

# EFNOTE PRO

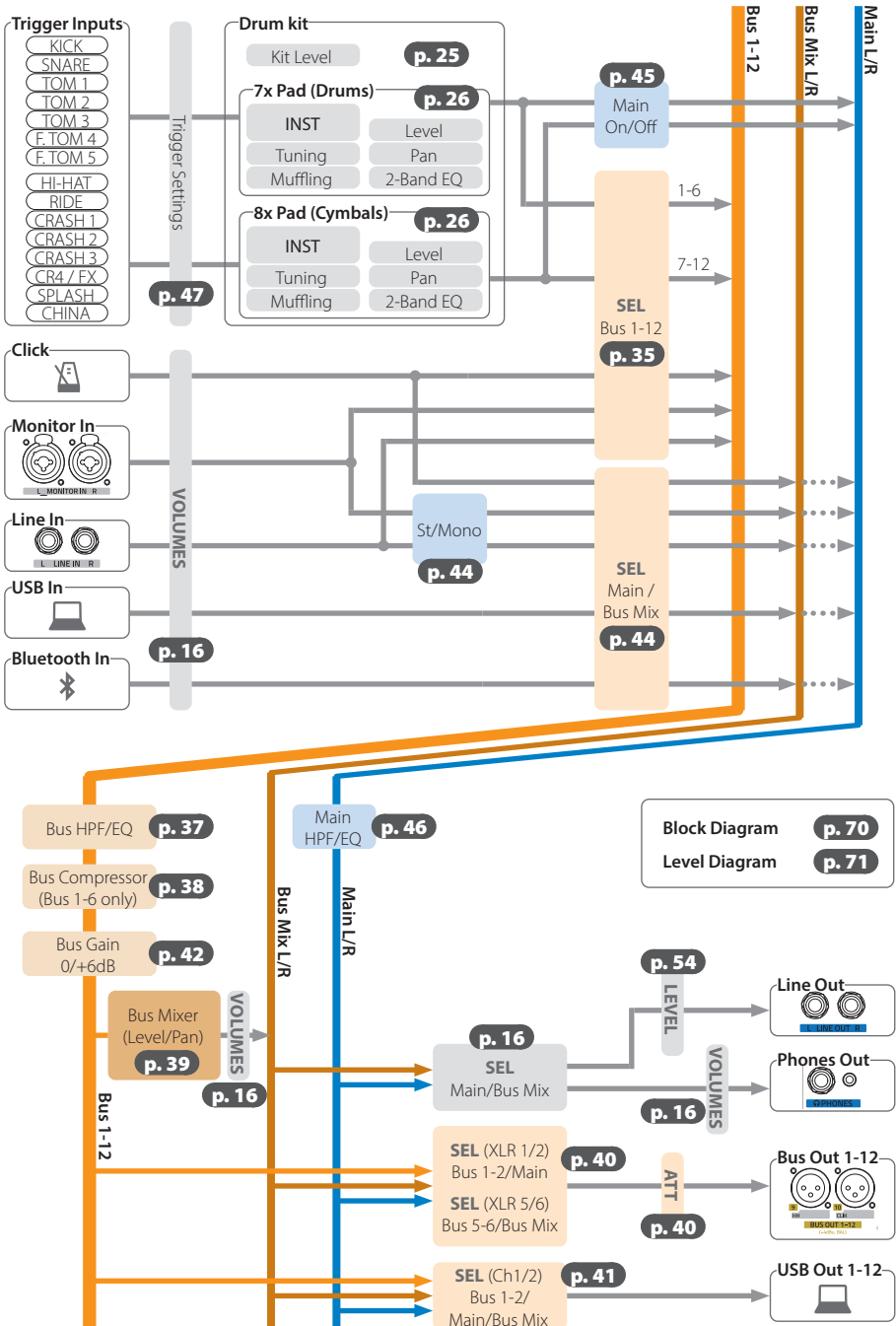
Sound Module

Reference Guide  
(for Ver 1.0)



EN

# Index on the Block Diagram



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- \* Before using this product, read “IMPORTANT SAFETY INSTRUCTIONS” in the Quickstart Guide.
- \* Read this guide in combination with the Quickstart Guide.
- \* The information in this document might differ from the product you’re using due to differences of the firmware version. For the latest firmware update information, refer to the EFNOTE website.
- \* All illustrations and screens appearing in this document are for the purpose of explaining operation, and may differ from the actual product or specifications.
- \* Specification and design are subject to change without prior notice.
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For the EFNOTE PRO latest information, or optional components information, please refer to the web below.

#### **EFNOTE PRO Web**

[ef-note.com/products/drums/EFNOTEPRO](https://ef-note.com/products/drums/EFNOTEPRO)

#### **Optional Components Information**

[ef-note.com/products/drums/components](https://ef-note.com/products/drums/components)



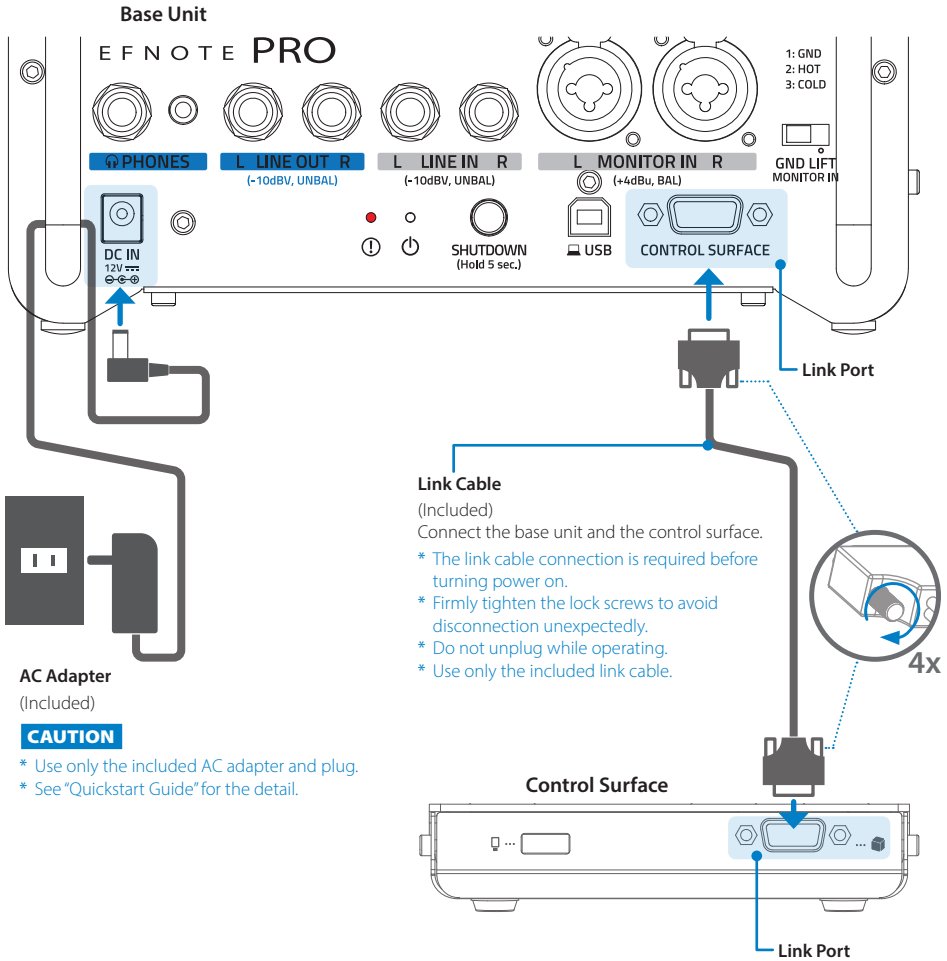
EFNOTE PRO



Optional Components

# Connection and Panel Description

## ■ Connecting the Power and Link Cable



AC Adapter  
(Included)

### CAUTION

- \* Use only the included AC adapter and plug.
- \* See "Quickstart Guide" for the detail.

### Link Cable

(Included)

Connect the base unit and the control surface.

- \* The link cable connection is required before turning power on.
- \* Firmly tighten the lock screws to avoid disconnection unexpectedly.
- \* Do not unplug while operating.
- \* Use only the included link cable.

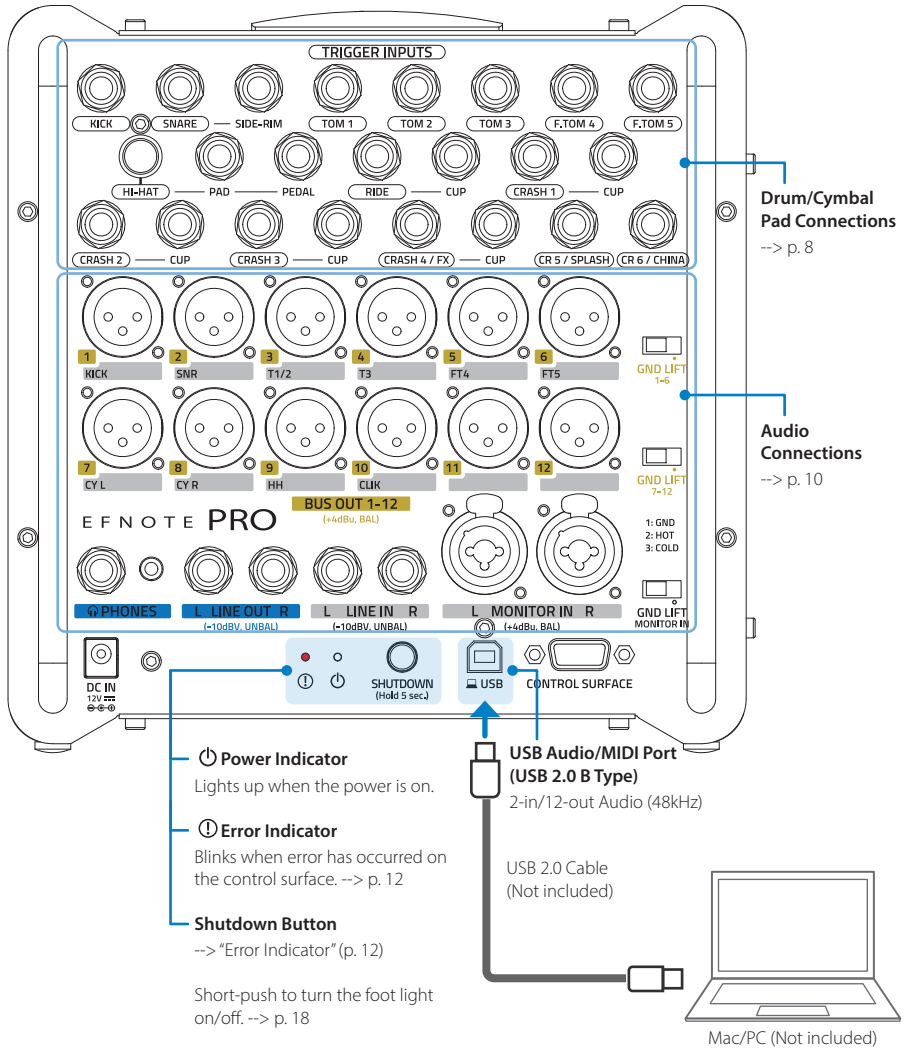
### Control Surface

### NOTE

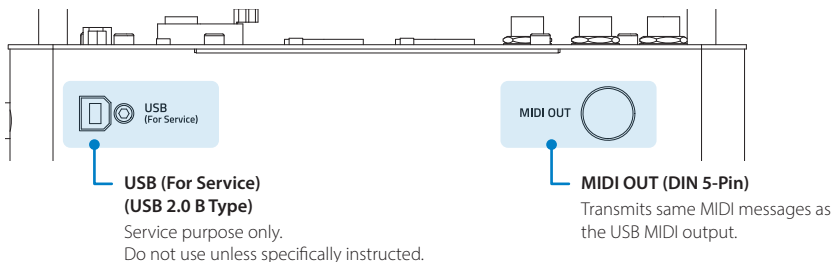
- \* In case the link cable accidentally unplugged during operation, the base unit will continue to perform so that drummer can continue playing. However, reconnecting the link cable during operation does not guarantee proper functioning, so restarting the EFNOTE PRO is required.

--> "Error Indicator" (p. 12)

# Base Unit

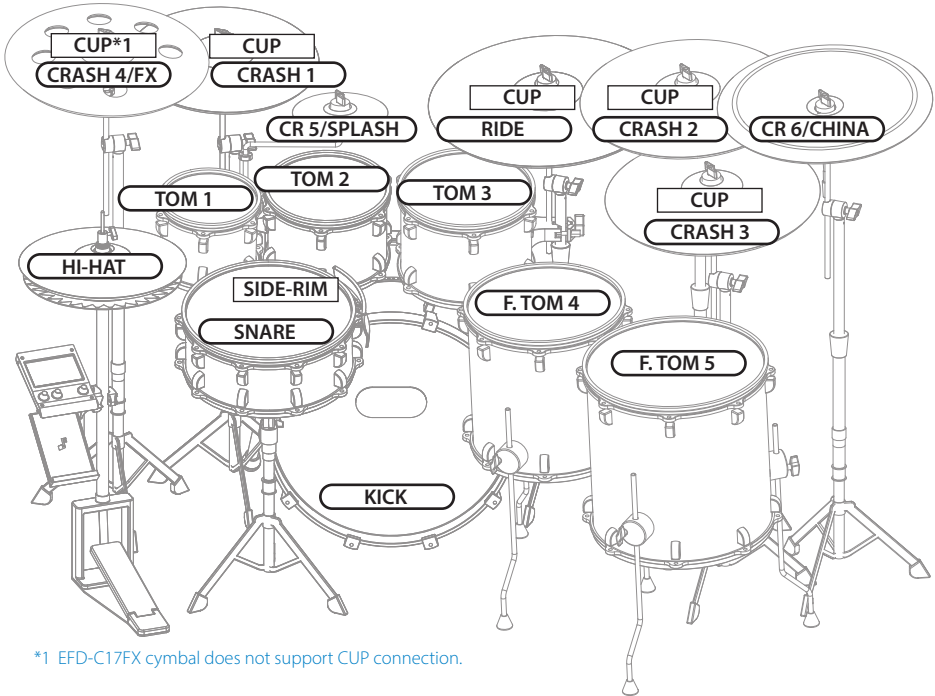


**(Right Side)**

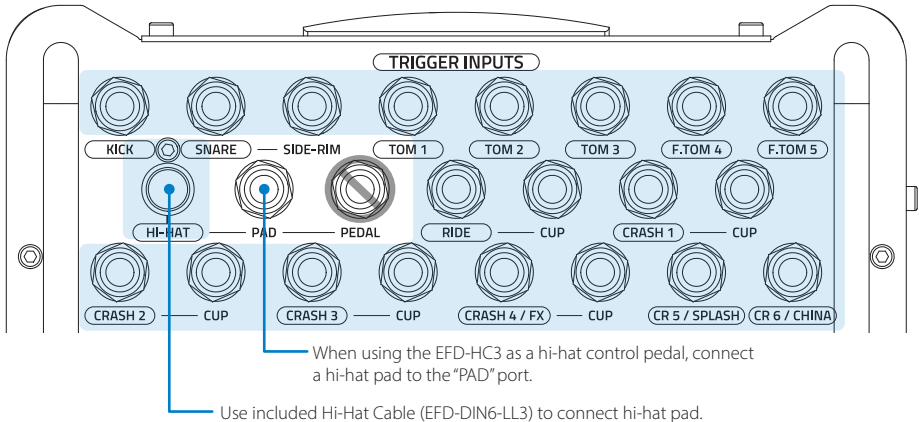


## ■ Drum/Cymbal Pad Connections

### Setup Example



\*1 EFD-C17FX cymbal does not support CUP connection.



\* To connect optional pads, additional trigger cables sold separately may be required.

\* The "PEDAL" port of hi-hat is currently not used.

### NOTE

The hardware shown in this manual, including kick pedal, hi-hat stand, snare stand, tom stand/holder and cymbal stands are optional, and may be included depending on the package purchased. For details, please contact the store where you purchased the product.

## Trigger Input Specification

Trigger Input	Zone Supported					Sound Assignable	Bus Assignable
	Head/Bow	Rim	Side-Rim	Edge	Cup		
KICK	✓	-	-	-	-	Kicks, Snare Drums, Toms, Percussion	Bus 1–6
SNARE	✓	✓	✓	✓	-		
TOM 1	✓	✓	-	✓	-		
TOM 2	✓	✓	-	✓	-		
TOM 3	✓	✓	-	✓	-		
F. TOM 4	✓	✓	-	✓	-		
F. TOM 5	✓	✓	-	✓	-		
HI-HAT	✓	-	-	✓	✓	Hi-Hats, Ride Cymbals, Crash Cymbals, Percussion	Bus 7–12
RIDE	✓	-	-	✓	✓		
CRASH 1	✓	-	-	✓	✓		
CRASH 2	✓	-	-	✓	✓		
CRASH 3	✓	-	-	✓	✓		
CRASH 4 / FX	✓	-	-	✓	✓		
CR 5 / SPLASH	✓	-	-	✓	-		
CR 6 / CHINA	✓	-	-	✓	-		

- About the optional drum/cymbal pads, see the web (p. 5).
- For the detail of the drum/cymbal pads, see the “Optional Components Reference Guide” on the web (p. 5).

### NOTE

- \* To avoid disconnecting the trigger cables unexpectedly, tie or clamp the cables.
- \* The trigger input circuit and the ELISE sensing processor are designed to maximize the performance in combination with EFNOTE pads. Performance cannot be guaranteed when used in combination with pads made by other companies.
- \* Failures and malfunctions caused by connecting pads made by other companies are not covered by the warranty.

## After connecting pads

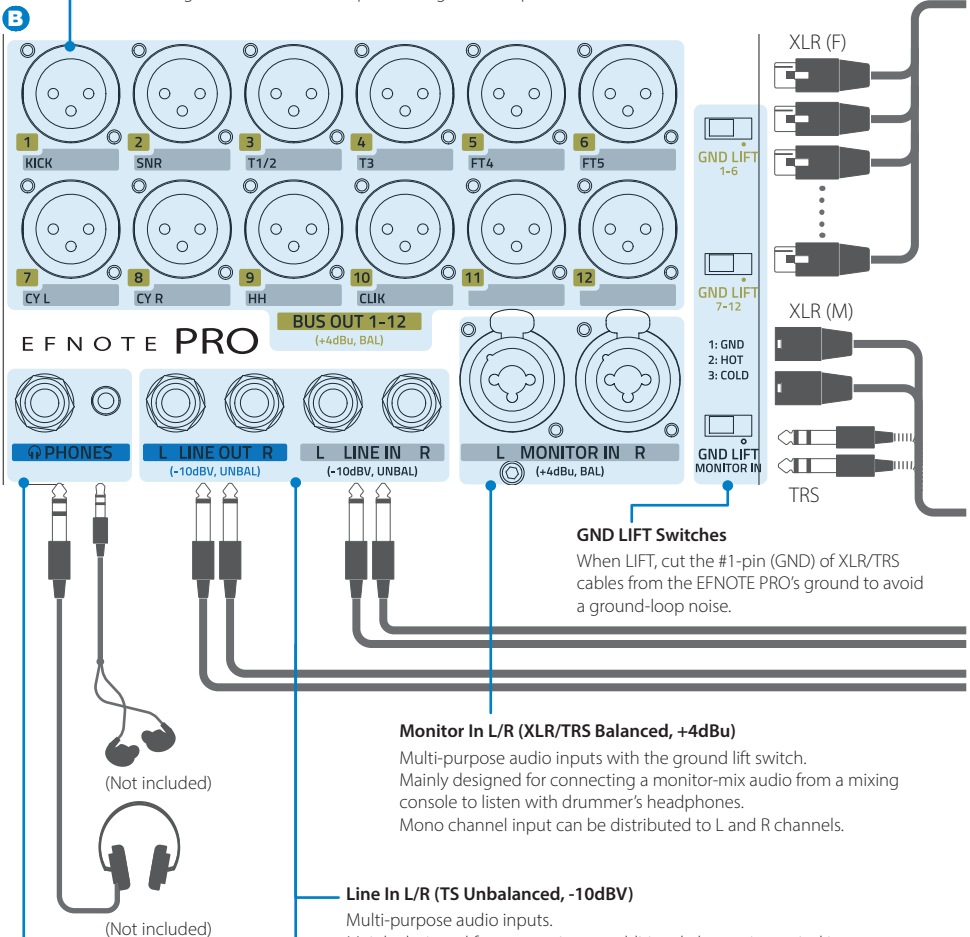
Be sure all pad models being connected are correctly configured on the trigger screen. And then, calibrate your hi-hat controller.

- Configure the pad model. --> p. 48
- Adjust the hi-hat sensor. --> p. 49

## ■ Audio Connections

### Bus Out 1-12 (XLR Balanced, +4dBu with Attenuator)

Drum's and cymbal's individual outputs can be replaced with microphones for acoustic drums. The built-in attenuator on the XLR outputs allow you to match the level with the input of any mixer. The built-in ground lift switches help to avoid ground-loop noise.



(Not included)

(Not included)

### Phones Outputs (1/4" + 1/8")

Independent phones outputs. Two headphones or in-ear monitors can be connected at the same time.

### Line In L/R (TS Unbalanced, -10dBV)

Multi-purpose audio inputs. Mainly designed for connecting an additional electronic musical instrument, or other audio sources. Mono channel input can be distributed to L and R channels.

### Line Out L/R (TS Unbalanced, -10dBV)

Always outputs same audio signal as the phones outputs.

### Monitor In L/R (XLR/TRS Balanced, +4dBu)

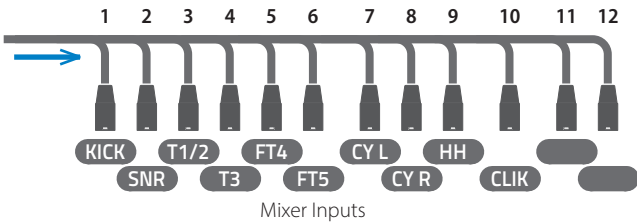
Multi-purpose audio inputs with the ground lift switch. Mainly designed for connecting a monitor-mix audio from a mixing console to listen with drummer's headphones. Mono channel input can be distributed to L and R channels.

### CAUTION

Be sure not to listen to audio at high volume. It can cause permanent hearing loss.

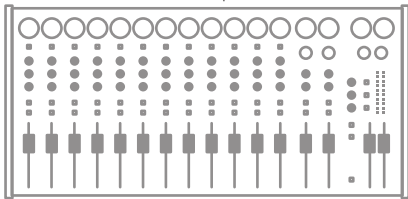
- \* Do not apply phantom power (+48V DC) to any input/output connectors. It may cause malfunction.
- \* Audio cables are not included.

Connection Example



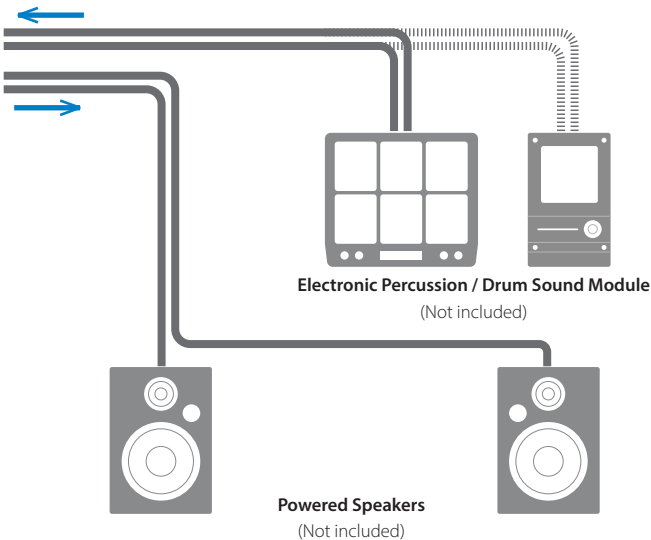
Default bus assignments

Bus	Pad/Source
1	Kick
2	Snare
3	Tom 1/2
4	Tom 3
5	Floor Tom 4
6	Floor Tom 5
7	Cymbals L
8	Cymbals R
9	Hi-Hat
10	Click
11	Line-In L
12	Line-In R



Mixing Console  
(Not included)

\* Kick/snare/toms can route to Bus 1-6 only, and hi-hat/cymbals can route to Bus 7-12 only.



Block Diagram

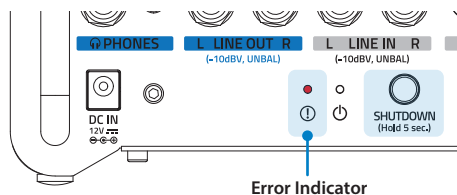
--> p. 70

## Error Indicator

Error Indicator	Description
Blinking per second	Communication between the base unit and the control surface has been lost.
Faster blinking (10 times/second)	Supplying the power to the control surface has been cut off because an over-current was detected in the link cable.

### In case the error indicator is blinking

Press and hold the [SHUTDOWN] button on the base unit for more than 5 seconds to turn off the power, and check if the link cable is connected correctly and if there is any problem with the link cable or the link port connectors.

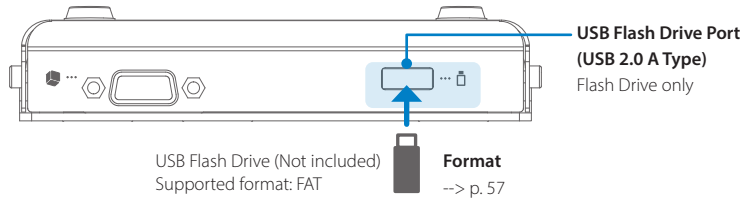


- \* If the case is not improved, please contact the store you purchased from, or your local distributor.
- \* In case the link cable is accidentally unplugged during operation, the base unit will continue to perform so that the drummer continue playing. However, reconnecting the link cable during operation does not guarantee proper functioning, so restarting the EFNOTE PRO is required.
- \* Use the [SHUTDOWN] button only when the surface unit cannot be used to turn off. Turning off with this button may result in loss of changes.



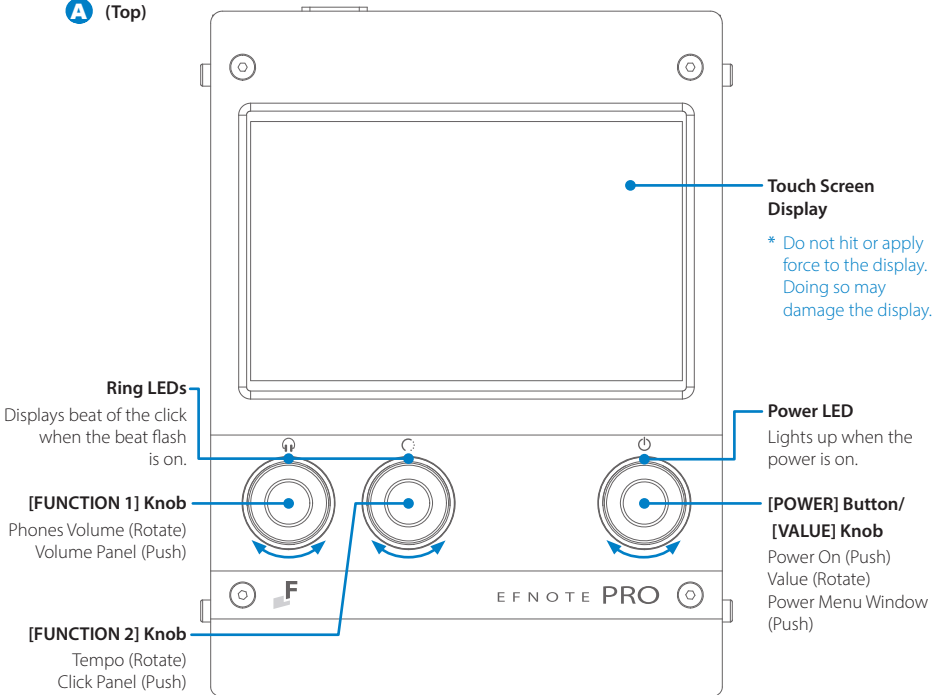
## Control Surface

### A (Rear)

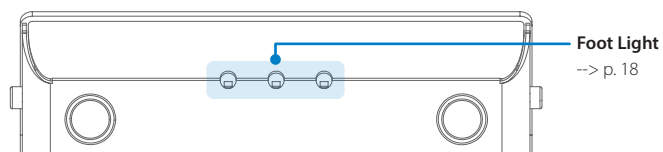


- \* Do not disconnect while the progress bar is shown in the display.
- \* Use a commercially available USB flash drive. The compatibility is not guaranteed for all commercially available USB flash drives. Some USB flash drives may not be compatible.

### A (Top)



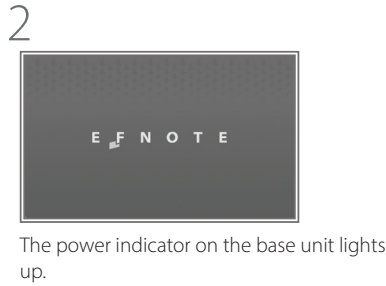
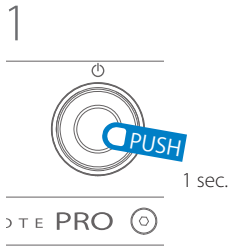
### A (Bottom)



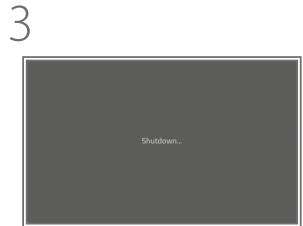
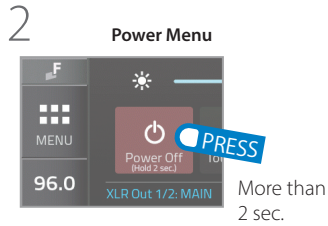
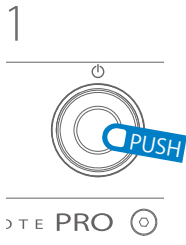
# Basic Operation

## ■ Power On/Off

### Power On



### Power Off



\* Without this procedure may result in loss of changes.

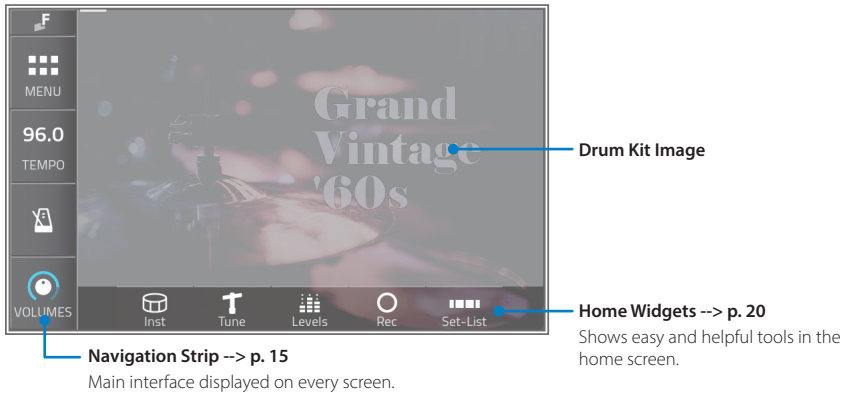
### Auto Power Saving

The auto power saving function will turn power off automatically after specified inactive period. This function can be disabled --> p. 54

## Home Screen

On the home screen, you can switch drum kits, operate the recorder and Set-List, and perform instant edit using the home widgets.

We recommend that you keep this screen displayed while playing.



### ■ Navigation Strip

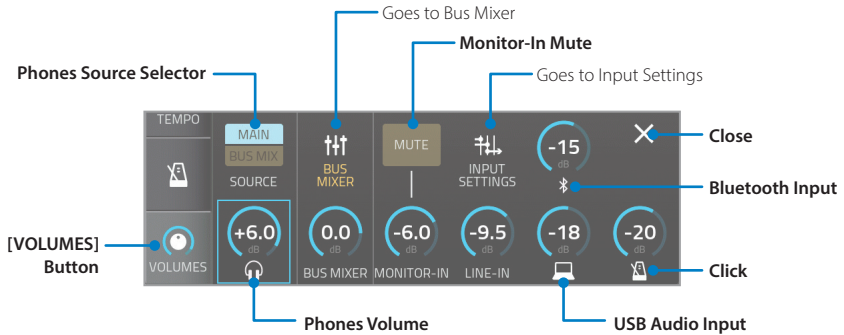
The navigation strip provides fundamental controls and menus, and is displayed on every screen for easy access at any time.

	<b>[F] Button</b>	Shows the Power Menu window. --> p. 18 • Pushing the [POWER] button also shows the Power Menu.
	<b>[MENU] Button</b>	Shows the Menu. --> p. 17
	<b>[TEMPO] Button</b>	Shows the Click Setup window. --> p. 17 • The current tempo is displayed on the button.
	<b>[HOME] Button</b>	Returns to the Home screen.
	<b>[CLICK] Button</b>	Starts/stops the click (metronome). --> p. 17 • The beat indicator is displayed on the button.
	<b>[VOLUMES] Button</b>	Shows the Volumes window. --> p. 16 • The volume indicator shows the current phones volume. • When the phones source is set to BUS MIX, the volume indicator is shown in yellow.
	<b>Trigger Level Meter</b>	Displays strength (velocity) of shots detected by the ELISE sensing processor.

## Volumes

The volumes window provides audio in/out volume settings.

Tapping the [VOLUME] button, or pushing the [FUNCTION 1] knob (as a default) shows this window.



Phones Source Selector	Selects either Main L/R or Bus Mix L/R, for the audio source of the Phones/Line-Out. * For normal use, MAIN should be selected. • The Bus Mix is a stereo output of the built-in Bus Mixer. • When BUS MIX is selected, the volume indicator on the [VOLUMES] button is colored in yellow.
Monitor-In Mute	Mutes/unmutes the Monitor-In audio signal.
Phones Volume	Phones level for both 1/4" and 1/8" jacks. The [Function 1] knob can also adjust this volume. • Line-Out level can be configured in the Settings/Option screen. * Clipping may occur when exceeding 0dB.
Bus Mixer Level	Output volume of the Bus Mixer.
Monitor-In Level	Input level of the Monitor-In. • The input can be switched between mono channel or stereo, in the Input Settings screen.
Line-In Level	Input level of the Line-In. • The input can be switched between mono channel or stereo in the Input Settings screen.
USB Audio Input Level	Input level of the USB audio input.
Bluetooth Input Level	Input level of the Bluetooth audio input.
Click Volume	Click (metronome) volume

**CAUTION** Be sure not to listen to audio at high volume. It can cause permanent hearing loss.

**Audio Block Diagram**

--> p. 70

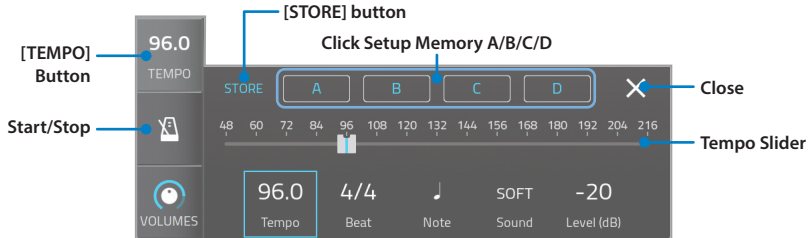
**Audio Level Diagram**

--> p. 71

## Click Setup (Tempo)

The click setup window provides click (metronome) settings.

Tapping the [TEMPO] button, or pushing the [FUNCTION 2] knob (as a default) shows this window.



Click Setup Memory A/B/C/D	Four different click settings can be stored to the memory. Tapping the memory button recalls the click settings.
STORE	Stores current click settings to the memory. Tap [STORE], and select the memory. Tap [Cancel] to cancel the storing.
Tempo Slider	Adjusts the tempo (BPM) in 1.0 steps. * The tempo slider range is narrower than the actual tempo range can be set.
Tempo	Adjusts the tempo (BPM) in 0.1 steps.
Beat (Time Signature)	Configures number of beat in a measure.
Note	Configures the note type of the click.
Sound	Configures the click sound.
Level	Adjusts the click level.

\* The [TEMPO] button is changed to the [HOME] button in screens other than the home screen.

## Menu

The menu window provides entrances to other screens.

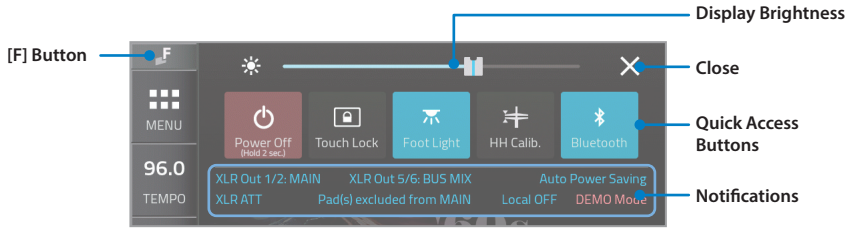
Tapping the [MENU] button shows this window.

For the detail, see p. 24.



## Power Menu

The power menu window provides the quick access buttons and the notifications. Tapping the [F] button, or pushing the [VALUE] knob shows this window.



### Quick Access Buttons

Power Off	--> p. 14
Display Brightness	Adjusts the display brightness.
Touch Lock	When activated, the touch screen is disabled. To unlock, push any knob. --> p. 23
Foot Light	Turns the foot light on/off.
HH Calib.	Goes to hi-hat calibration screen. --> p. 49
Bluetooth	Goes to Bluetooth setting screen. --> p. 52 Button is lit when the Bluetooth is on.

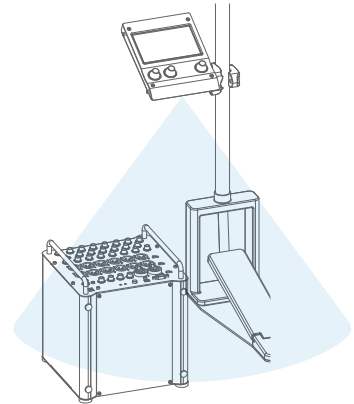
### Using the Foot Light

The foot light illuminates the area around the connectors on the base unit, and helps connection work on a dark stage.

- The foot light dimmer can be adjusted. --> p. 54
- Short-pushing the [SHUTDOWN] button on the base unit can also turn the foot light on/off.

#### CAUTION

- \* When the foot light is turned on, it emits a strong light, so please be careful not to look directly into it or point it at people.



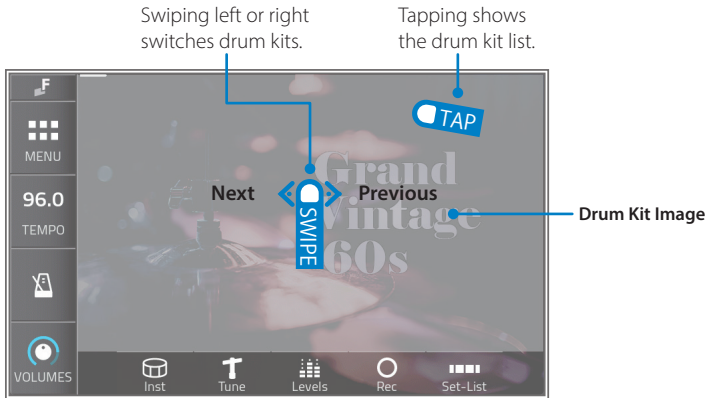
### Notifications

In order to avoid setting mistakes in advance, the notification area lights up to notify you when settings deviate from the recommended settings.

XLR Out 1/2 MAIN	XLR Out 1/2 currently outputs the Main L/R audio, instead of Bus 1/2.
XLR Out 5/6 BUS MIX	XLR Out 5/6 currently outputs the Bus Mix L/R audio, instead of Bus 5/6.
XLR ATT	The attenuators are being applied for all XLR outputs.
Pad(s) excluded from MAIN	One or more pads are NOT routed to Main L/R.
Auto Power Saving	The auto power off function is enabled.
Local OFF	The MIDI local control is currently turned OFF. When OFF, hitting pads won't play any sounds, and will only send MIDI messages.
DEMO Mode	The demo mode is currently turned ON. Normally this should be OFF.

- Tapping the indicator lit leads you to the screen to change the setting.

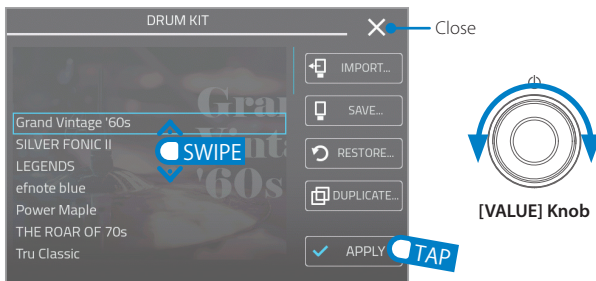
## ■ Switching Drum Kits



- After switching drum kits, it takes a few seconds to load it.
- The kit switching operation can be changed to tap instead of swipe. --> p. 54

### Drum Kit List

Tapping the drum kit image shows the drum kit list.



IMPORT...	Imports a drum kit from the USB flash drive.	--> p. 22.
SAVE...	Saves the selected drum kit on the list to the USB flash drive.	* Available only when a USB flash drive is connected.
RESTORE...	Restores the selected preset drum kit to the factory state.	
DELETE...	Deletes the selected drum kit. * Preset drum kits cannot be deleted.	
DUPLICATE...	Duplicates the selected drum kit on the list. Enter a new drum kit name, and tap [OK].	

- To create a new drum kit, duplicate any drum kit.
- Preset drum kits can be edited, but cannot be renamed or deleted
- Duplicated drum kits (user drum kits) appear after the preset drum kits in the drum kit list, sorted by drum kit name.

### Creating a New Drum Kit

Duplicate any drum kit on the drum kit list. See above.

## ■ Home Widgets

The home widgets are easy and helpful tools displayed in the home screen.



### Inst

Changes the Inst of the currently selected pad by swipe it, or tap it to show the Inst selector.

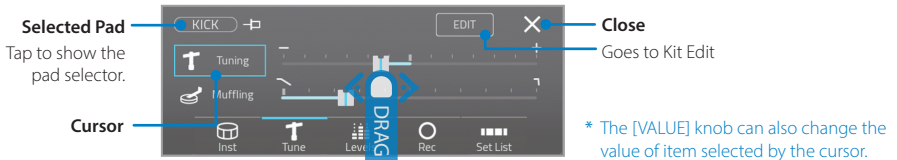
\* Changes are saved automatically.



### Tune

Quickly modifies the tuning (pitch) and muffling (sustain) of the Inst by dragging the sliders.

\* Changes are saved automatically.



### Levels

Adjusts each pad level. Tap to select a pad.

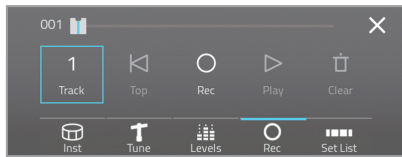
\* Changes are saved automatically.





## Rec

Records your drum performance.



- 1 Select a track to record.
- 2 Tap the [Rec].
- 3 Make sure the [Auto Start] is ON.
  - \* To start recording manually, tap the [Rec] again.
- 4 Start your performance to record.
- 5 Tap the [Stop] to stop the recording.
- 6 Tap the [Play] to listen.

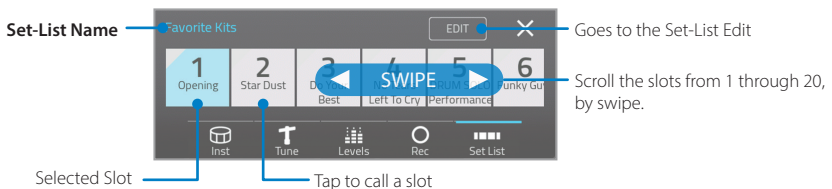
- Drag the slider to move the playing location.
- To delete the recording data on the track, tap the [Clear].
- Recording data are saved automatically.

- \* Recording will overwrite the existing data on the track.
- \* Even if the recording widget is closed, the recording will continue.
- \* This recorder is MIDI basis, and playing tempo will vary depends on the click tempo set at the moment.
- \* Tempo and time signature settings are not recorded.
- \* Any other audio/MIDI sources are not recorded.
- \* The playback will not send any MIDI data.

## Set-List

Calls a slot of the set-list.

The array-style slot buttons allow you to select a slot not only sequentially, but also directly any slot you prefer. It is also handy to use as your favorite kit list.



- 1 Select a set-list, by tap the Set-List name.
- 2 Tap any of slot to recall the registered drum kit or tempo setting.

- \* To register a drum kit to a slot, or manage a set-list, go to the Set-List Edit screen.
- \* The click tempo can also be registered to each slot.

## ■ Import/Save a Drum Kit from/to USB Flash Drive



1 Insert a USB flash drive to the USB flash port. --> p. 13

\* In case the connected USB flash drive is not recognized, formatting it may solve the problem. --> p. 57

2 At the Home screen, tap the drum kit image to open the drum kit list.

3 Select a drum kit by using [VALUE] knob.

4 Tap [IMPORT...] or [SAVE...].

Select a file to import, or enter file name to save.

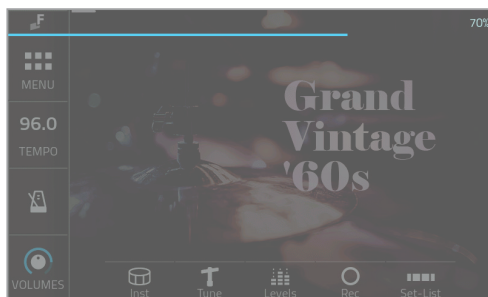
\* When importing a drum kit, if the same name drum kit exists on the sound module, a message will pop up.  
Tap [OK] to replace, or tap [Cancel] to rename it.

## Progress Bar

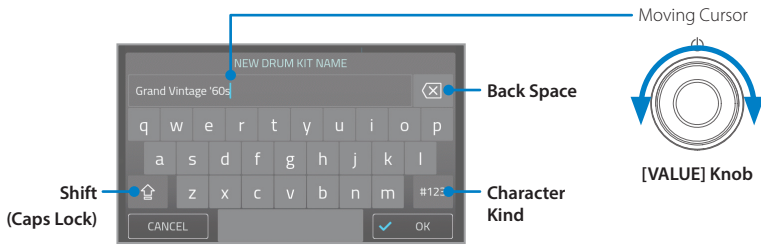
Progress bar as shown below is displayed while processing, loading or saving data or files.

\* Do not insert or remove a USB flash drive while the progress bar is displayed.

\* While the progress bar is displayed, playability may deteriorate.



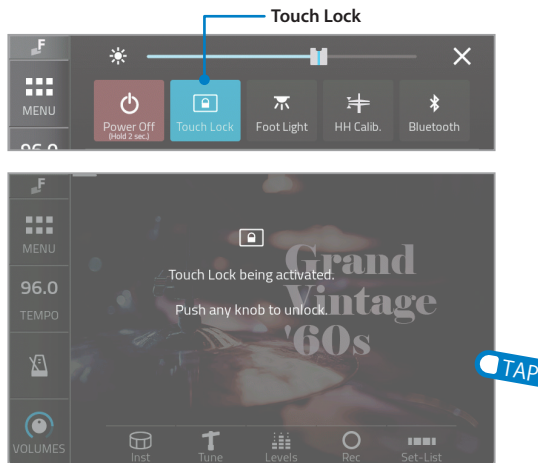
## ■ Name Entry (Keyboard)



- \* Particular names such as drum kit names or file names must be unique and contain at least one letter.
- \* Each name has a length limit, and cannot be entered letters exceed the limit.
- \* The following characters cannot be used in file names.  
 \ / : \* ? " < > |

## ■ Touch Lock

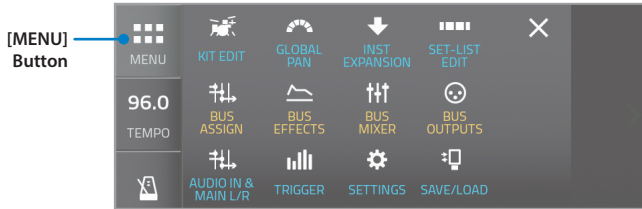
When the Touch Lock is activated, the touch screen is disabled. This feature is handy to avoid touching the display accidentally. To unlock, push any knob.



- \* Rotating the [FUNCTION 1/2] knobs still works even when the Touch Lock is activated.
- \* Rotating the [VALUE] knob does not work when the Touch Lock is activated.
- \* The Touch Lock feature can be activated on any screen.

# MENU

The menu window provides entrances to other screens. Tapping the [MENU] button shows this window.

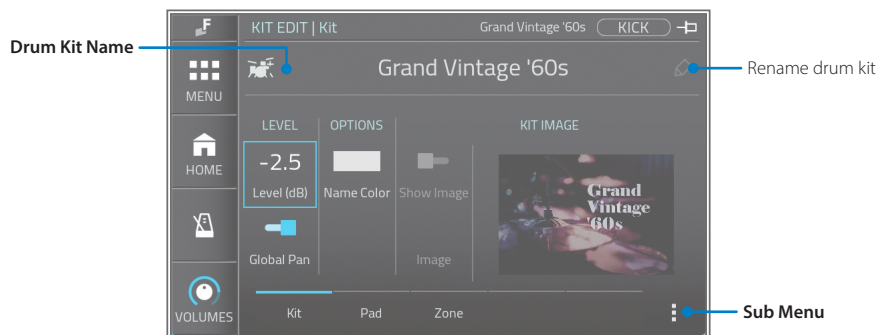


KIT EDIT	Edits drum kit, changes instrument on each pad.	p. 25
GLOBAL PAN	Modifies pan settings used for all drum kits in common.	p. 30
INST EXPANSION	Manages the Inst expansion installed to the sound module.	p. 31
SET-LIST EDIT	Edits the set-lists.	p. 33
BUS ASSIGN	Configures the output bus assignments for the pads, click, and audio inputs.	p. 35
BUS EFFECTS	Overviews and modifies the HPF/EQ and compressor on each bus.	p. 36
BUS MIXER	Adjusts each bus level and pan for the Bus Mix L/R audio.	p. 39
BUS OUTPUTS	Configures XLR bus outputs and USB audio output settings.	p. 40
AUDIO IN & MAIN L/R	Configures audio ins and the Main L/R settings.	p. 44
TRIGGER	Configures the trigger settings.	p. 47
SETTINGS	Sets up a Bluetooth connection, configures global settings.	p. 52
SAVE/LOAD	Saves/loads data to/from a USB flash drive.	p. 57

## KIT EDIT

### ■ Kit

On this screen, you can configure parameters belonging to the drum kit, such as drum kit name, or drum kit level.



1 Select a drum kit you want to edit at the home screen, before entering to this screen.

### Parameters

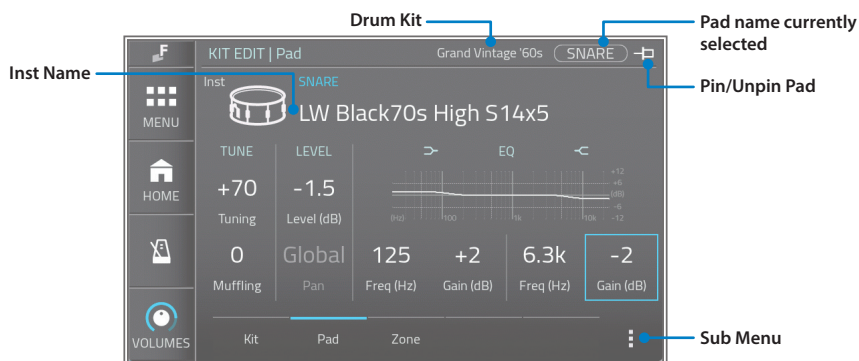
Drum Kit Name	Displays the drum kit name. Tap the pencil icon to rename. * Unique kit name is required.
Level	Entire level of the drum kit.
Global Pan	When on, pan settings on the global pan screen is activated. When off, pan settings on each drum kit are available on the Pad tab.
Name Color	Changes color for the drum kit name on the home screen and the Drum Kit List. * For the preset drum kit, drum kit name on the home screen is not changed because it is a part of the kit image.
Show Image	Determines if the kit image is shown or not, for user drum kits. * For the preset drum kits, this switch is disabled.
Image	Selects a kit image for user drum kit.

### Sub Menu

SAVE...	Saves this drum kit to the USB flash drive. Enter a file name and tap [OK]. --> p. 23 * The saved file is located at: USB flash drive/EFNOTE/EFD-PRO/Kit/xxx.efdpKit
RESTORE...	Restores this preset drum kit to the factory state. * User drum kit cannot be restored.
DELETE...	Deletes this user drum kit. * Preset drum kit cannot be deleted.
DUPLICATE...	Duplicates this drum kit. Enter the new drum kit name, and tap [OK]. --> p. 23

## ■ Pad

On this screen, you can configure parameters that belong to each pad of the currently selected drum kit, such as instrument, pitch, or level.



1 Select a pad you want to edit, by hitting it or tapping the pad name displayed.

\* When pinned, the selected pad is not changed by hitting a pad.

2 Tap a parameter, and adjust it with [VALUE] knob.

### Parameters

Inst Name	Displays Inst (instrument) name currently assigned to the pad. Tapping it shows the Inst list to change Inst.	
Tuning	Adjusts tuning (pitch) of the Inst on the pad.	
Muffling	Adjusts muffling (decay) of the Inst on the pad.	
Level	Adjusts the level of the pad. * Clipping may occur when exceeding 0dB.	
Pan	Configures the pan position of the pad. * When the global pan is enabled, this cannot be changed.	
EQ Low	Freq.	Cut-off frequency of the low shelf EQ.
	Gain	Gain setting for the low shelf EQ.
EQ High	Freq.	Cut-off frequency of the high shelf EQ.
	Gain	Gain setting for the high shelf EQ.

\* The graph shown in the screen is an image of the settings and actual effects may differ.

### Sub Menu

COPY...	Copies all settings on this pad including all zones to the clipboard.	* Copy and paste between drum pad and cymbal pad is not supported.
PASTE...	Pastes the clipboard contents to this pad. * Settings on this pad will be overwritten.	

## Inst List

To listen to other Inst, select it by swiping or turning the [VALUE] knob. The selected Inst can be monitored immediately. Tapping the [X] to revert the change and close the list.

To change the Inst group, tap the Inst group button.

\* While opening the list, the currently selected pad is fixed even if other pads are hit.

Inst Group



## About the Inst, Tone and Zone

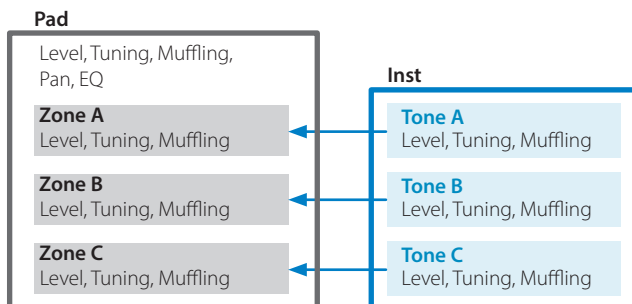
Each pad has some zones as shown in the table on the right.

A sound called "Inst" has some Tones corresponding to each Zone, and has some parameters that work for all Zones. With this structure, just changing Inst can configure each Tone and its parameters at once.

Parameters in the pad screen apply to all Zones simultaneously, while parameters in the Zone screen works only for selected Zone.

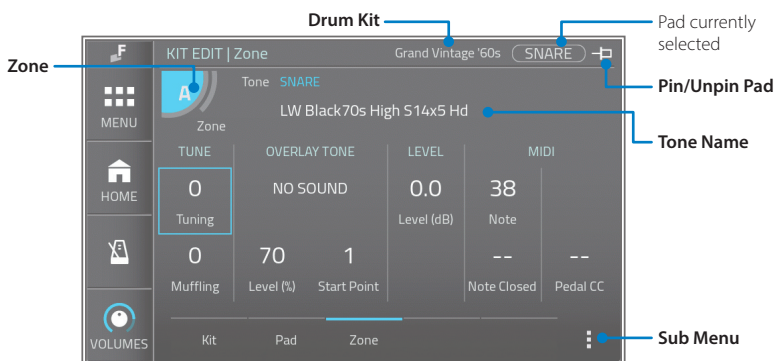
Zone	Pad				
	Kick	Snare	Toms	Crashes/ Ride	Hi-Hat
<b>A</b>	Head	Head	Head		Bow
<b>B</b>	–	Rim	Rim		Edge
<b>C</b>	–	Side-Rim	–		Cup
<b>Pedal</b>	–	–	–	–	Pedal

\* The hi-hat Inst is an exception and has 4 tones.



## Zone

On this screen, you can configure parameters that belong to each Zone of the currently selected pad, such as Tone, Overlay Tone, level, or MIDI note number.



- 1 Select a pad you want to edit, by hitting it or tap the pad currently selected.
- 2 Select a Zone you want to change, by tap [Zone].
- 3 Select a parameter you want to change, by tap it. And adjust it with [VALUE] knob.

### Parameters

Zone	Selects a Zone of pad to edit. * The correspondence between Zone A/B/C and the actual Zone of each pad is displayed as an icon on this button.		
Tone	Displays the Tone name currently assigned to the Zone. Tapping it shows the Tone list to change Tone.		*1
Tuning	Adjusts tuning (pitch) of the Tone on the Zone.		*1
Muffling	Adjusts muffling (decay) of the Tone on the Zone.		*1
Overlay Tone	Tone	Displays the Overlay Tone name currently selected. The Overlay Tone will be produced when this Zone is hit, in addition to the Tone assigned. Tapping it shows the Overlay Tone list to change.	
	Level (%)	Adjusts the level of the Overlay Tone.	
	Start Point	The Overlay Tone will be applied only when struck harder than this point.	
Level	Adjusts the level of the Zone.		*1
MIDI	Note	Note number for the current Zone	
	Note Closed	Note number for the hi-hat closed state on the current Zone	
	Pedal CC	Control change number for the hi-hat pedal	

\*1 These parameters will be reverted to the initial values, when Inst has been changed on the pad screen.

\* If the note numbers or the control change numbers are changed, MIDI data previously recorded cannot be played back correctly.

### Sub Menu

COPY...	Copies all settings on this Zone to the clipboard.	* Copy and paste between drum pad and cymbal pad is not supported.
PASTE...	Pastes the clipboard contents to this Zone. * Settings on this Zone will be overwritten.	



## Tone List

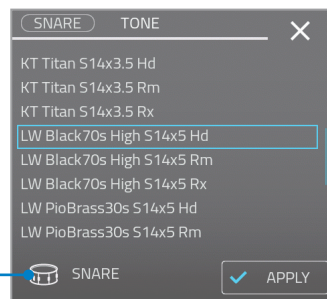
To listen to other Tones, select it by swiping or turning the [VALUE] knob. The selected Tone can be monitored immediately.

Tapping the [X] to revert the change and close the list.

To change the Tone group, tap the Tone group button.

\* While opening the list, the currently selected pad and Zone are fixed even if other pads are hit.

Tone Group



## Acronyms appeared in the Tone List

Hd	Head
Rm	Rim-Shot or Rim
Rx	Cross-Sticks (Side Stick)
Bw	Bow
Eg	Edge
Cp	Cup

## Default MIDI Note Numbers

Pad	Note#	
Kick	36	
Snare	Head	38
	Rim	40
	Side-rim	37
Tom 1	Head	31
	Rim	32
Tom 2	Head	48
	Rim	50
Tom 3	Head	45
	Rim	47
F.Tom 4	Head	43
	Rim	58
F.Tom 5	Head	41
	Rim	39

Pad	Note#	
HH Open	Bow	46*1
	Edge	26*1
	Cup	16*1
	Pedal	44
	Splash	(CC#4=0)
HH Closed	Bow	42*1
	Edge	22*1
	Cup	12*1
	Pedal Close	44 (CC#4=127)
Ride	Bow	51
	Edge	59
	Cup	53

Pad	Note#	
Crash 1	Bow	49
	Edge	55
	Cup	54
Crash 2	Bow	57
	Edge	52
	Cup	56
Crash 3	Bow	61
	Edge	62
	Cup	63
Crash 4/ FX	Bow	64
	Edge	65
	Cup	66
Crash 5/ Splash	Bow	27
	Edge	28
	Cup	60
Crash 6/ China	Bow	29
	Edge	30
	Cup	24

\*1 The hi-hat pedal sends MIDI control change #4 with a value in the range of 0 (open) to 127 (tight closed), before the corresponding note message.

- A cymbal choke technique sends the polyphonic after touch (key after touch) message.
- EFNOTE PRO does not send/receive any Program Change messages.

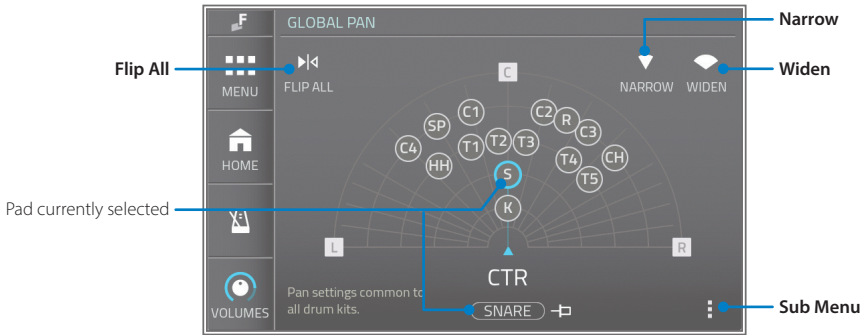
\* In case the same note numbers are configured for two or more pads, only one pad will be played when receiving the note number.

## GLOBAL PAN

Global pan allows you to change each pad's pan position for all drum kits at once.

This is useful when you change the placement of the pads.

On this screen, you can configure the global pan for each pad.



### NOTE

\* The pan settings on this screen work for all drum kits with the global pan switch enabled.  
About the global pan switch on each drum kit, see p. 25.

- 1 Select a pad which you want to configure, by tap it or hitting the pad.
- 2 Change the pan position for the pad with [VALUE] knob.

### Parameters

Pan	Configures position of each pad in the stereo image.	
Flip All	Inverts the pan settings for all pads left and right.	
Narrow	Narrows each pan setting.	* A single tap may not be effective. Tap several times.
Widen	Widens each pan setting.	

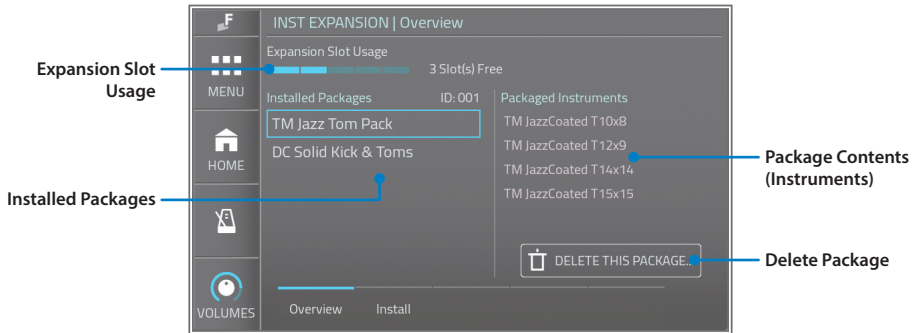
### Sub Menu

LOAD...	Loads a global pan setting from the USB drive and overwrites the current global pan setting. Choose a file and tap [LOAD].
SAVE...	Saves the global pan setting to the USB flash drive. Enter a file name and tap [OK]. --> p. 23 * The saved file is located at: USB flash drive/EFNOTE/EFD-PRO/Sys/xxx.efdpGpn

## INST EXPANSION

### ■ Overview

Inst expansion feature enables you to install additional instruments provided through the EFNNOTE web. This screen gives you an overview of the Inst expansion slots.



EFNOTE PRO can be installed additional instrument packages up to 5.

One package contains one or more instruments and subsidiary tones in it, and these can be assigned to any of drum pads (kick, snare, and tom pads only).

Installed instruments will be shown after the preset instruments on the Inst list.

- \* The Inst expansion feature does not support to add hi-hat or cymbal instruments.
- \* For installing the Inst expansion package, see p. 32.
- \* Inst expansion package and its contents cannot be included in any backup file.

### Parameters

Expansion Slot Usage	Displays the expansion slot status.
Installed Packages	Displays installed packages. To show its contents, tap it.
Packaged Instruments	Displays instruments in the selected package.

### Deleting the Inst Expansion Package

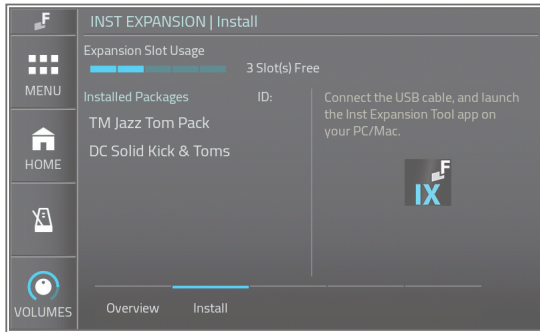
- 1 Select an Inst expansion package that you want to delete.
- 2 Tap [DELETE THIS PACKAGE...], and tap [OK].

### NOTE

- \* If you delete an Inst expansion package, pads using the expanded Inst will be assigned "No Sound".
- \* Even if you install the Inst expansion package again, those pads will still be "No Sound".  
To restore the pads, save the drum kit containing those pads to a USB flash drive before removing the inst expansion package. Loading the drum kit data after re-installing the inst expansion package will restore the drum kit and pads correctly.

## ■ Install

This section describes the procedure for installing the Inst expansion package. The Inst expansion package will be released on the EFNOTE web (p. 5).



To install the Inst expansion package, following items are required. See the web (p. 5) for the detail.

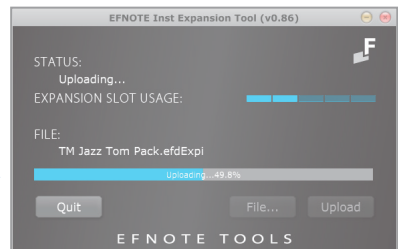
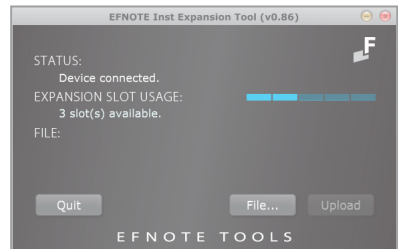
- Mac or Windows PC, and a USB cable
- EFNOTE Inst Expansion Tool app (Can be downloaded from the web)

### NOTE

This procedure takes several minutes to tens of minutes to complete.

- 1 Connect EFNOTE PRO to your Mac/PC with a USB cable.
- 2 While keep on this screen, start the EFNOTE Inst Expansion Tool app. The app shows the slot availability.
  - \* If no slot is available, delete some packages before starting the app.
- 3 Click [File...] to select an Inst expansion package file (.efdExpi).
- 4 Click [Upload] to install. It takes several minutes to upload.
  - \* Do not quit the app while uploading.
- 5 If still there is a slot available, you can continue to upload another file.
- 6 Quit the app. And restart EFNOTE PRO by unplugging the power. It takes several minutes for EFNOTE PRO to start.

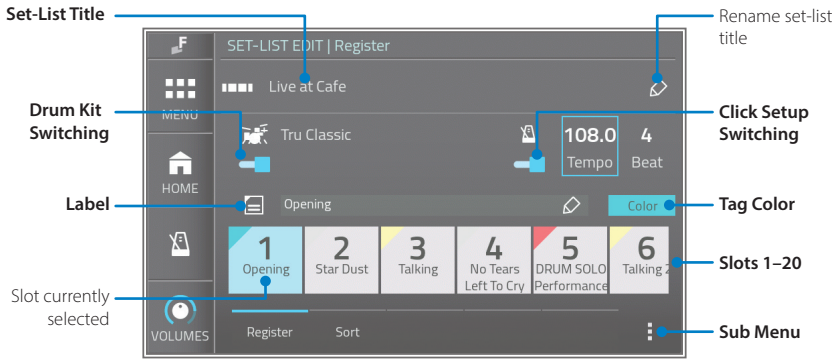
- \* The app connection is available only when you are on this screen.
- \* Once the app is connected, the touch screen, knobs, and SHUTDOWN button on the base unit will no longer work.
- \* Ef-Note Inc. does not guarantee the delivery of Inst expansion packages.



## SET-LIST EDIT

### Register

On this screen, you can create and modify set-lists.



- 1 Select a set-list you want to modify, by tapping the set-list title.
- 2 Select a slot which you want to modify, by tapping one of slots 1–20.
- 3 To register a drum kit to the slot, enable the drum kit switching, and select a drum kit.  
To register a click setup to the slot, enable the click setup switching, and configure the tempo and beat.  
\* The selected drum kit name is automatically entered into the label if the label is empty.
- 4 Edit the label and select the tag color as needed.

#### Parameters

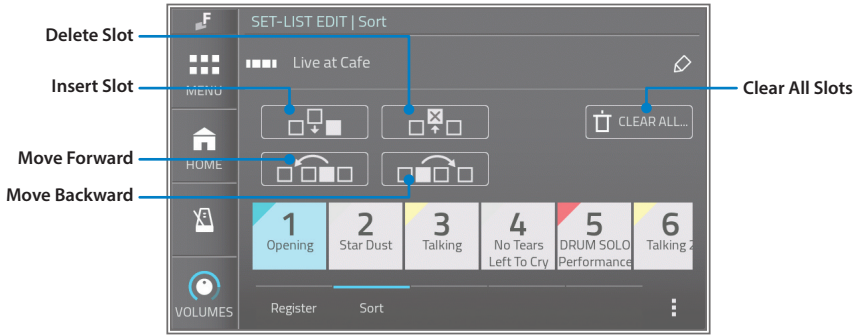
Set-List Title	Set-list title currently selected. Tap it to change the set-list. Tap the pencil icon to rename.
Drum Kit Switching	To register a drum kit to the slot, turn it on.
Drum Kit Name	Drum kit name registered to the slot. Tap it to change the drum kit.
Click Setup Switching	To register a click setup to the slot, turn it on.
Tempo/Beat	Tempo and beat settings registered to the slot.
Label	Label registered to the slot. Tap the pencil icon to edit.
Tag Color	Tag color registered to the slot. Tap it to change the color.

#### Sub Menu

LOAD...	Loads a set-list from the USB drive and overwrites the currently selected set-list. Choose a file and tap [LOAD]. * The saved file is located at: USB flash drive/EFNOTE/EFD-PRO/Setlist/ xxx.efdpStl
SAVE...	Saves the currently selected set-list to the USB flash drive. Enter file name and tap [OK]. --> p. 23
DUPLICATE...	Duplicates the currently selected set-list. Choose a destination and tap [SELECT]. The destination will be overwritten.

## Sort

On this screen, you can modify the slot order of set-lists.



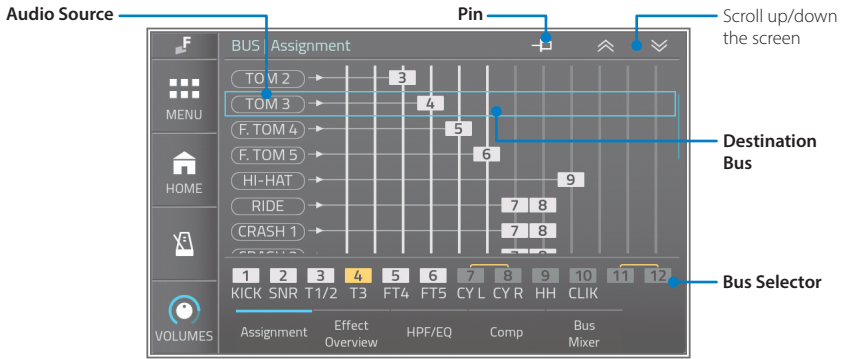
### Parameters

Delete Slot	Deletes the currently selected slot.
Insert Slot	Inserts a new slot before the slot currently selected.
Move Slot Forward	Moves the selected slot forward.
Move Slot Backward	Moves the selected slot backward.
Clear All Slots	Clears contents on all slots of the set-list currently selected.

# BUS ASSIGN

## ■ Assignment

On this screen, you can define bus routing, which audio source is sent to which bus.

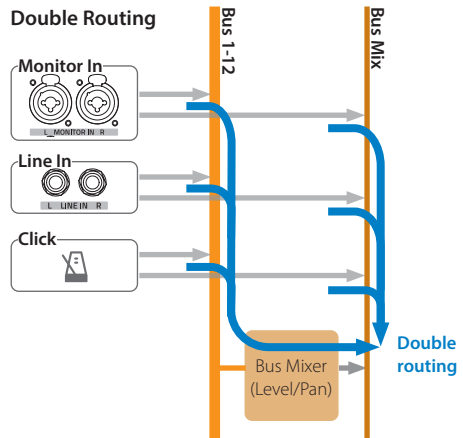


### Parameters

Source	Destination Bus	
Kick, Snare, Tom 1–5	Off, Bus 1–6	
Hi-Hat, Ride, Crash 1–6	Off, Bus 7–12	Hitting a pad can select it as a source.
Click		* In case any of these sources is routed to both the bus and the Bus Mix, be aware that double routing can occur through the Bus Mixer. If this happens, lower the corresponding fader down on the Bus Mixer. See below.
Monitor-In	Off, Bus 1–12	
Line-In		

- When pinned, hitting pad will not change the selected audio source to the corresponding pad.
- Press and hold the bus selector to change each bus name.
- When stereo audio is sent to a single bus such as Bus 1, left and right signals are merged and sent to the bus. When stereo audio is sent to two buses such as Bus 1+2, the left channel is sent to Bus1, and the right channel is sent to Bus 2.

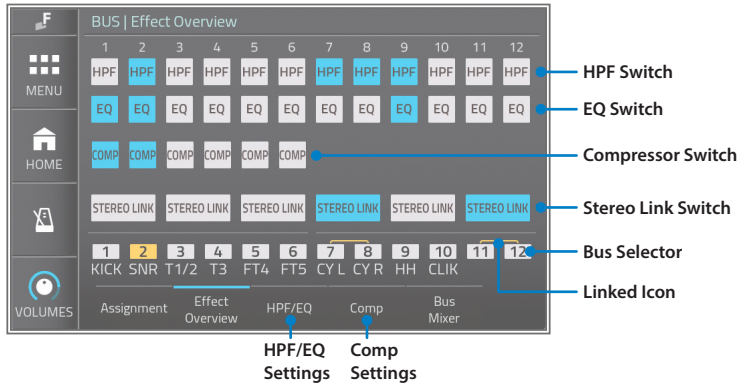
\* One audio source cannot be sent to multiple buses.



## BUS EFFECTS

### ■ Effect Overview

This screen provides an overview of the bus effects (HPF/EQ/Compressor), and the stereo link status on each bus. You can switch each on/off by tapping it.



#### Parameters

HPF	Turn the HPF switch on each bus on/off.	* These switches can also be changed on the "HPF/EQ" or "Comp" tab.
EQ	Turn the EQ switch on each bus on/off.	
COMP	Turn the compressor switch on each bus on/off.	
STEREO LINK	Link adjacent buses as a stereo pair. When on, the linked icon is shown on the corresponding bus selector.	

- To adjust detail parameters of the HPF, EQ, and compressor, tap the "HPF/EQ" or "Comp" tab.
- Press and hold the bus selector to change each bus name.

#### Stereo Link

The Stereo Link feature allows you to link adjacent buses to synchronize left and right channel settings as a stereo pair.

- When the Stereo-Link is enabled, settings are synced for both paired buses, and this synchronizes the operation of the compressors.
- When turning the link on, the pair of pan settings on the Bus Mixer is set to L and R.

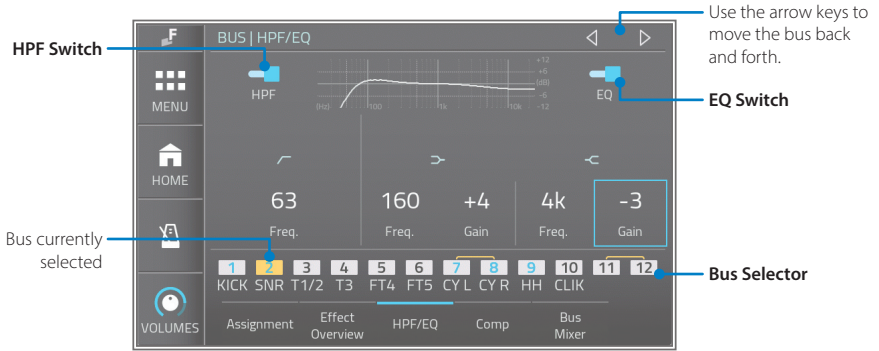


■ **HPF/EQ**

EFNOTE PRO has HPFs and EQs on each Bus 1–12.

Even if your mixer channels do not have EQs, you can compensate for the drum sound by using them to match your PA system or the house’s sound field characteristics.

On this screen, you can control the bus HPF and EQ.



1 Select a bus that you want to adjust, by tapping the Bus Selector, or using the arrow keys. The selected bus is shown in yellow.

2 Turn the HPF or EQ on, and adjust the parameters below. When either the HPF or EQ is on, the bus number is shown in blue.

**Parameters**

HPF	Switch	To activate the high pass filter, turn this on.
	Freq.	Cut-off frequency of the HPF.
EQ Switch	To activate the EQ, turn this on.	
EQ Low	Freq.	Cut-off frequency of the low shelf EQ.
	Gain	Gain setting for the low shelf EQ.
EQ High	Freq.	Cut-off frequency of the high shelf EQ.
	Gain	Gain setting for the high shelf EQ.

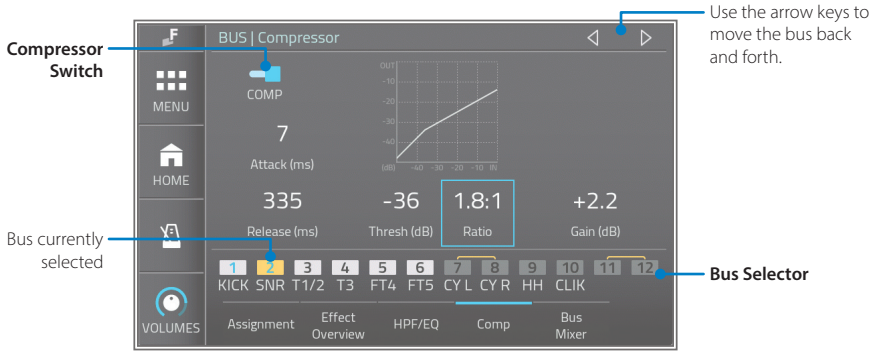
- When the Stereo-Link is enabled, settings are synced for both paired buses.
- Press and hold the bus selector to change each bus name.

\* The graph shown on the screen is an image of the settings and actual effects may differ.

## ■ Compressor

EFNOTE PRO has built-in compressors tuned specially for the drum sound on each Bus 1-6. Even if your mixer channels do not have compressors, you can tweak the drum sound using them. On this screen, you can control the bus compressor.

\* The compressor is not available for Bus 7-12.



1 Select a bus which you want to adjust, by tapping the Bus Selector, or using the arrow keys. The selected bus is shown in yellow.

2 Turn the compressor on, and adjust the parameters below. When the compressor is on, the bus number is shown in blue.

### Parameters

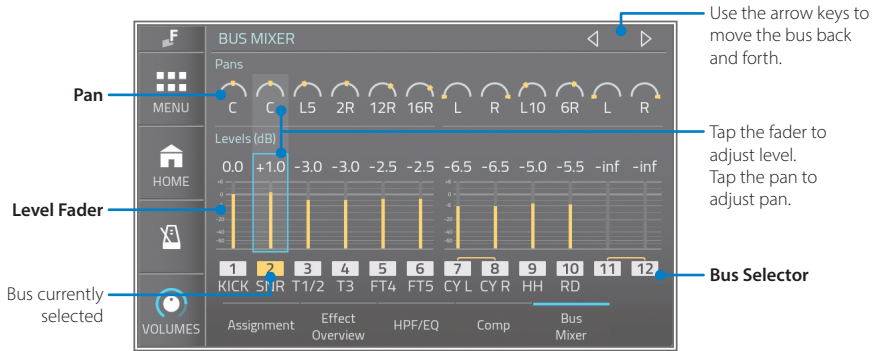
COMP Switch	To activate the compressor, turn this on.
Attack (ms)	Attack time With 0, it works as approx 0.1 ms internally.
Release (ms)	Release time
Thresh (dB)	Threshold
Ratio	Compression ratio
Gain (dB)	Make-up gain

- When the Stereo-Link is enabled, settings are synced for both paired buses.
- When stereo-linked, the compressor works as a stereo compressor that acts based on one key signal which was merged with left and right channels.
- Press and hold the bus selector to change each bus name.

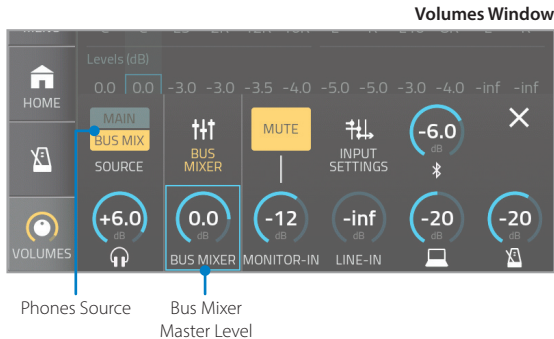
\* The graph shown on the screen is an image of the settings and actual effects may differ.

## BUS MIXER

The Bus Mixer is for monitoring the audio of 12 buses with headphones. This allows you to check the effects of the EQ and compressor, as well as the sound sent to FOH, through your headphones. Furthermore, the faders and pans of this Bus Mixer do not affect the bus output, so you can use it to monitor the sound of each drum with a different balance from FOH.



- 1 To monitor the Bus Mixer output with your headphones, change the phones source to BUS MIX on the volumes window.



- 2 Select a fader or pan on a bus which you want to adjust, by tapping it. Selected fader or pan is shown with the blue cursor.

- \* Tapping Bus Selector or using arrow keys allows you to change bus. The selected bus is shown in yellow.
- \* Press and hold the bus selector to change each bus name.

- 3 Adjust the level or pan by turning the [VALUE] knob.

\* Clipping may occur when the level fader exceeds 0dB.

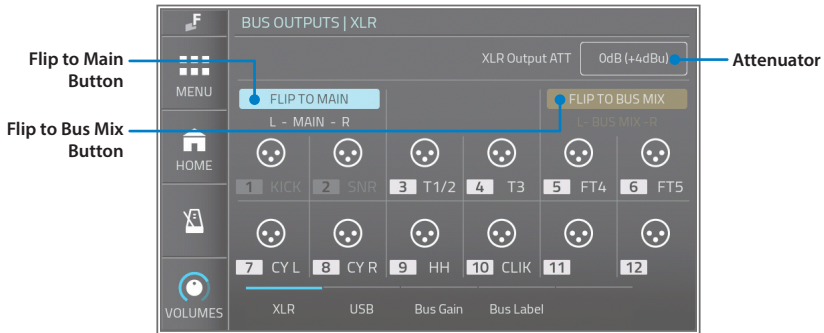
- When the stereo-link is enabled, changing a level on one bus are reflected to the other bus.
- When turning the stereo link on, the pair of pan settings is set to L and R.

For use cases with the Bus Mixer, see p. 62.

# BUS OUTPUTS

## ■ XLR

On this screen, you can set up the XLR outputs settings.

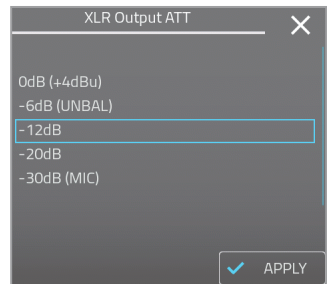


### Parameters

Flip to Main	When enabled, the XLR 1/2 connectors output Main L/R audio, instead of Bus 1/2.	* Changes are immediately applied.
Flip to Bus Mix	When enabled, the XLR 5/6 connectors output Bus Mix L/R audio, instead of Bus 5/6.	
XLR Output ATT	The current attenuation setting is displayed on this button. When tap it, attenuation level options are displayed. See below.	

### XLR Output ATT

Set the attenuator to match the input level range of the connected mixer.



### HINT

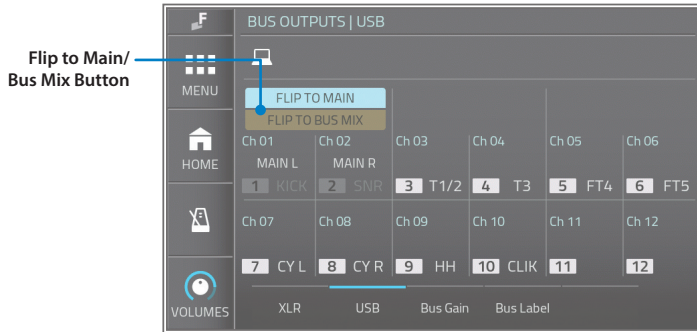
- When connecting to line level (-10dBV) inputs with unbalanced cables, setting to “-6dB” is recommended. This also depends on the maximum level that your mixer can be input.
- When connecting to microphone inputs, set it to “-20dB” or “-30dB”.
- See the level diagram for detail. --> p. 71

\* The attenuator setting works for all XLR 1–12 outputs.

\* About the input specification of your mixer, refer to the manual of the mixer.

## ■ USB

On this screen, you can change the USB Audio output settings.



### Parameters

#### Flip to Main/Bus Mix

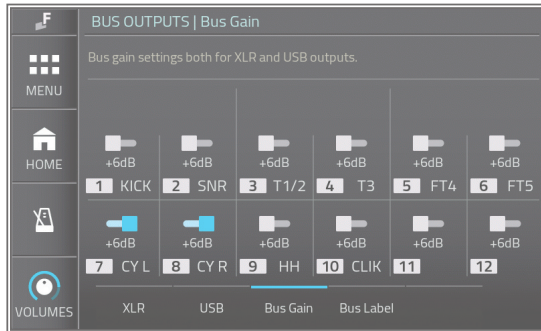
When flipped to Main, the USB audio ch1/2 output Main L/R audio, instead of Bus 1/2.

When flipped to Bus Mix, the USB audio ch1/2 output Bus Mix L/R audio, instead of Bus 1/2.

\* Changes are immediately applied.

## ■ Bus Gain

In case the bus output level is not enough, you can boost each bus individually by 6dB. This can improve the signal-to-noise ratio, especially when using long cables.



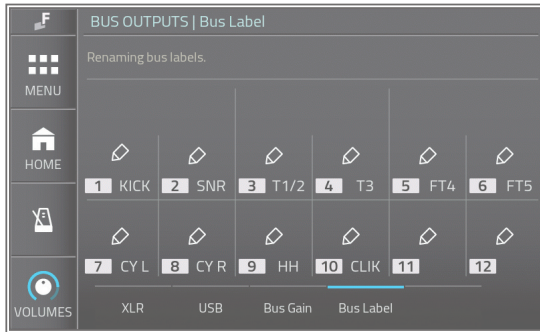
### Parameters

**+6dB Switch** When ON, the audio level on the bus is boosted by 6dB.

- \* Note that boosting the bus gain reduces its headroom by 6dB.
- \* These settings also affect the USB audio bus output.
- \* These settings also affect the Bus Mixer input level.

## ■ Bus Label

You can edit each of the bus labels on this screen.



1 Tap the pencil button to edit its bus label.

2 Edit the label, and tap [OK].

- The label length is up to 4 letters.
- About the keyboard, see p. 23.
- On the following screens, you can also change the bus label by tapping and holding the bus label. Bus Assignment, Bus Effect Overview, Bus HPF/EQ, Bus Compressor, and Bus Mixer.

# AUDIO IN & MAIN L/R

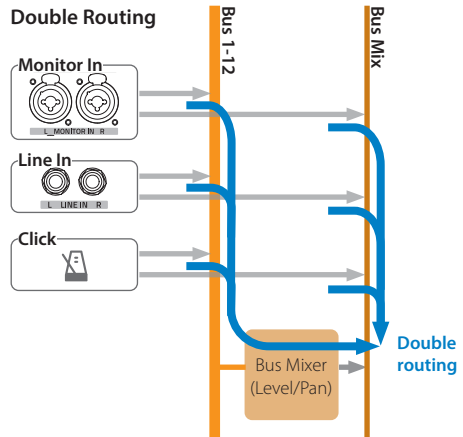
## ■ Audio Inputs

On this screen, you can configure the routing to Main L/R or Bus Mix L/R for audio inputs.



### Parameters

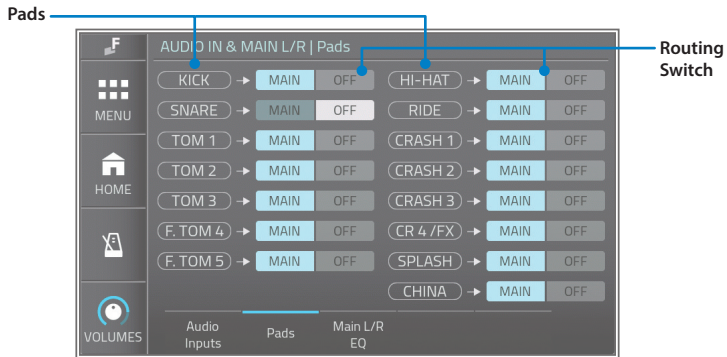
Audio Input Sources	Monitor-In	Can be routed to Main L/R, or Bus Mix L/R.
	Line-In	<b>NOTE</b>
	Click	* These input sources can also be assigned to Bus 1–12. In case routed to Bus 1-12, select MAIN or OFF to avoid double routing. See below.
	Bluetooth In	
	USB Audio In	Can be routed to Main L/R, or Bus Mix.
Routing Switch	Selects the routing destination for each audio input source.	
Channel Mode * For Monitor-In and Line-In only	Stereo	Select this when both L and R channel cables are connected, and you want to monitor it as stereo.
	Mono	Select this in the following cases. <ul style="list-style-type: none"> <li>• In case only one cable (either L or R) is connected, and you want to monitor it with both L and R channels.</li> <li>• In case you want to merge L and R channels and monitor it as monaural audio.</li> </ul>





## ■ Pads

On this screen, you can configure whether each pad is connected to Main L/R or not.



This function can be used for the following purposes.

- When you want to use the Main L/R as a main audio line and only send some pads via Bus separately.
- When you want to disconnect all pads from Main L/R and use Main L/R as an audio line for clicks, Bluetooth, or USB audio.

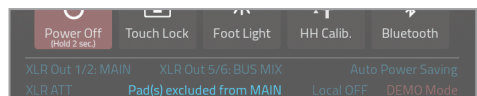
\* The sound from the pad that disconnected from Main L/R can not be heard with headphones when MAIN is selected as a source.

\* The Line-Out can be used to output Main L/R audio, but note that Line-Out and Phones Out always output the same audio signals. The XLR 1/2 can also output Main L/R audio, and this way does not impact to the headphones source --> p. 40

### NOTE

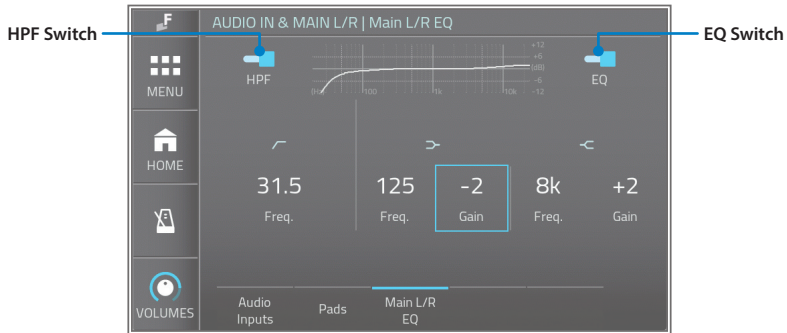
Normally, all pads should be connected to Main L/R, otherwise, you cannot listen to the sound from the pad with your headphones.

The notification indicator shows if any of the pad is disconnected from Main L/R.



## ■ Main L/R EQ

On this screen, you can configure the stereo 2-band EQ and HPF for Main L/R audio. This is helpful to compensate your headphones' sound as you prefer.



### Parameters

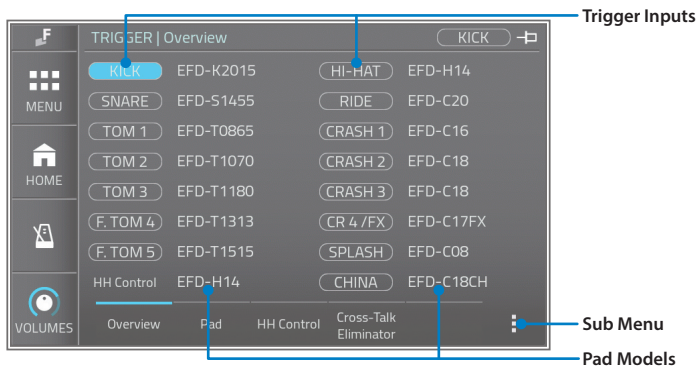
HPF	Switch	To activate the high pass filter, turn this on.
	Freq.	Cut-off frequency of the HPF.
EQ Switch	To activate the EQ, turn this on.	
EQ Low	Freq.	Cut-off frequency of the low shelf EQ.
	Gain	Gain setting for the low shelf EQ.
EQ High	Freq.	Cut-off frequency of the high shelf EQ.
	Gain	Gain setting for the high shelf EQ.

\* The graph shown on the screen is an image of the settings and actual effects may differ.

# TRIGGER

## Overview

This screen gives you an overview of the currently configured pad models for each trigger input. You can change the pad model by tapping it.



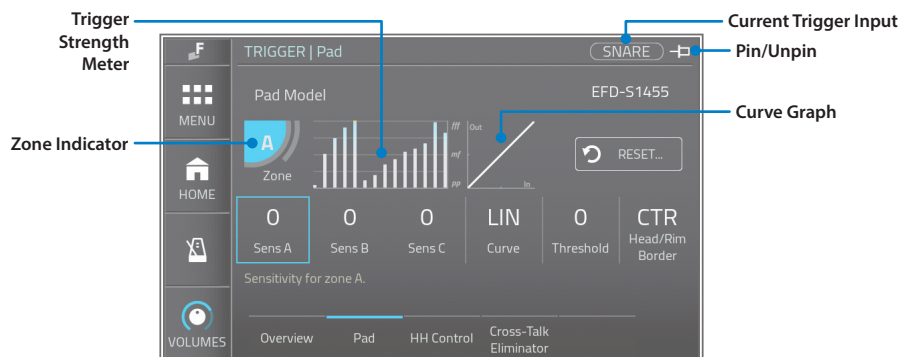
- \* Configure the pad model correctly when you add new pads to your drum kit or change pad types. This is a very important setting to let the ELISE™ sensing processor detects your performance quickly and precisely.
- \* Changing the pad model resets its trigger parameters.

### Sub Menu

SAVE...	Saves trigger settings to the USB flash drive. Enter file name and tap [OK]. --> p. 23 * The saved file is located at: USB flash drive/EFNOTE/EFD-PRO/Trigger/xxx.efdpTrig
LOAD...	Loads trigger settings from the USB drive. Choose a file and tap [LOAD].

## ■ Pad

On this screen, you can fine-adjust the trigger sensing (ELISE™) parameters for each trigger input.



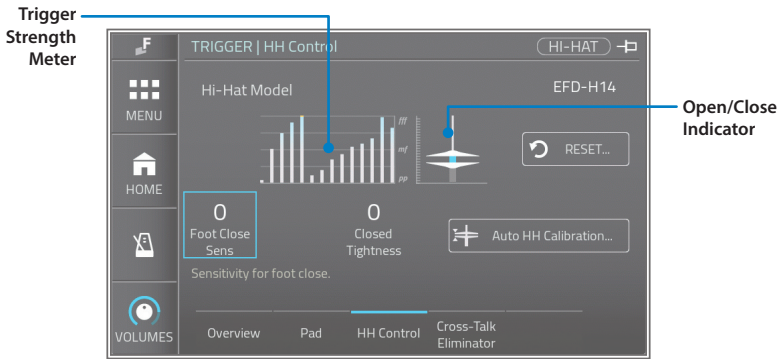
Select a trigger input by hitting a pad, or tapping the current trigger input indicator. When pinned, the current trigger input will not be changed by hitting a pad.

### Parameters

Pad Model	Shows the pad model configured for the current trigger input. Tap it to change. * <a href="#">Changing the pad model resets all parameters below.</a>
Zone Indicator	Shows the Zone detected at the last hit pad.
Sens A	Adjusts the sensitivity for each Zone.
Sens B	The Zone indicator shows which part is the Zone A, B or C of the pad. The default values are 0.
Sens C	* <a href="#">Sens B and C are available only with the particular trigger inputs and pad models.</a>
Curve	Configures trigger sensing curve for all zones in common. The selected curve is shown in the curve graph area.
Threshold	Adjusts threshold of the trigger input. Only when the trigger signal coming from the trigger input exceeds this level, the trigger is acquired. The default value is 0.
Head/Rim Border	Determines the border between the head-shot and the rim-shot. When the rim-shot sound can be heard even though the head is struck, set it toward H. The default value is CTR. * <a href="#">Available only with the particular trigger inputs and pad models.</a>
RESET...	Resets each parameter on the current pad to the initial values.

## ■ HH Control

On this screen, you can fine-adjust the hi-hat control (Tru-Motion™ optical sensor) parameters.

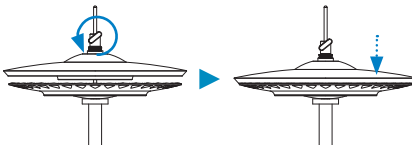


### Parameters

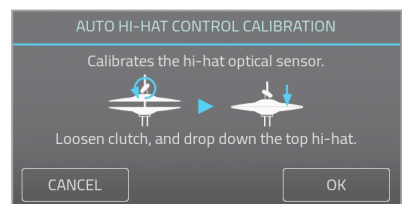
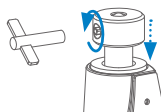
Hi-Hat Model	Shows the hi-hat controller model currently configured. Tap it to change. <i>* Changing the hi-hat model resets all parameters below.</i>
Open/Close Indicator	Shows the current hi-hat open/close position.
Foot Close Sens	Adjusts levels of the foot-close and foot-splash of the hi-hat pedal. The default value is 0.
Closed Tightness	Adjusts the hi-hat sensor manually. When the hi-hat sound is not closed enough when pressing the pedal firmly, increase the value. When the hi-hat sound does not open easily when you slightly release the pedal, decrease the value. The default value is 0.
RESET...	Resets each parameter on the current pad to the initial values.
Auto HH Calibration...	Calibrates the hi-hat optical sensor automatically. See below.

### AUTO HI-HAT PEDAL CALIBRATION

- 1 Tap the [Auto HH Calibration].
- 2 Loosen the clutch, and drop the top hi-hat cymbal.
- 3 Tap [OK] to calibrate.

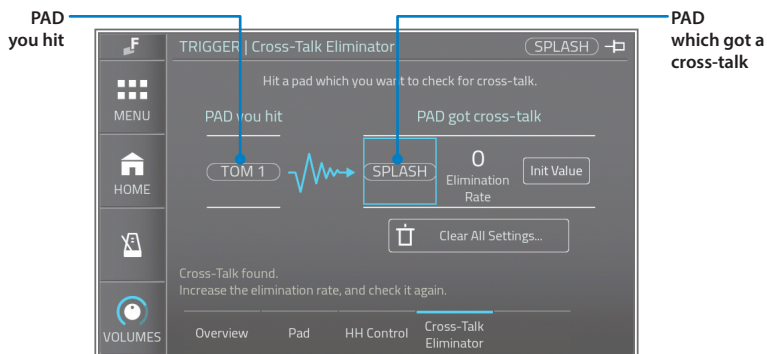


\* For the EFD-HC3 hi-hat pedal, loosen the bolt with tuning key, and drop the weight.



## ■ Cross-Talk Eliminator

On this screen, you can improve unwanted inter-pads cross-talking.



### What is cross-talk?

A cross-talk is that when you hit a pad, you also hear sounds coming from other pads, due to the vibration travel. This phenomenon can often happen when the two pads are mounted on the same stand.

### Improving a cross-talk

- 1 When you notice a cross-talk sound, strongly hit the pad just once which causes the cross-talk, on this screen.
- 2 The pad you hit is displayed in the "PAD you hit" area.  
And if the sensing processor detects any cross-talk, displays it in the "PAD got cross-talk" area.
- 3 If a cross-talk was detected, increase the Elimination Rate value.
- 4 Hit the pad once again to check if the cross-talk is disappeared or not.
- 5 Repeat steps 3 and 4 until the cross-talk is disappear.

### Checking configured values

- 1 Set a pad combination – "PAD you hit" and "PAD got cross-talk" – by turning the [VALUE] knob.  
The elimination rate configured for this pad combination is displayed.
- 2 The elimination rate can be changed by turning the [VALUE] knob.

## Parameters

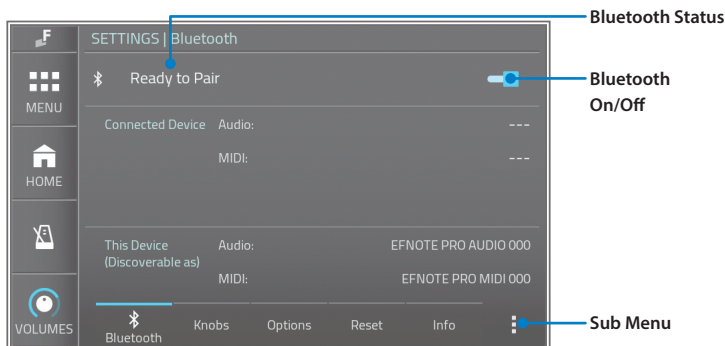
PAD you hit	Displays a pad which is the source of cross-talk.
PAD got cross-talk	Displays a pad that receives a cross-talk.
Elimination Rate	Configure a rate for eliminating a cross-talk signal. A larger value will eliminate a larger cross-talk signal. However, the larger value may also eliminate the signal caused by actual hitting in case two pads are hit simultaneously.
Init Value	Initializes elimination rate setting for the pad combination currently displayed.
Clear All Settings...	Clears all elimination rate settings and reverts to initial values.

- \* The cross-talk eliminator may not be able to eliminate all cross-talks.  
Mounting those pads on separate stands may improve it.
- \* When changing drum/cymbal pad setups, clearing all settings is recommended for better sensing performance.

## SETTINGS

### Bluetooth

On this screen, you can turn the Bluetooth on/off, and see the Bluetooth connection status. This screen can also be accessed from the Power Menu.



#### Parameters

<b>Bluetooth Status</b>	Off: Bluetooth is turned off. Ready to Pair: Bluetooth is turned on, but no device is connected. Connected: Device is connected and ready to work.
<b>Connected Device</b>	Displays connected device names, when the status is connected.
<b>This Device (Discoverable as)</b>	EFNOTE PRO can be found as these device names on your smartphone or computer.

#### Sub Menu

<b>RESET...</b>	Resets Bluetooth function and clear all paired devices. * This will take a minute to complete.
-----------------	---------------------------------------------------------------------------------------------------

#### Connection

\* About apps using Bluetooth MIDI, do not connect with this procedure, and refer to the respective apps' manual.

- 1 Make sure the status is "Ready to pair".  
If the status is "Off", tap the On/Off switch to turn on.

#### On your smartphone/computer

- 2 Turn the Bluetooth on.
- 3 Find new device discoverable as "EFNOTE PRO AUDIO xxx" (xxx is any value), and select it.
- 4 If pin code is required, enter "0000" (four zeros).
- 5 Tap [Pair].  
Make sure the status changes to "Connected", and your device name is displayed on the EFNOTE PRO.

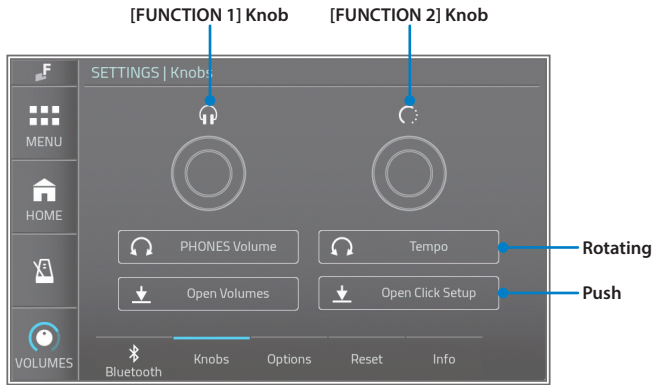
#### Disconnecting/Reconnecting

Tap [Disconnect] or [Connect] on your smartphone/computer.



■ **Knobs**

On this screen, you can assign functions of the [FUNCTION 1] knob and [FUNCTION 2] knob.



**Parameters (Rotating)**

Disable	Rotating the knob is disabled.
PHONES Volume	
Bus Mixer Volume	
MONITOR-IN Volume	Controls the corresponding volume.
LINE-IN Volume	
Bluetooth-IN Volume	
USB-IN Volume	
Click Volume	
Tempo	Adjusts tempo in 1 BPM step.
Tempo (0.1 Step)	Adjusts tempo in 0.1 BPM steps.

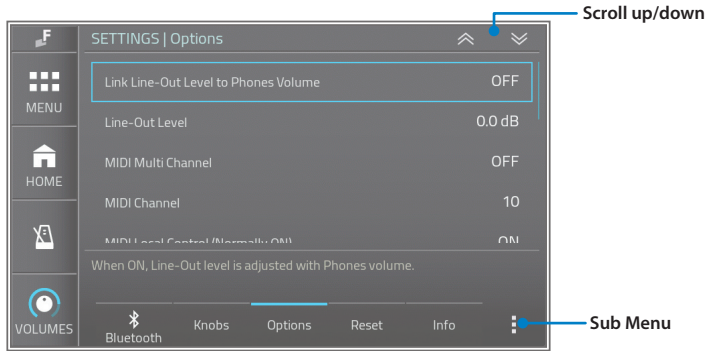
**Parameters (Push)**

Disable	Pushing the knob is disabled.
Open Volumes	Opens the corresponding window.
Open Click Setup	
Next Slot (Set-List)	Steps forward/backward of the set-list slot in Home screen.
Previous Slot (Set-List)	
Go to Home	Goes to Home screen.
Go to Bus Mixer	Goes to Bus Mixer screen.

\* The function of the [VALUE] knob cannot be changed.

## Options

On this screen, various settings for entire EFNOTE PRO can be configured.



### Parameters

Link Line-Out Level to Phones Volume	When ON, both Phones volume and Line-Out level can be controlled by the phones volume.
Line-Out Level	Adjusts Line-Out level.
MIDI Multi Channel	When ON, a separate channel number is configured for each pad. See the "Multi MIDI channel" table.
MIDI Channel	Configures global MIDI channel. Available only when the MIDI Multi Channel is OFF.
MIDI Local Control	This should be ON normally. When OFF, the notification indicator shows it. Turning OFF inactivates the internal connection between the pad and the sound generator.
Display Brightness	Adjusts the display back light brightness.
Foot Light Dimmer	Adjusts the foot light brightness.
Beat Flash	When the click is on, the Ring LEDs display the beat.
Auto Power Saving	The power save function will turn power off automatically after specified inactive period. When enabled, the notification indicator shows it. <b>NOTE</b> Set to "Disable" when using EFNOTE PRO on stage.
Kit Switching	Configures how to switch drum kits on the home screen by swiping or tapping.
Demo Mode	This should be OFF, normally. When ON, the notification indicator shows it. <b>CAUTION</b> If ON, all data and settings are deleted/initialized automatically every time you turn this sound module on.

### Sub Menu

RESET...	Initializes all parameters on this screen.
----------	--------------------------------------------

### Multi MIDI channel

\* Each channel setting is not changeable.

Pad	Ch
Kick	1
Snare	2
Tom 1	3
Tom 2	4

Pad	Ch
Tom 3	5
Tom 4	6
Tom 5	7

Pad	Ch
HH	8
Ride	9
Crash 1	10
Crash 2	11

Pad	Ch
Crash 3	12
Crash 4 / FX	13
Cr5 / Splash	14
Cr 6 / China	15

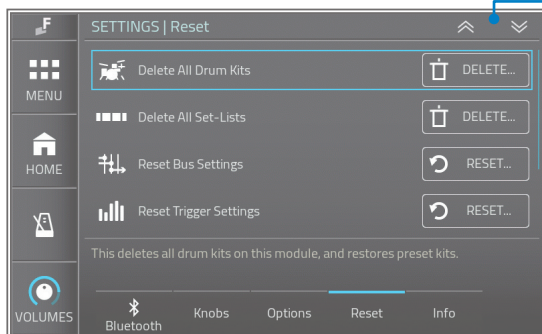
## Reset

On this screen, you can delete, initialize, or reset data and settings in a specified area.

### CAUTION

With the reset operation, you will permanently lose the edited data or settings in the specified area.

Scroll up/down

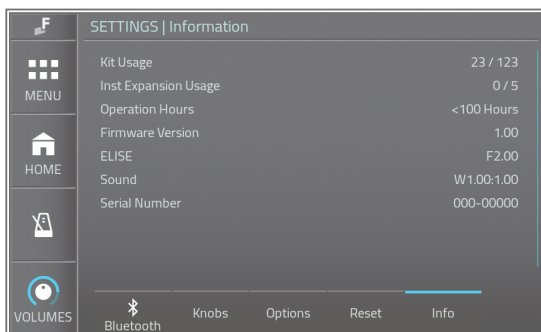


### Parameters

Delete All Drum Kits	Deletes all user drum kits, and restores all preset drum kits, on this sound module.
Delete All Set-Lists	Deletes all set-lists on this sound module.
Reset Bus Settings	Resets bus settings, including bus assignment, bus effects, Bus Mixer, and bus output settings.
Reset Trigger Settings	Resets trigger settings for all trigger inputs.
Reset System Settings	Resets all system settings, including recorder, Bluetooth, function knobs, and items in the options tab.
Reset ALL	Initializes all settings and returns them to their factory defaults.

## ■ Info

This screen displays information about EFNOTE PRO.



### Parameters

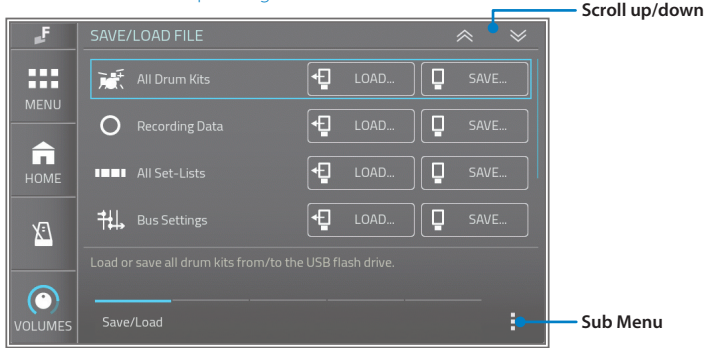
Kit Usage	Number of drum kits currently used.
Inst Expansion Usage	Number of Inst expansion slots currently used.
Operation Hours	Total uptime
Firmware Version	Firmware version
ELISE	ELISE sensing processor version
Sound	Sound ROM version
Serial Number	Serial number

## SAVE/LOAD

On this screen, you can save entire specified data area to a USB flash drive, and load it. To be available, insert a USB flash drive to the USB port on the control surface. --> p. 13

**NOTE**

Loading file deletes the data in the corresponding area on the sound module.



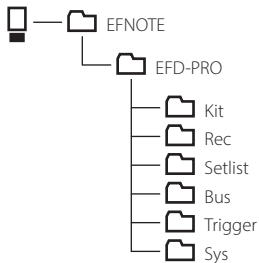
### Parameters

Item	Description	File Location
All Drum Kits	Saves/loads all drum kits including modified preset drum kits.	/Kit/xxx.efdpKitA
Recording Data	Saves/loads all recording data on all tracks.	/Rec/xxx.efdpRecA
All Set-Lists	Saves/loads all set-lists.	/Setlist/xxx.efdpStlA
Bus Settings	Saves/loads bus settings including bus assignment, bus effects, Bus Mixer, and bus output settings.	/Bus/xxx.efdpBus
System Settings	Saves/loads all system settings.	/Sys/xxx.efdpSys
ALL	Saves/loads all data and settings on this sound module.	/xxx.efdpAll

### Sub Menu

FORMAT...	Formats the USB flash drive. <b>CAUTION</b> Format will deletes all data in the USB flash drive.
-----------	-----------------------------------------------------------------------------------------------------

### File Path

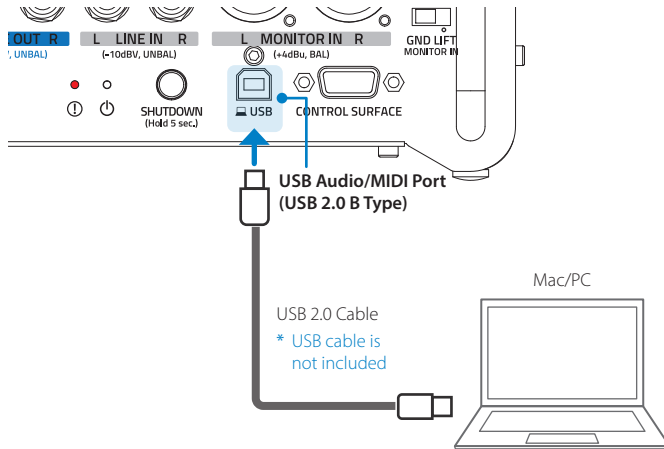


### Save/Load Functions for Individual Data

Parameters	Screen	File Location	Page
Individual drum kit	HOME	/Kit/xxx.efdpKit	p. 15
Current drum kit (Save only)	KIT EDIT		p. 25
Global pan settings	GLOBAL PAN	/Sys/xxx.efdpGpn	p. 30
Individual set-list	SET-LIST EDIT	/Setlist/xxx.efdpStl	p. 33
Trigger settings	TRIGGER	/Trigger/xxx.efdpTrig	p. 47

# Connecting to your Mac/PC

By connecting EFNOTE PRO to your Mac/PC, you can send 12-channel audio signals to your computer for recording, or record/play MIDI data.



- \* For the detailed supported OS information, refer to the website (p. 5).
- \* About the USB connection to a computer, the operation is not guaranteed for all environments. Some computers may not be fully compatible.
- \* About the operation of computers or application softwares, please refer to their manuals.

## Interfaces

USB Audio	Out	12ch (48kHz / 24bit)
	In	2ch (48kHz / 16bit)
USB MIDI	Out	16ch
	In	16ch

## ASIO Driver for Windows PC

The ASIO driver installation is needed for the high quality USB audio streaming with 12 channel audio outputs.

The ASIO driver is available on the website (p. 5).



## USE CASES



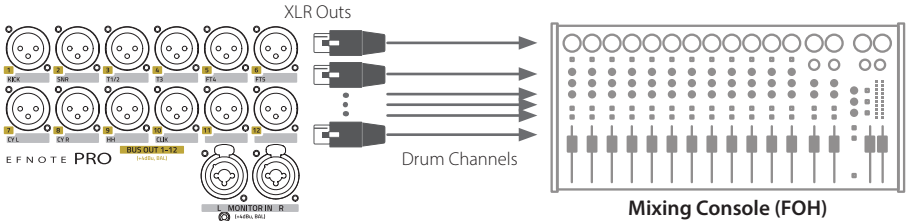
EFNOTE DRUMS

## Using Buses and XLR Outputs

EFNOTE PRO is equipped with 12 buses and 12 corresponding XLR outputs, and the sound of each pad can be output individually.

### Bus Assignment Examples

EFNOTE PRO allows flexible bus assignment according to the number of drum channels on your mixer. Here are some examples of bus assignments.



	XLR Outputs (Bus Assignment)													
	1	2	3	4	5	6	7	8	9	10	11	12		
2 chs					Bus Mix L/R									*1*2
2 chs	Main L/R													*2
3 chs	Main L/R		Snare											*2*3
4 chs	Main L/R		Kick	Snare										*2*3
4 chs			Kick	Snare	Bus Mix L/R									*1*2
4 chs	Kick	Snare	Toms				Cyms							
5 chs	Kick	Snare	Toms				Cyms	Hi-Hat						
6 chs	Kick	Snare	Tom 1/2/3	F. Tom 4/5			Cyms	Hi-Hat						
7 chs	Kick	Snare	Tom 1/2/3	F. Tom 4/5			Cymbals L/R	Hi-Hat						
8 chs	Kick	Snare	Tom 1/2	Tom 3	F. Tom 4/5		Cymbals L/R	Hi-Hat						
10 chs	Kick	Snare	Tom 1/2	Tom 3	F. Tom 4	F. Tom 5	Cymbals L/R	Hi-Hat	Ride					
10 chs	Kick	Snare	Tom 1/2	Tom 3	F. Tom 4	F. Tom 5	Cymbals L/R	Hi-Hat	Click					*4
12 chs	Kick	Snare	Tom 1/2	Tom 3	F. Tom 4	F. Tom 5	Cymbals L/R	Hi-Hat L/R			Ride L/R			
12 chs	Kick	Snare	Tom 1/2	Tom 3	F. Tom 4	F. Tom 5	Cymbals L/R	Hi-Hat L/R			Line In L/R			*5
12 chs	Kick	Snare	Tom 1/2	Tom 3	F. Tom 4	F. Tom 5	Cymbals L/R	Hi-Hat	Click		Line In L/R			*4*5 *6

\*1 Bus Mix L/R is a 2ch audio that mixes each bus with the built-in Bus Mixer. -> p. 62

\*2 XLR 1/2 outputs can be flipped to Main L/R outputs, and XLR 5/6 outputs can be flipped to Bus Mix L/R. -> p. 40

\*3 Specific pads can be excluded from the Main L/R. -> p. 45

\*4 On-board click (metronome) can be assigned to the bus so that the other players can hear it. -> p. 35

\*5 Audio signal input to the Line In can be assigned to the bus. -> p. 35

\*6 Default bus assignments.

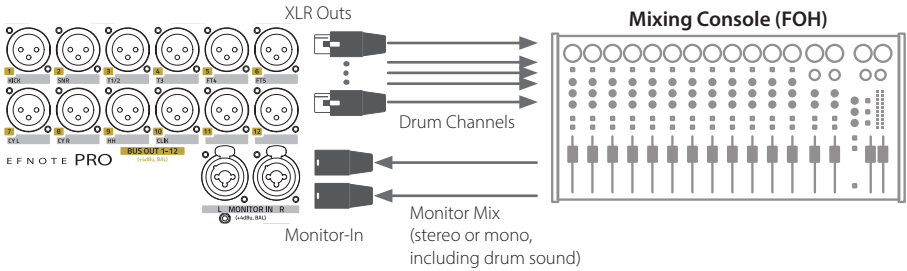
• Audio on Bus 1–12 can also be sent to your Mac/PC through the USB audio simultaneously. -> p. 58



## Using Monitor-In XLR Inputs to Listen to Monitor-Mix Audio

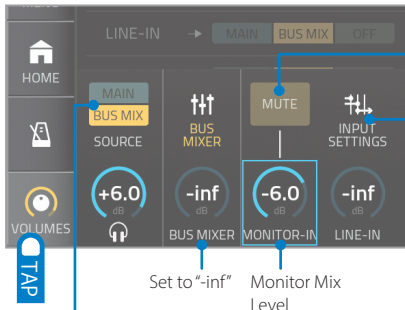
By using Monitor-In XLR inputs, you can connect monitor-mix audio line from FOH mixer directly to EFNOTE PRO, and you can monitor it with your headphones connected to EFNOTE PRO.

- \* In this example, the monitor-mix audio must include the drum sound in addition to the rest of the band sound. As for the case that the monitor-mix audio does not include the drum sound, see "Creating the best balanced drum monitor sound for drummers" (p. 62).



### Volumes Widget

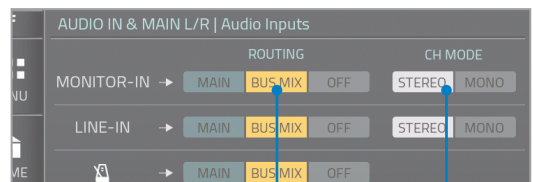
Adjust the monitor-mix input level.



To listen to the Bus Mix L/R sound with headphones, switch to BUS MIX.

- \* Please make sure the BUS MIXER level is set to "-inf", otherwise drum sound via bus mixer is also sent to your headphones.
- \* In case the monitor mix audio does NOT contain the drum sound, you can monitor your drum sound by using bus mixer. For the detail, see "Creating the best balanced drum monitor sound for drummers" (p. 62).

### Input Settings (Audio Inputs)



Select BUS MIX for Monitor-In.

In case the monitor-mix audio line is mono, set to MONO.

- \* Make sure the Monitor-In is not assigned to any bus on the Bus Assignment screen -> p. 35
- \* When a ground-loop noise occurs, set the GND LIFT switch to the LIFT state. -> p. 10

## Using Bus Mixer and Bus Mix L/R Audio

EFNOTE PRO has Bus Mixer function that mixes 12 buses audio with level/pan controls, and down to the Bus Mix L/R audio.

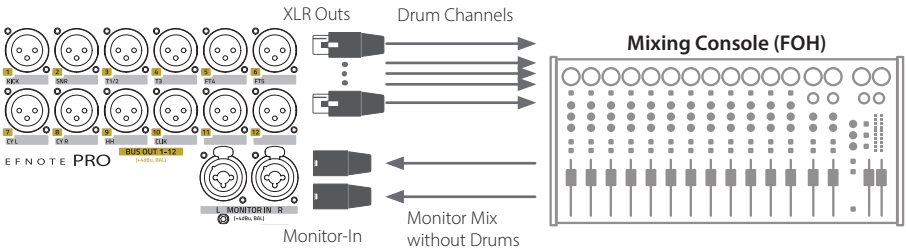
The mixer's level/pan do not affect to either kit edit settings or each bus output level, therefore it helps to listen to the bus sound with headphones, or create 2-channel audio from buses.

The Bus Mixer can be used mainly such as below.

- To create the best balanced drum monitor sound for drummers. -> p. 62
- To mix several buses at your preferred level/pan settings to connect audio by fewer bus channels. -> p. 63
- To create 2-channel drum sound with the bus EQs and compressors. -> p. 64

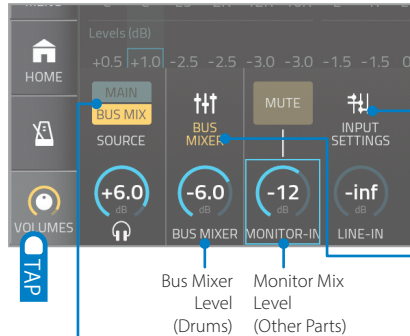
## Creating the best balanced drum monitor sound for drummers

Drummer can adjust each drum/cymbal level without affecting to XLR outputs to FOH, and easily adjust level balance between drums (me) and others. This is useful when the mixing console does not have resources to create dedicated monitor mix for the drummer.



### Volumes Widget

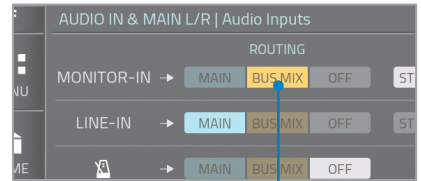
Adjust level balance between drums (me) and others.



To listen to the Bus Mix L/R sound with headphones, switch to BUS MIX.

Bus Mixer Level (Drums)  
Monitor Mix Level (Other Parts)

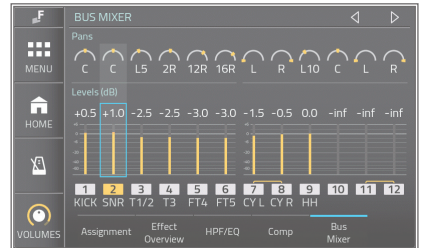
### Input Settings (Audio Inputs)



Select BUS MIX for Monitor-In.

### Bus Mixer

Adjust the level and pan of each bus for drummer.

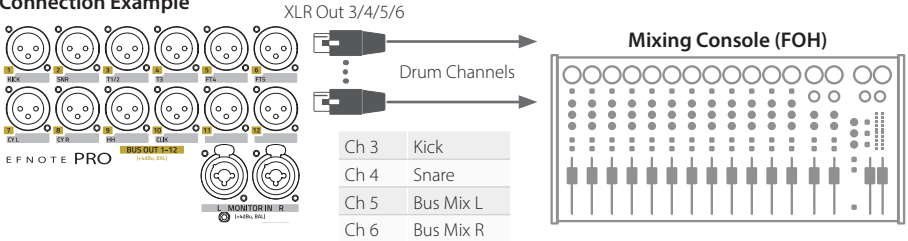


- \* Make sure the Monitor-In is not assigned to any bus on the Bus Assignment screen to avoid double routing. -> p. 35
- \* When a ground-loop noise occurs, set the GND LIFT switch to the LIFT state. -> p. 10

## Mixing several buses to connect audio by fewer bus channels

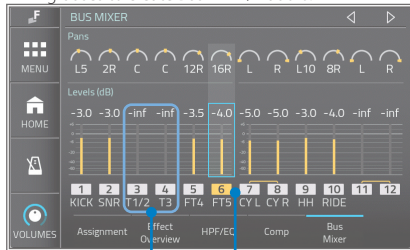
The advantage of using the Bus Mixer to merge several buses is that you can use the EQ and compression on each bus even with fewer bus channel connections.

### Connection Example



### Bus Mixer

Mixing buses to create Bus Mix L/R audio.

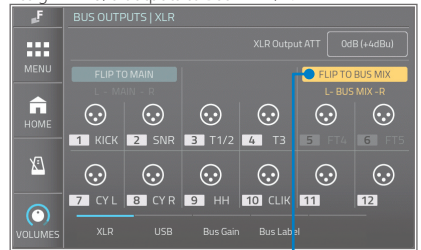


Turn the Kick and Snare levels all the way down.

Adjust the level and pan of each bus outputs to Bus Mix L/R.

### Bus Outputs > XLR

Assign XLR 5/6 outputs to Bus Mix L/R.



Flip XLR 5/6 to Bus Mix L/R

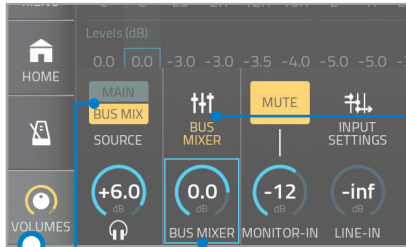
\* Note that changing the level/pan settings on the Bus Mixer while playing will affect the Bus Mix L/R outputs.

\* When recording the Bus Mix L/R with the USB audio, Bus 1/2 cannot be sent to Mac/PC because ch1/2 are used to transmit the Bus Mix L/R. For that reason, Bus 3/4 are used for kick and snare in this example.

## Creating 2-channel drum sound with the bus EQs and compressors

You can simply enjoy playing drums with sounds processed using the bus EQs and compressors.

### Volumes Widget

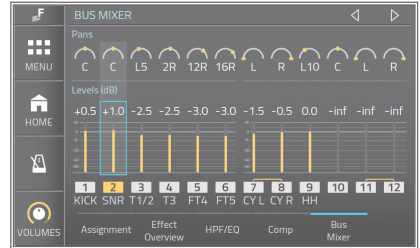


Bus Mixer Level

To listen to the Bus Mix L/R sound with headphones, switch to BUS MIX.

### Bus Mixer

Adjust the level and pan of each bus.



The EQs and compressions on each bus can be used independently.

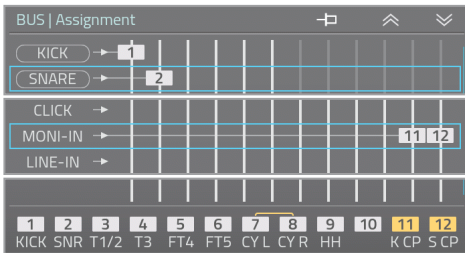
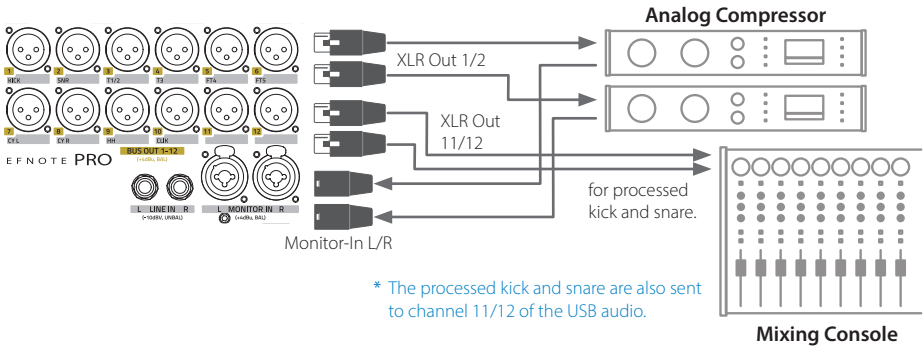
\* Phones outputs and Line-Out always output the same audio signals.

\* The 2-ch drum sound (Bus Mix) can also be sent to XLR 1/2 and/or USB audio ch1/2. -> p. 40, p. 41

## Using External Compressors

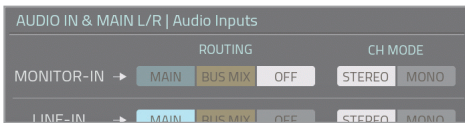
By using the XLR bus outputs, you can use external signal processors such as a compressor or gate. To monitor it with your headphones, the Monitor-In or Line-In can be used to send the processed signals back.

Here, for instance, apply two external analog compressors for kick and snare.



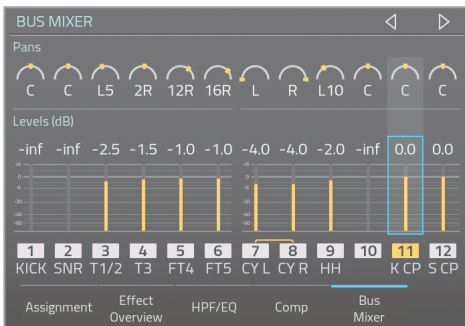
### Bus Assignment

Assign Bus 1 for kick, Bus 2 for snare, and Bus 11+12 for Monitor-In.



### Audio In > Audio Inputs

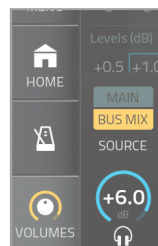
Switch the routing for Monitor-In to OFF.



### Bus Mixer

Turn Bus 1/2 levels all the way down, and turn bus 11/12 levels up for processed kick and snare sounds.

Adjust the levels for toms and cymbals.



### Volumes Widget

Switch the phones source to BUSMIX.

Adjust the Monitor-In level.

## Adding Ambience Sound by Using Your DAW Software Plug-In

By connecting the EFNOTE PRO to your Mac/PC via USB and using your DAW software, you can easily add high quality ambience sound generated by reverb plug-in to the drum sound of the EFNOTE PRO.

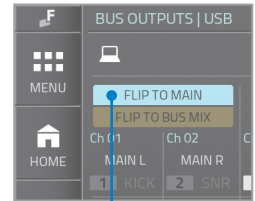
\* DAW software is not included.

Here, as the simplest way, send EFNOTE PRO sound as stereo audio to generate the ambience sound.

1 Connect EFNOTE PRO to your Mac/PC with USB cable.

\* ASIO driver is required for Window PC.

2 Set the channel 1/2 of the EFNOTE PRO USB audio to Main L/R.  
To do so, go to Menu > Bus Outputs > USB, and activate [FLIP TO MAIN].



Flip to MAIN

3 Start your DAW software, and create one stereo audio track.

4 Assign the EFNOTE PRO ch1/2 as audio inputs for the audio track.  
Also, assign the EFNOTE PRO as audio output device.

5 Enable the audio track as a recording track.

6 Insert any of reverb plug-in as an insert effect on the audio track, and open it.

7 Set the mix balance (dry-wet balance) to 100% wet.  
And adjust other settings as you prefer.

8 On the Volumes window of the EFNOTE PRO, you can adjust the reverb level with the USB audio input volume.



Reverb Level

\* This section provides an overview only. The setting methods and parameter names differ depending on the DAW software and plug-in software. See their respective manuals for details.

Reverb plug-in example (Pro Tools®)



# Pop-Up Messages

Message	Explanation
At least one letter is required for the name.	Some of names such as drum kit name requires one or more letters.
Invalid file name found. File name cannot be included following letters. \ / : * ? " < >	There are some letters cannot be used for file names. Replace them to other letters.
Cannot rename the kit. Preset kit cannot be renamed.	Preset drum kit name cannot be changed.
Cannot rename the kit. There is already a kit with the same name.	Drum kit name should be unique, and a drum kit with the same name cannot be created.
Cannot duplicate the kit. There is already a kit with the same name.	
Cannot import the kit. There is already a kit with the same name.	
Cannot duplicate the kit. The internal kit storage is full.	The number of user drum kits has reached to maximum. To duplicate or import the drum kit, delete some of user drum kits. Before delete user drum kits, save them to a USB flash drive as needed.
Cannot import the kit. The internal kit storage is full.	
The recorder stopped working and saved the recorded data. The recording track capacity is full.	The recording memory capacity on this track has reached to maximum. The recorded data has been stored correctly.
The operation can't be completed because the selected file is damaged or contains invalid data.	The file could not be loaded successfully. The file contains invalid data or is damaged
Unsupported USB device found. Please disconnect the device connected to the USB flash drive port.	The USB device being inserted to the USB flash drive port is not supported. Remove it from the port.
Unable to access the USB flash drive because the format of the drive is not supported. Format the drive with the built-in format function.	The USB flash drive being inserted is not accessible due to its format is not supported. Format the drive with built-in format function. --> p. 57
An error has occurred on your USB flash drive. Please make sure the USB flash drive is firmly inserted, and try again.	The USB flash drive is not accessible. Make sure if the drive is firmly inserted to the port, and try again.
Your USB flash drive is full. The operation can't be completed.	The data cannot be saved to the USB flash drive because the drive is out of space.

# Specifications

## Electronic Drums: EFNOTE PRO, EFNOTE PRO 700/500 Series

Sound Module: EFD-PRO

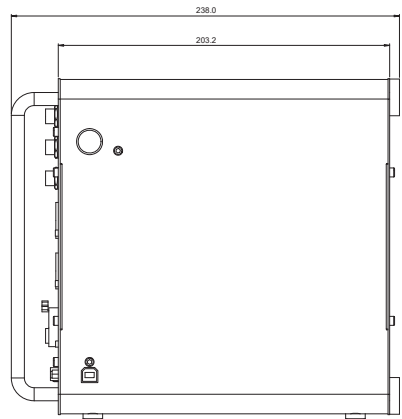
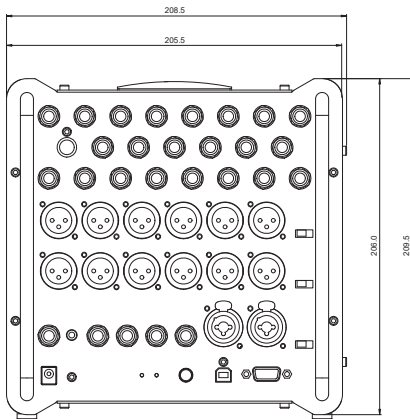
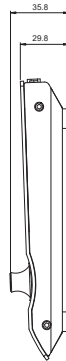
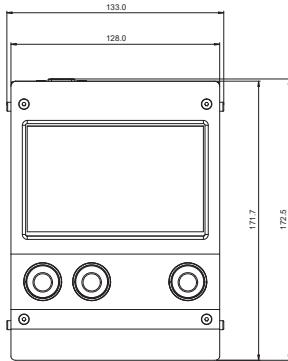
Item	Specifications
Trigger Interface	<ul style="list-style-type: none"> <li>• 3-Zone: (7x) Snare, Hi-Hat, Ride, Crash 1/2/3/4(FX)</li> <li>• 2-Zone: (7x) Tom 1/2/3/4/5, Crash 5(Splash), Crash 6(China)</li> <li>• 1-Zone: (1x) Kick</li> </ul>
Audio / MIDI Interface	<ul style="list-style-type: none"> <li>• Bus Out: 12x XLR(M) (+4dBu, Balanced, +23dBu Max) Attenuator (-6dB, -12dB, -20dB, -30dB) GND Lift Sw (1--6, 7--12)</li> <li>• Line Out: 2x 1/4"TS Phone (-10dBV, Unbalanced, +14dBV Max)</li> <li>• Phones Out: 1x 1/4" Stereo (320 + 320 mW @32Ω) 1x 1/8" Stereo (320 + 320 mW @32Ω)</li> <li>• Monitor In: 2x XLR(F)&amp;1/4"TRS Combo (+4dBu, Balanced, +24dBu Max) GND Lift Sw</li> <li>• Line In: 2x 1/4"TS Phone (-10dBV, Unbalanced, +10dBV Max)</li> <li>• USB: USB (B type) Port (Hi-Speed), Audio 12ch Out / 2ch In, MIDI In/Out</li> <li>• Bluetooth: Audio Input (A2DP), MIDI In/Out (Bluetooth Low Energy/GATT) Transmission Frequency: 2402--2480 MHz, Maximum Transmit Power: 2.5 mW EIRP</li> <li>• MIDI Out: 5-pin DIN</li> </ul>
Other Interface	<ul style="list-style-type: none"> <li>• Link Port: D-SUB 9-pin, Use included link cable (EFD-DSUB9-2) only</li> <li>• USB (Flash Drive): USB (A type) Port (USB 2.0), Supports flash drive only</li> <li>• USB (For Service): USB (B type) Port, For service purpose only</li> </ul>
Recorder	<ul style="list-style-type: none"> <li>• Resolution: 480 TPQN</li> <li>• Tracks: 15</li> </ul>
Power Supply / Current Draw	AC Adapter (FJ-SW1202000N-EFNOTE) DC 12V / 1.5A
Dimensions / Weight	Control Surface: 128 (W) x 172 (D) x 30 (H) mm / 700 g Base Unit: 206 (W) x 210 (D) x 238 (H) mm / 3,250 g * Excluding protrusions

\* 0dBu = 0.775Vrms, 0dBV = 1.0Vrms

\* Specification and design are subject to change without prior notice.



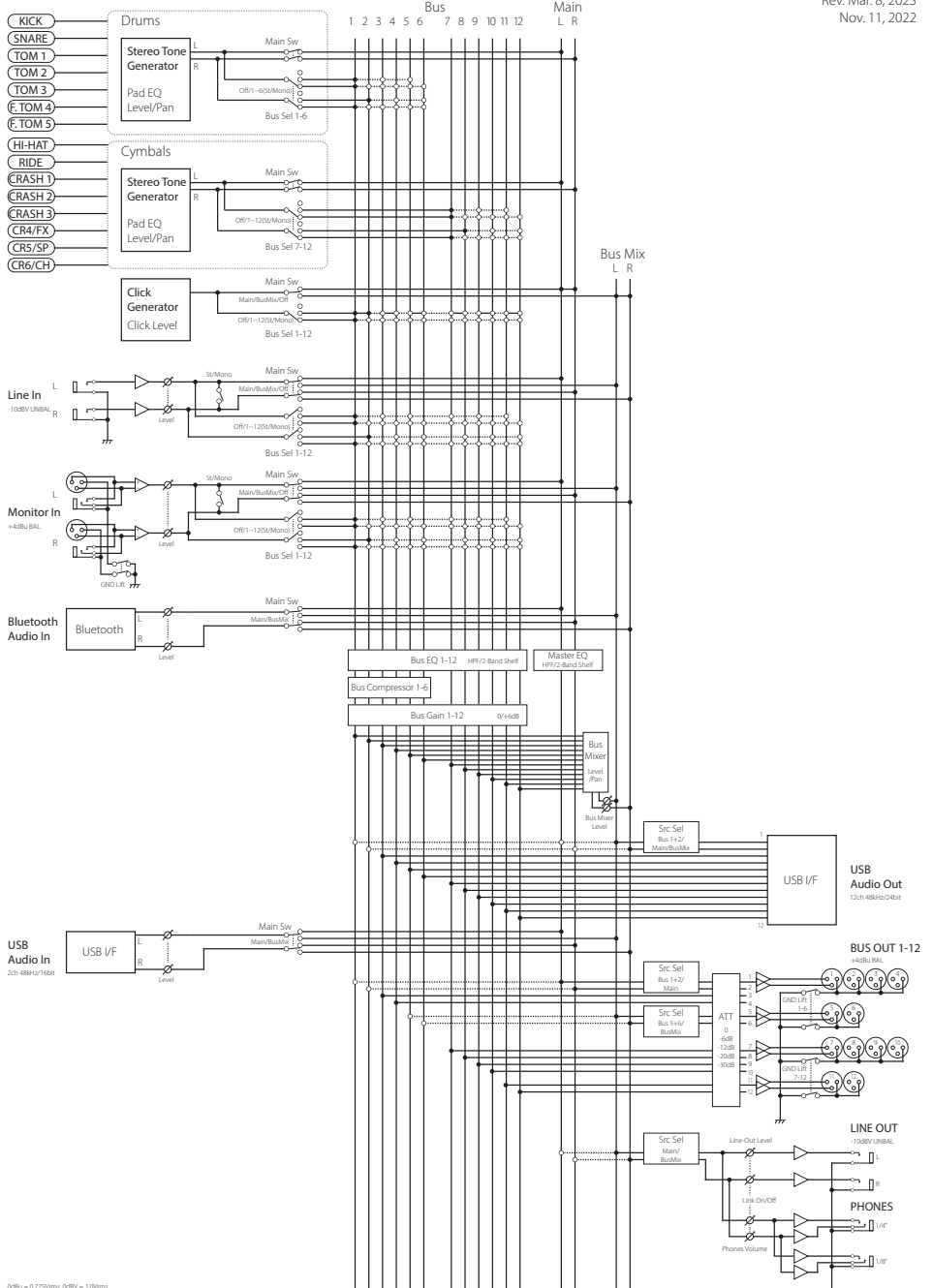
Dimensions (EFD-PRO)



Unit: mm

Figures are design values and actual dimensions may differ.

Audio Block Diagram (EFD-PRO)



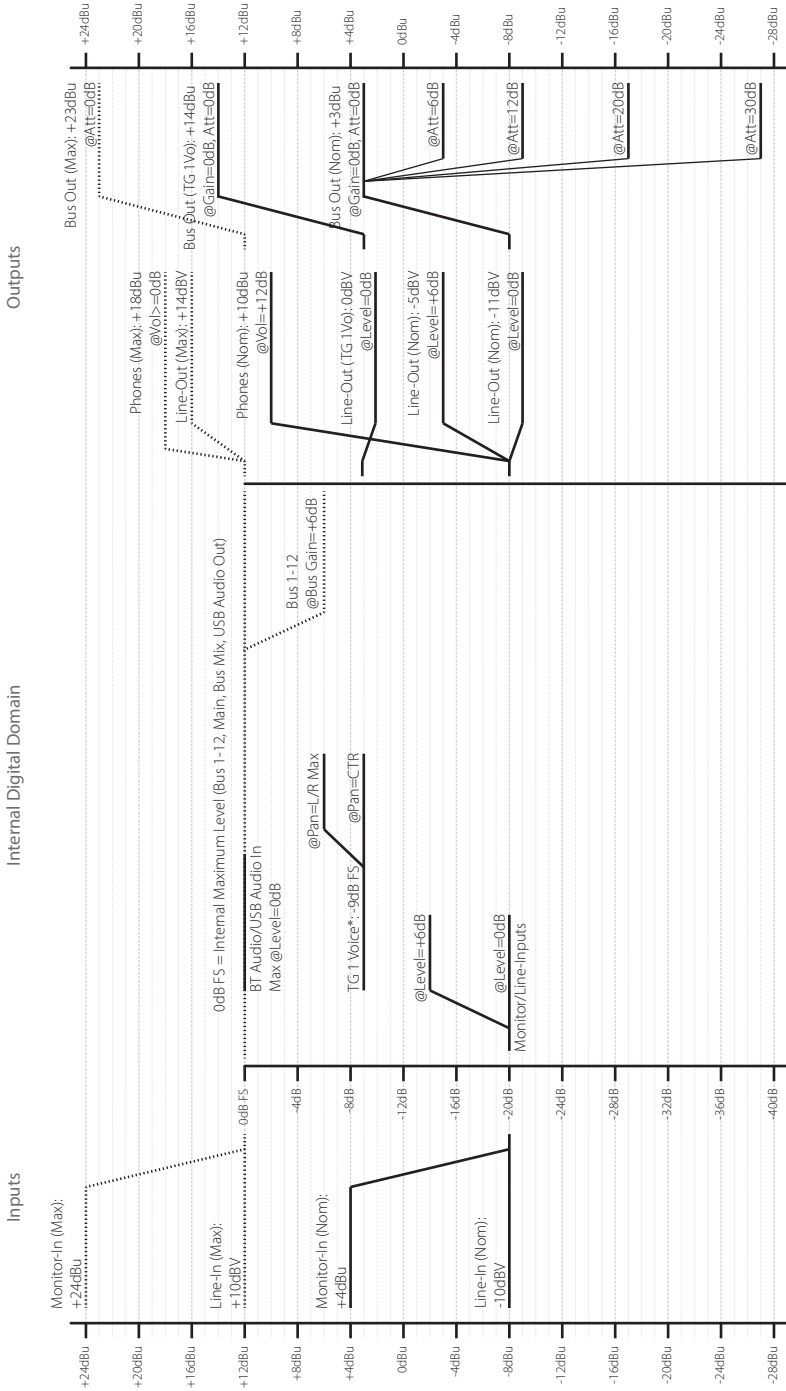
0dBu = 0.775Vrms, 0dBV = 1.0Vrms

# Audio Level Diagram (EFD-PRO)

EFNote Inc.  
Rev. Feb. 23, 2023  
Nov. 11, 2022

## Internal Digital Domain

## Outputs



\* TG 1 Voice @Velocity=Max, Kit/Pad/Zone Levels=0dB.  
Actual voice levels depend on the internal level settings.

- Output levels @22kΩ Load.
- Analog levels are typical values and actual levels may vary.

0dBu = 0.775Vrms, 0dBV = 1.0Vrms

E F N O T E

[ef-note.com](https://ef-note.com)