide carefully.

Keep this manual handy for future reference.

1 Look What OS 4.00 Can Do

Check the Version

How to check the version

Press [MENU] button → "VERSION INFO"

The picture below shows how the "VERSION INFO" page appears. It's an example of S7 info page.



If the OS of your instrument is not "AQUAVIVA", download the update from the www.dexibell.com WEB site.

Customize the Global Keyboard Response (Key Touch)

Until now you could choose the keyboard response from 7 predefined curves: Heavy ++, Heavy+, Heavy, Normal, Light, Light+, Light++. With the new OS 4.00 you can modify the velocity curve as you wish, starting from one of the preset curves.

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Adjust the USB Audio Level (USB AUDIO)

You can adjust the audio output and input levels via USB.

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USB Master Device

Thank to the new OS 4.00 your keyboard **becomes Master as a computer!**

Just using only a USB Cable (A→B-type connectors), now your DEXIBELL Keyboard can **connect directly to another keyboard without using a Personal Computer.**

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Three New Effectors Added

The following three new effectors have been added for all parts of the keyboard:

- Wah-Wah
- Cut Filter
- Compressor

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USB Audio Streaming

Your DEXIBELL is **now** able to transmit/receive audio streaming at 24 bit 48 KHz.

You can connect a DEXIBELL keyboard or module to a PC with OSX or Linux or to an iOS device without the need for an external audio interface enabling you to directly exchange MIDI and Digital Audio data simultaneously.

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Sound Library

Thanks to the new OS AQUAVIVA 4.00, you can now decide which sound libraries (User or Factory or part of them) to load in the RAM Internal Memory. You can decide to completely replace the factory sounds loading all sound from the User sounds area or decide to load a part of the sounds from the factory area and another from the User area.

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Adjusting the Keyboard Velocity Response According to the Sound

Thanks to the "Velocity Comand" function, you can adjust the keyboard velocity for each sound by the T2L MENU. You can choose to expand the velocity of a Piano sound and compress the velocity of a strings or Pad sound.

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2 New USB Functions

Your Dexibell Becomes a Master (host)

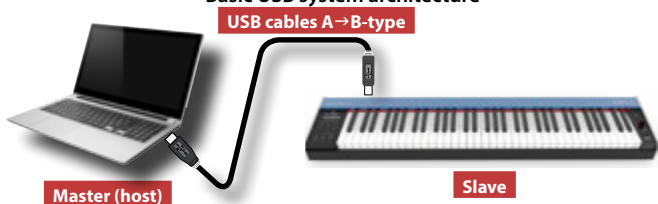
USB was designed to standardize the connection of computer peripherals (including keyboards, pointing devices, digital cameras, printers, portable media players, disk drives and network adapters) to personal computers.

Until Now

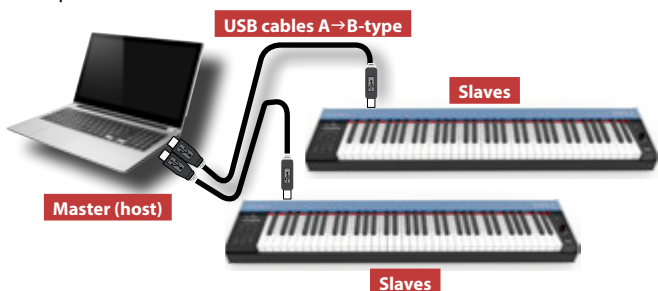
The basic USB system architecture is pretty simple and consists of the following main components:

- A Host Computer, Smartphone or Tablet
- One slave MIDI USB Devices as a keyboards.
- A physical bus represented by the USB cable that links the devices with the host

Basic USB system architecture



Until today, to connect 2 MIDI keyboards you needed a PC equipped with 2 USB ports:

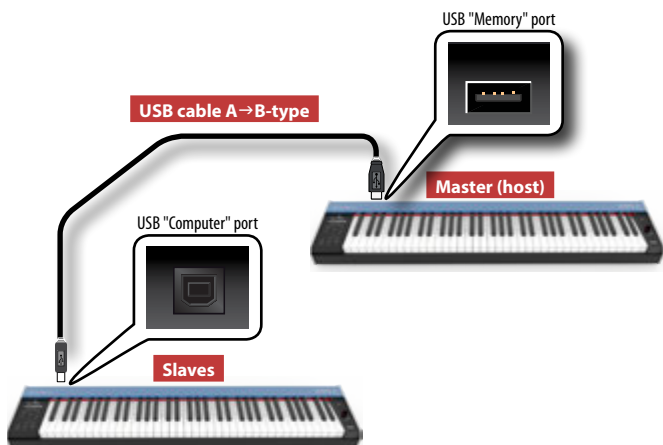


Today with the OS 4.00 AQUAVIVA

With the new OS AQUAVIVA your DEXIBELL keyboard becomes a master (host). You can connect other keyboards or modules from any brand directly to the DEXIBELL USB "Memory" port and exchange MIDI data without a computer and without using two MIDI cables.

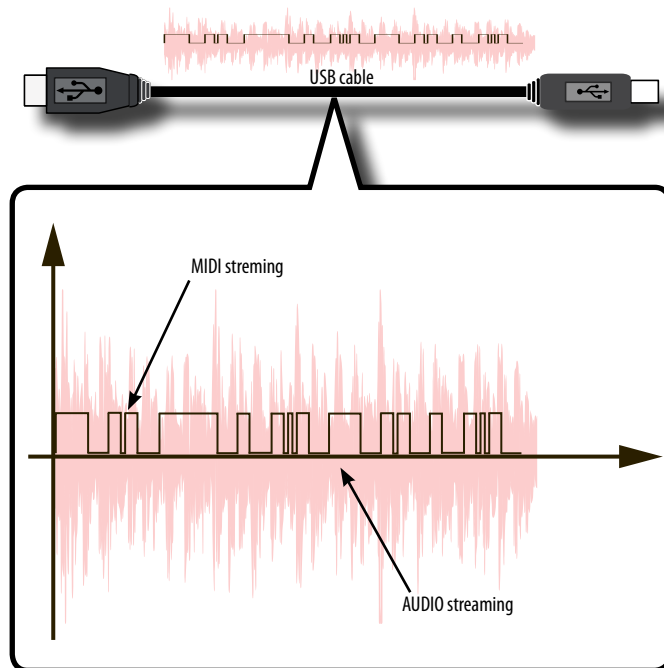
The connection consists of the following main components:

- A Host DEXIBELL keyboard equipped with the OS 4.00 AQUAVIVA.
- One slave MIDI USB Devices as a keyboards.
- A physical bus represented by the USB cable that links the devices with the host.



USB Audio Streaming and MIDI

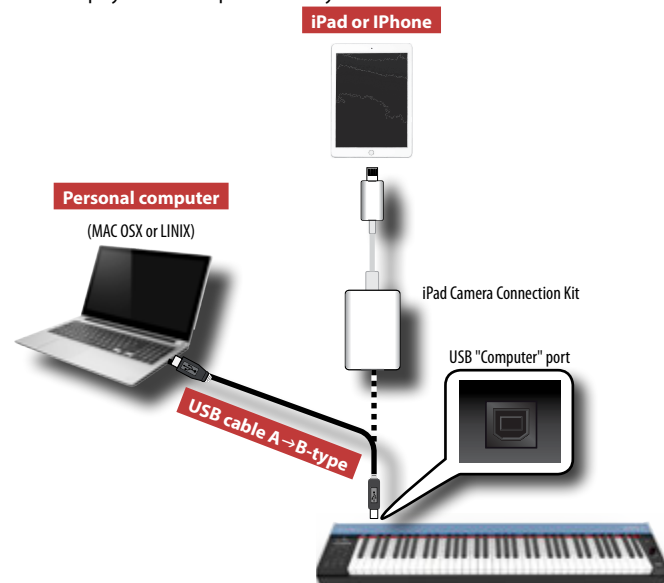
Until now your DEXIBELL was able to transmit/receive MIDI messages via USB cable. Using the same cable and thanks to the OS 4.00 AQUAVIVA, you can now transmit/receive also audio streaming at 24 bit 48 KHz.



You can connect a DEXIBELL keyboard or module to a PC with OSX or Linux or to an iOS device without the need for an external audio interface enabling you to directly exchange MIDI and Digital Audio data simultaneously.

The connection consists of the following main components:

- A Computer (MAC OSX or LINUX), iPad or iPhone.
- A DEXIBELL keyboard with OS 4.00 AQUAVIVA.
- A physical bus represented by the USB cable.

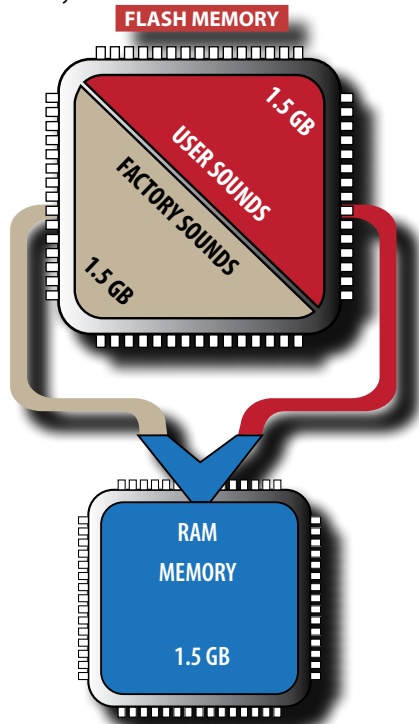


After the connection by the USB cable, the MAC or iPad/iPhone automatically recognize your keyboard as MIDI device and as audio device. You can use now audio/MIDI multitrack recording software application to record Audio and MIDI messages from your DEXIBELL keyboard.

See "Adjust the USB Audio Level (USB AUDIO)" (p. 10) to adjust the audio USB Level

3 Sound Library - More Flexibility

At the power on the instrument load the sounds from the Internal Flash Memory into the Internal RAM.



Thanks to the new OS AQUAVIVA 4.00, you can now decide which sound libraries (User or Factory or part of them) to load in the RAM Internal Memory. You can decide to completely replace the factory sounds loading all sound from the User sounds area or decide to load a part of the sounds from the factory area and another from the User area.

You can load the new sounds into the User area by taking them from the DEXIBELL library (www.dexibell.com) or from third-party sounds (.SF2 extension).

1. Press the [MENU/EXIT] button and use the [▲] [▼] buttons to select the "SOUND LIBRARY" function group.



A page like this appears:



You can note, at the left of each library name, a icons:

Icon	Explanation
	The library sound comes from the internal memory.
	The library sound comes from the external USB Memory.

At the bottom of the screen you can see the two new functions "REMOVE" and "ADD". Here below, we will explain how to remove or add sound libraries.

Remove and Add Sound Libraries

In the "SOUND LIBRARY" section you can now decide which libraries load into the RAM area.

NOTE

The removed libraries are not deleted. They remain the the Factory area ("INTERNAL ARCHIVE") ready to be reloaded again. See "Recovery a Library from the "INTERNAL ARCHIVE"" (p. 7) and "Restore the Factory Sounds (FACTORY SOUND)" (p. 9).

IMPORTANT TO KNOW

DEXIBELL - Sound Library

The sound (patch) in the DEXIBELL keyboard is composed of several oscillators that reproduce waveforms. The patch contains also information about Pitch/TVA,/TVF envelope, filters and so on. All this and more contributes to shapes the sound.

When we select a Sound library we select sounds that use the same waveforms. When we remove a Sound library we remove all sounds that use the same waveforms.

For example if we remove the "Electric Piano" library, we remove the following sounds:

Dyno Stage, Suitcase, Phaser EP, etc.

The same is when we adding a library, we add more sounds.

Removing a Sound Library



1. Use the [▲] [▼] buttons to select the sound library you want to exclude.
2. If you want to know the sounds contained in the library, press the [▶] button to open it.



3. If you want to listen the sounds of the library, use the [▲] [▼] buttons to select the sounds and play the keyboard.

If you don't need of these sounds, you can proceed with the removal.

4. Press the "REMOVE" Function button to perform the removal.

The display shows:



- Press the "YES" Function button to perform the removal. Press "NO" if you no longer want to perform the function.

NOTE ABOUT THE REMOVAL OF SOUND LIBRARIES

- Internal libraries** - The internal libraries are not permanently deleted. They are stored in factory memory area ("INTERNAL ARCHIVE") ready to be reloaded again. See "Recovery a Library from the "INTERNAL ARCHIVE"" (p. 7) and "Restore the Factory Sounds (FACTORY SOUND)" (p. 9).
- External libraries** . The external libraries are permanently deleted. Make sure to have a backup, if you think you need them again.

Adding a Library



- Press the "ADD" Function button to add a library.

The display shows the libraries previous removed:



In the example above, the list of removed libraries is empty (no libraries has been previously deleted). In this case you can add only libraries from USB "Memory".

The following example shows that some libraries was removed and the list of "INTERNAL ARCHIVE"shows which they are:



- If you want get information about the internal free memory, press the "FREE SIZE" Function button.

The page shows the memory available express in MB and percent.

This function is useful to know how much available free memory you have to load new libraries.

Adding a Library from USB Memory

- To load the library into your USB Memory, please refer to "Importing USER Sound Library" in the owner's manual of your instrument.
- Insert the USB Memory into the USB port of your instrument.
- From the "INTERNAL ARCHIVE" page, press the "USB"

Function button to list the sound libraries in the USB Memory.

The following page is showed:



The instrument shows the sound libraries contained in the USB Memory's "\SOUND" folder.

Press the "INTERNAL" Function button to return to viewing the internal archive.

- Use the [▼][▲] buttons to select the sound library you prefer.
- To open the sound library, press the [▶] button.

The sound/sounds contained in the library are displayed.



- Use the [▼][▲] buttons to select the sounds and play the keyboard to listen them.

If the sounds are to your liking, you can import the library into the internal memory.

- if you want to know the size of the library, press the "INFO" Function button.



- Press the "IMPORT ALL" Function button to import the sound library.

The instrument asks you in which sound family you want to import the library:



- Use the [◀][▶] buttons to select in which sound family you want to import the library.

- Press the "EXECUTE" Function button to perform the function.

A confirmation message informs you that the sound library has been imported.

Recovery a Library from the "INTERNAL ARCHIVE"

Thanks to this function you can reload previously removed internal libraries.



11. Use the [▼] [▲] buttons to select the library you want reload into internal memory.

12. To open the sound library, press the [▶] button.

The sound/sounds contained in the library are displayed.



13. Use the [▼] [▲] buttons to select the sounds and play the keyboard to listen them.

If the sound is to your liking, you can import the library into the internal memory.

14. if you want to know the size of the library, press the "INFO" Function button.



15. Press the "IMPORT ALL" Function button to import the sound library.

The instrument asks you in which sound family you want to import the library:



16. Use the [◀] [▶] buttons to select in which sound family you want to import the library.

17. Press the "EXECUTE" Function button to perform the function.

A confirmation message informs you that the sound library has been imported.

Sound Setup (Collecting Sound Sets for a Performance)

This is a useful function that allows you to prepare a sound set for a performance. If, in a performance, you will use only piano sounds, you can create a Sound Set that contain only piano sounds. In this way you can use the maximum size of internal memory of the keyboard for piano sounds.

Exporting a Sound Set ("EXPORT SETUP")

This function export the sound set, that you have previously prepared, in a USB Memory.

1. Prepare your Sound Set using the functions previously explained: "ADD" and "REMOVE". See "Remove and Add Sound Libraries" (p. 6).
2. Insert a USB Memory into the USB port of your instrument.
3. Press the [MENU/EXIT] button and use the [▼] [▲] buttons to select the "SOUND SETUP" function group.



The "SOUND SET" page appears:



4. Use the [▼] [▲] buttons to select "EXPORT SETUP" and press the [▶] button to access the function.

The display changes to:



5. If you want to name your Sound Set, please refer to the owner's manual of your instrument.
6. Press the "OK" Function button to save your Set.
A confirmation message is temporarily showed.

Importing a Sound Set ("IMPORT SETUP")

This function import the sound set previously saved in a USB Memory.

NOTE

Before to import a Sound Set take in consideration that your current Sound Set, in the internal memory, will be replace.

You can lost external sound libraries previously loaded from a USB Memory. Regarding the internal sound libraries no problem, You can recover them in the "INTERNAL ARCHIVE". See "Adding a Library" (p. 7).

1. Insert a USB Memory that contains previously saved Sound Set into the USB port of your instrument.
2. Press the [MENU/EXIT] button and use the [▼] [▲] buttons to select the "SOUND SETUP" function group.

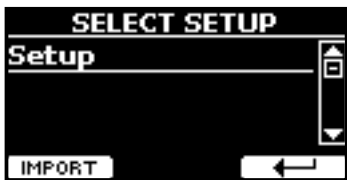


The "SOUND SET" page appears:



- Use the [▼] [▲] buttons to select "IMPORT SETUP" and press the [▶] button to access the function.

The display shows the list of the Sound Set in the USB Memory:



- Use the [▼] [▲] buttons to select the Sound Set.
- Press the "IMPORT" Function button to load the Sound Set.

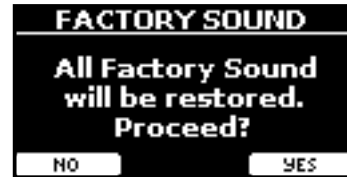
A confirmation message is temporarily showed.

Restore the Factory Sounds (FACTORY SOUND)

Using this function you can restore all sound libraries as they came out of the factory.

- Press [MENU/EXIT] button and select FACTORY SOUND function using the [▲], [▼] and [▶] buttons.

The following page appears:



- Press the "YES" Function button proceed.

The message "Complete" informs you that the VIVO H1 Sound Libraries has been restored.

If you no longer want to restore the sound libraries, press the "NO" Function button.

4 Other New Useful Functions

Adjusting the Keyboard Velocity Response According to the Sound

Thanks to the "Velocity Compend" function, you can adjust the keyboard velocity for each sound by the T2L MENU. You can choose to expand the velocity of a Piano sound and compress the velocity of a strings or Pad sound.

- Please refer to the owner's manual of your instrument on how to access the "T2L EDITOR" function. How to select the keyboard part and the sound to edit it.
- In the example below we selected the sound of the Main part. Use the [▲] [▼] buttons to move the cursor under the "Velocity Compend" function.



- Press the button [▶] to access the function.

The following page appears:

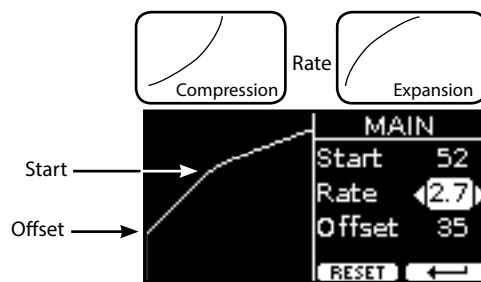


- Use the [▲] [▼] buttons to select one of the three parameters available.

- Use the [◀] [▶] buttons to adjust the parameter you selected.

Parameter	Setting	Explanation
Start	0~127	It is the starting point of the velocity curve where you want to operate with the compression or expansion.
Rate	0.1~8.0	It is the compression/expansion coefficient that you want to use.
Offset	0~127	It's the minimum value of velocity.

In the example below you can see that the Start point was set to 52, the "Offset" starts from the value 35 and the rate was set to 2.7.



- Press the "RESET" Function button to restore the parameters at the default value.

Customize the Global Keyboard Response (Key Touch)

Until now you could choose the keyboard response from 7 predefined curves: Heavy ++, Heavy+, Heavy, Normal, Light, Light+, Light++. With the new OS 4.00 you can modify the velocity curve as you wish, starting from one of the preset curves.

1. Press [MENU/EXIT] button and select SETTING→KEYBOARD TOUCH function using the [▲], [▼] and [▶] buttons.

The following page is shown.



2. Use the [◀] [▶] buttons to choose your desiderate velocity response.

The following settings are available:

Setting	Value	Explanation
Keyboard Touch	Light++, Light+, Light, Normal, Heavy, Heavy+, Heavy++, Fixed [1~127]	Please refer to the owner's manual.
*Fixed Value	1~127	Allows you to set the value when "Curve" is set to "Fixed".

3. To customize the velocity curve press the "VELOCITY" Function button.
4. Use the [◀] [▶] buttons to select one of the 5 points that characterize the curve: "pp", "p", "mf", "f", "ff".
5. Use the [▲] [▼] buttons to modify the value of the selected point.

Curve Point	Explanation
VELOCITY pp 22	"pp" standing for <i>pianissimo</i> and meaning "very soft".
VELOCITY p 44	"p" standing for <i>piano</i> and meaning "soft".
VELOCITY mf 66	"mf" standing for <i>mezzo-forte</i> and meaning "half loud".
VELOCITY f 88	"f" standing for <i>forte</i> and meaning "loud".
VELOCITY ff 110	"ff" standing for <i>fortissimo</i> and meaning "very loud".

6. Use the "RESET" Function button to restore the point at the default value.

Your velocity curve is automatically saved in the global area when the instrument is turned off.

1. Press [MENU/EXIT] button and select USB AUDIO function using the [▲], [▼] and [▶] buttons.

The following page is shown.



2. Use the [▲] [▼] buttons to select the parameter you want to edit.
3. Use the [◀] [▶] buttons to choose the desiderate audio level.

Added a New Function to the Expression Pedal and Wheel2 (FX MANUAL)

A new function was added to the Expression Pedal and Wheel 2. By the Expression Pedal or the Wheel 2 you can control the "Manual" parameter of the effector. See the "1: Wah-Wah" (p. 11) and the "2: Cut Filter" (p. 11).

The EXPRESSION PEDAL parameter is now changed as follows:

► EXPRESSION PEDAL



Parameter	Setting	Explanation
Funct.	Expression, Modulation, FX-Manual	Expression: The pedal is assigned to the expression. Modulation: The pedal is assigned to the Modulation. FX-Manual: You can control the "Manual" parameter of the effector. See the "1: Wah-Wah" (p. 11) and the "2: Cut Filter" (p. 11).
Part	Off, Main, Coupled, Lower, Main+Lw, Main+Cp	OFF: Select "OFF" if you don't need expression pedal. MAIN, COUPLED, LOWER, MAIN+LW, MAIN+CP: the damper pedal is assigned to the specified part or parts.

The WHELL2 ASSIGN parameter is now changed as follows:

► WHEEL2 ASSIGN



Adjust the USB Audio Level (USB AUDIO)

Use this function if you need to adjust the audio output and input levels via USB. For more information about USB audio streaming see "UBS Audio Streaming and MIDI" (p. 5).

Parameter	Setting	Explanation
Funct.	Modulation, Rotary S/L, Expression, FX-Manual Default: Modulation	Modulation: Using the WHELL 2 you will add modulation to the notes you are playing at that time. Rotary S/L: This function alternate between the fast and slow Rotary speeds. Expression: The WHELL 2 is assigned to the expression. FX-Manual: You can control the "Manual" parameter of the effector. See the "1: Wah-Wah" (p. 11) and the "2: Cut Filter" (p. 11).
Part	Off, Main, Coupled, Lower, Main+Lw, Main+Cp	OFF: Select "OFF" if you don't need of wheel 1. MAIN, COUPLED, LOWER, MAIN+LW, MAIN+CP: the pedal is assigned to the specified part or parts.

Three New Effectors Added

The following three new effectors have been added for all parts of the keyboard.

1: Wah-Wah

It is a type of effect that alters the tone and frequencies of the input signal to create a unique sound, mimicking the human voice and taking the onomatopoeic name "Wah-Wah".

Parameter	Setting	Explanation
Mode	Auto, Manual	Auto: The "Manual" parameter is automatically controlled by the internal LFO. Manual: The "Manual" parameter is controlled by the expression pedal or the WHELL 2 (if your instrument is equipped with WHELL 2). Remember that in addition, the Expression Pedal socket must be assigned to the function "FX-MANUAL". See "Added a New Function to the Expression Pedal and Wheel2 (FX MANUAL)" (p. 10).
Manual	0 ~ 127	Adjusts the center frequency at which the effect is applied. This parameter can be also controlled by the expression pedal or the WHELL 2 (if your instrument is equipped with WHELL 2). Remember that in addition, the Expression Pedal socket must be assigned to the function "FX-MANUAL". See "Added a New Function to the Expression Pedal and Wheel2 (FX MANUAL)" (p. 10).
Filter	Low Pass, High Pass, Band Pass, Peak	Low Pass : The wah effect will be applied over a low frequency range. High Pass: The wah effect will be applied over a high frequency range. Band Pass : The wah effect will be applied over a narrow frequency range. Peak: The wah effect will be applied over a specific center frequency.
Low Freq	100Hz ~ 10.0KHz	Selects the frequency of the low range.
High Freq	100Hz ~ 10.0KHz	Selects the frequency of the High range.
Low Q	0.5 ~ 10.0	Move this parameter to adjusts the width of the area around the Low or High Frequency.
Hi Q	0.5 ~ 10.0	Move this parameter to adjusts the width of the area around the Low or High Frequency.
LFO Rate	0.1Hz ~ 12.50Hz	Frequency of modulation.
LFO Curve	Linear, Quadratic	LFO curve trend.
Balance	0% ~ 100%	Adjusts the balance between original and the effect sound.

2: Cut Filter

This filter that attenuates ("cut") some frequency range.

Parameter	Setting	Explanation
Manual	0 ~ 127	Adjusts the center frequency at which the effect is applied. This parameter can be also controlled by the expression pedal or the WHELL 2 (if your instrument is equipped with WHELL 2). Remember that in addition, the Expression Pedal socket must be assigned to the function "FX-MANUAL". See "Added a New Function to the Expression Pedal and Wheel2 (FX MANUAL)" (p. 10).
Slope	12db/Octave, 24db/Octave	The slope of filter attenuation is usually quantified in decibels per octave.
Type	Low Pass, High Pass, Band Pass, Peak	Low Pass : Attenuates the frequencies above a cutoff frequency, allowing low frequencies to pass through the filter. High Pass: Attenuates the frequencies below a cutoff frequency, allowing high frequencies to pass through the filter. Band Pass : The filter is applied over a narrow frequency range. Peak: The filter is applied over a specific center frequency.
Low Freq	100Hz ~ 10.0KHz	Selects the frequency of the low range.
High Freq	100Hz ~ 10.0KHz	Selects the frequency of the High range.
Low Q	0.5 ~ 10.0	Move this parameter to adjusts the width of the area around the Low or High Frequency.
Hi Q	0.5 ~ 10.0	Move this parameter to adjusts the width of the area around the Low or High Frequency.

3: Compressor

This filter that attenuates ("cut") some frequency range.

Parameter	Setting	Explanation
Threshold	-40dB ~ 0dB	The compression is activated only when the input signal exceeds the threshold level. Input levels above the threshold will be compressed, and input levels below the threshold will not be compressed.
Ratio	1:1 ~ inf:1	This parameter determines how strong is the compression. <ul style="list-style-type: none"> At 1:1, the compressor has no effect. For all other values the output signal will be compressed in according to the ratio value. At Inf:1, the compressor becomes a brick-wall limiter; once the signal hits the Threshold, the output level will no longer increase, regardless of the input level.
Knee Width	0.0 ~ 1.0	Increasing this value will produce a more soft volume change around the Threshold level.
Attack Time	0ms ~ 250ms	This parameter determines how quickly the compressor will take affect after the signal crosses above the threshold.
Release Time	0ms ~ 1000ms	This parameter controls how quickly the compressor will stop reducing volume level after the signal falls below the threshold.
Makeup	-24dB ~ -24dB	Allows you to boost the compressed signal. as compression often attenuates the signal significantly.
Stereo Link	Off, On	Set the parameter "On" to operate in stereo mode.

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