



EX-4

Reference Manual

Before using this unit, carefully read the information in "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (the leaflet "Read Me First"). After reading, keep the document(s) where it will be available for immediate reference.

Contents

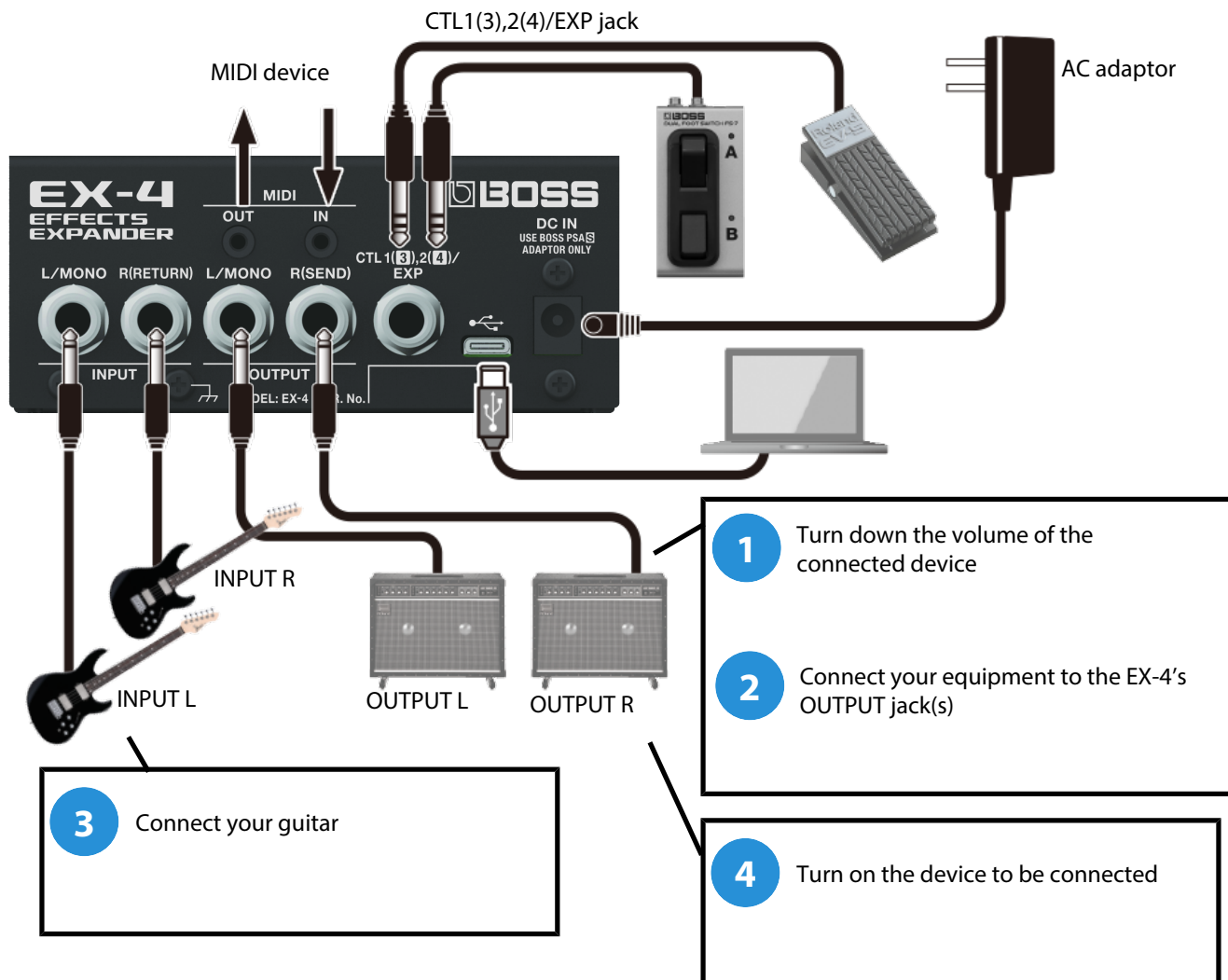
Getting ready	3	Receiving bulk data saved on your computer (MIDI BULK LOAD)	51
Connecting other devices	3	Connection examples	52
Attaching the rubber feet	4	Signal flow	56
Panel descriptions	5	Main specifications	57
Playing	8		
About the play screen	8		
Selecting a memory	8		
Turning the effects on/off	10		
Using the footswitches on this unit to turn the effects on/off	10		
Turning effects on/off using the panel buttons	10		
Recalling recommended settings for each effect (GEAR SUITE)	11		
FSW MODE (footswitch mode)	13		
FSW MODE settings	13		
Changing the FSW mode	15		
Editing the effects	16		
Changing the effect type of the effect block	16		
Editing the effects by using the knobs	18		
Changing the connection order of the effects (EFFECT CHAIN)	19		
Changing the serial/parallel structure of the effects (STRUCTURE)	19		
Changing (exchanging) the order of effects	20		
Saving memories (WRITE)	23		
Footswitch/expression pedal settings (ASSIGN)	25		
Assigning functions	25		
Assigning the preset settings	26		
Connecting external pedals	29		
Configuring the overall settings of the EX-4 (MENU)	30		
Basic menu operations	30		
Setting the colors for the display and footswitches	31		
Restoring the factory settings (factory reset)	32		
SEND/RETURN (S/R MODE)	34		
Enabling the SEND/RETURN feature	34		
Changing the SEND/RETURN insertion point	35		
Useful functions	36		
Disabling simultaneous presses of the footswitches on this unit	36		
Changing the footswitch functions on this unit when in memory mode	36		
Changing the footswitch functions on this unit when in manual mode	36		
Adjusting the output level of this unit	36		
Switching memories without interrupting the sound	37		
Making the effect sound (reverberations) carry over when you switch memories (carryover)	37		
Editing while viewing all parameters	39		
Setting the edit screen parameters as the ASSIGN target	40		
Initializing memories (MEMORY INITIALIZE)	41		
Changing the order of memories (MEMORY ORDER)	42		
Saving your favorite settings to GEAR SUITE	44		
Setting the input to match settings or memories (INPUT SETTING)	46		
Prohibiting knob operations on the play screen (LOCK)	47		
Transferring data from the EX-4 to a computer (MIDI BULK DUMP)	49		

Getting ready

This chapter explains how to get ready to play with the EX-4, including connecting the devices, how to make the basic settings suitable for your amp and so on.

Connecting other devices

- * To prevent malfunction and equipment failure, always turn down the volume, and turn off all the devices before making any connections.
- * Before turning the unit on/off, always be sure to turn the volume down. Even with the volume turned down, you might hear some sound when switching the unit on/off. However, this is normal and does not indicate a malfunction.



Name of jack, port or connector	Explanation
INPUT L/MONO, R (RETURN)	Connect your guitar or the output(s) of another effect unit to be inserted into the effect chain before this unit. When connecting this unit after a stereo effect unit in the effect chain, connect to the R (RETURN) jack as well. When using the send/return feature, connect your external effect unit or similar device to the R (RETURN) jack → "Enabling the SEND/RETURN feature (p. 34)" "Connection examples (p. 52)"
OUTPUT L/MONO, R (SEND)	Connect these to your guitar amp, mixer or other external audio equipment. If using a mono connection, connect only to the L/MONO jack. When using the send/return feature, connect your external effect unit or similar device to the R (SEND) jack. → "Enabling the SEND/RETURN feature (p. 34)" "Connection examples (p. 52)"
CTL1(3),2(4)/EXP	You can control various parameters by connecting an expression pedal (FV-500L, FV-500H, EV-30, Roland EV-5: sold separately) or a footswitch (FS-5U, FS-5L, FS-6, FS-7: sold separately). * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit. * For more about the footswitch settings, refer to "Connecting external pedals (p. 29)".
MIDI IN/OUT	Connect an external MIDI device here.

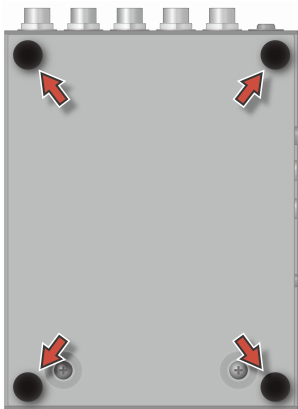
Getting ready

Name of jack, port or connector	Explanation
• (USB Type-C®)	Use a USB cable to connect to a computer, for exchanging MIDI data between the EX-4 and the computer. * Do not use a USB cable that is designed only for charging. Charge-only cables cannot transmit data.
DC IN	Connect the included AC adaptor (PSA-S series) here. * Use only the specified AC adaptor, and connect it to an AC outlet of the correct voltage.
Ground terminal 	Connect this to an external earth or ground if necessary.

Attaching the rubber feet

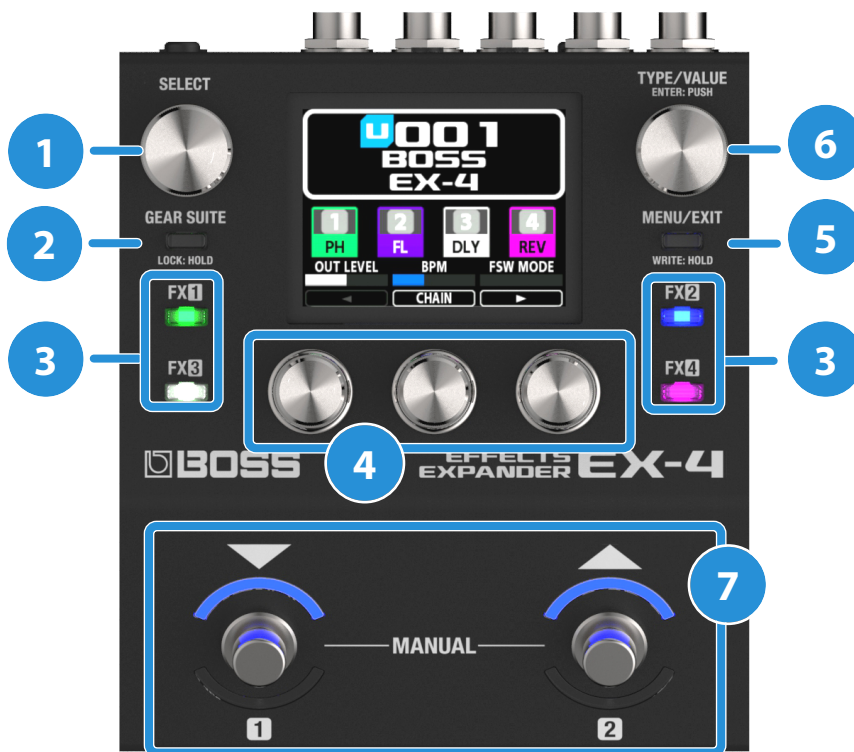
Attach the included rubber feet in the locations shown in the illustration.

* Using the unit without rubber feet may damage the floor.



Panel descriptions

Front panel



1 [SELECT] knob

Moves the cursor.

2 [GEAR SUITE] button (LOCK: HOLD)

Accesses the [GEAR SUITE](#) function (p. 11).

Long-press this button while the [play screen](#) (p. 8) is displayed to turn the [lock feature](#) (p. 47) on/off. This feature prevents the knobs or buttons from being accidentally operated when you're playing.

3 [FX1]–[FX4] buttons

Turns the FX1 through FX4 blocks on/off.

This selects FX1–FX4 on the play screen.

Long-press these buttons to show a [list of parameters for each block](#) (p. 39).

4 [1]–[3] knobs

Turn the knobs to change the parameter values or press the knobs to select items, according to the screen display.

5 [MENU/EXIT] button (WRITE: HOLD)

Press this button while the play screen is shown to access the menu page.

When on other screens besides the play screen, press this to go back to the previous screen or to cancel an operation (exit).

Long-press to access the [WRITE MENU](#) (p. 23) screen.

6 [TYPE/VALUE] knob (ENTER: PUSH)

This knob changes the value at the cursor position or the effect type of the effect block.

Pressing this works like pressing the ENTER button.

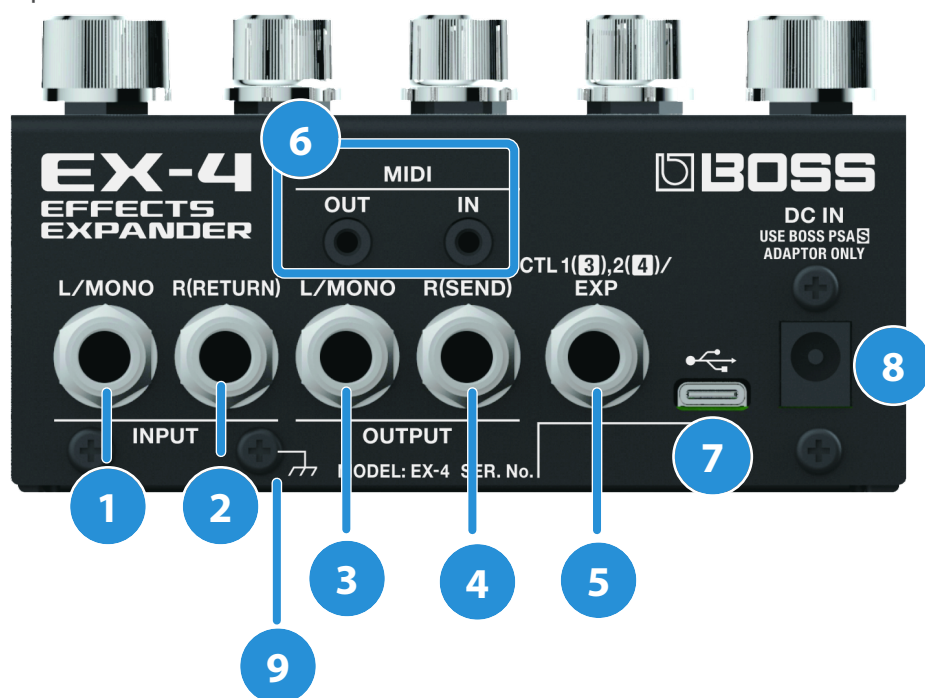
7 [▼/1], [▲/2] switches

Use these switches to switch between memories and to turn effect blocks on/off. → “Footswitch/expression pedal settings (ASSIGN) (p. 25)”

Press both switches at the same time to change the [FSW mode \(p. 13\)](#) (footswitch mode).

The indicator colors and illumination change according to the functions that are assigned to the [▼/1], [▲/2] switches.

Rear panel



1 INPUT L/MONO

Connect your guitar or the output(s) from an external effect unit here.

When connecting the outputs from a stereo effect unit to the inputs of this unit, connect the jack for the L channel signal here.

2 INPUT R (RETURN)

Connect the jack from the stereo effect unit for the R channel signal here.

When using the [send/return feature \(p. 34\)](#), connect the output from the external effect loop here.

3 OUTPUT L/MONO

Connect this to the input of your amp or an external effect unit. If using a mono connection, connect only to the L/MONO jack.

When connecting to the inputs of a stereo effect unit, connect to the input jack for the L channel.

4 OUTPUT R (SEND)

Connect this to the R channel input jack of a second amplifier or stereo effect unit.

When using the [send/return feature \(p. 34\)](#), connect to the inputs of the external effect loop here.

5 CTL1(3),2(4)/EXP jack

Connect an external footswitch or expression pedal here.

6 MIDI OUT/IN

Connect an external MIDI device here.

Connect the MIDI OUT to the input of an external MIDI device. Connect the MIDI IN to the output of the external MIDI device.

7 USB

Use a USB cable to connect to a computer, for exchanging MIDI data between the EX-4 and the computer.

8 DC IN

Connect the included AC adaptor (PSA-S series) here.

The DC IN jack also serves as the power switch. The power turns on whenever a plug is inserted into the DC IN jack, and turns off when the plug is disconnected.

9 Ground/earth connector

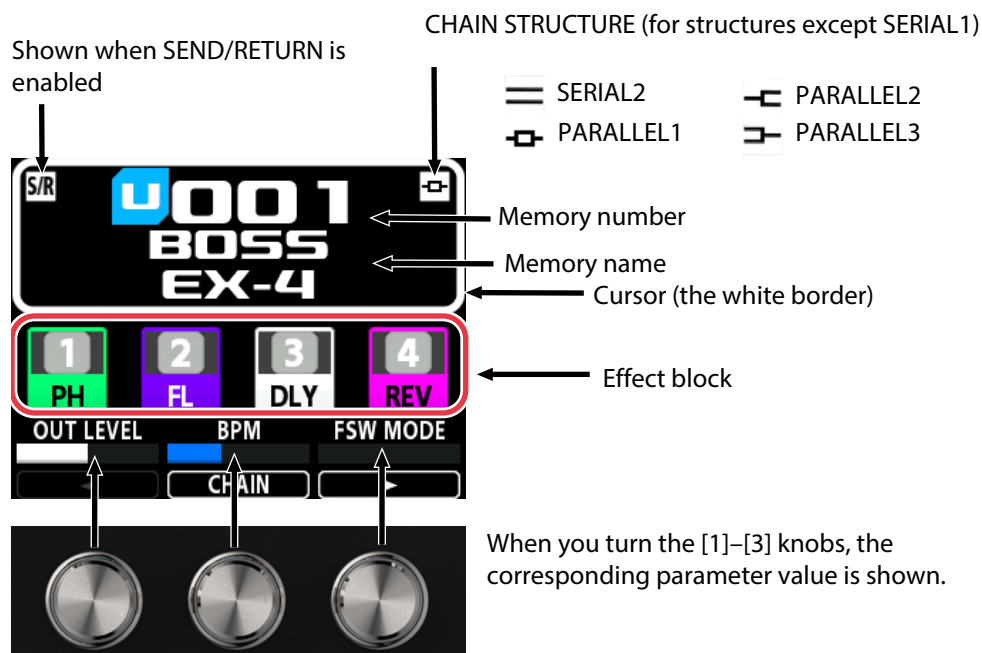
Connect this to an external earth or ground. This should be connected when necessary.

Playing

Now that you've finished getting ready, let's start playing with the EX-4.

About the play screen

The screen that appears after you turn on the power is called the play screen.



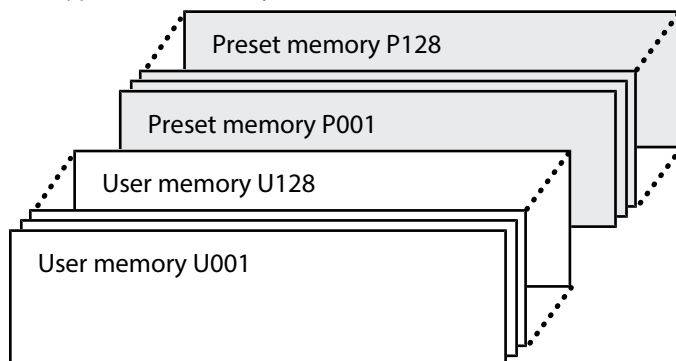
Selecting a memory

The EX-4 features many different effects.

Each combination of these effects and their settings is called a “memory”.

There are two types of memories on the EX-4: the 128 user memories (U001–U128), which can be overwritten; and the 128 preset memories (P001–P128), which can't be overwritten.

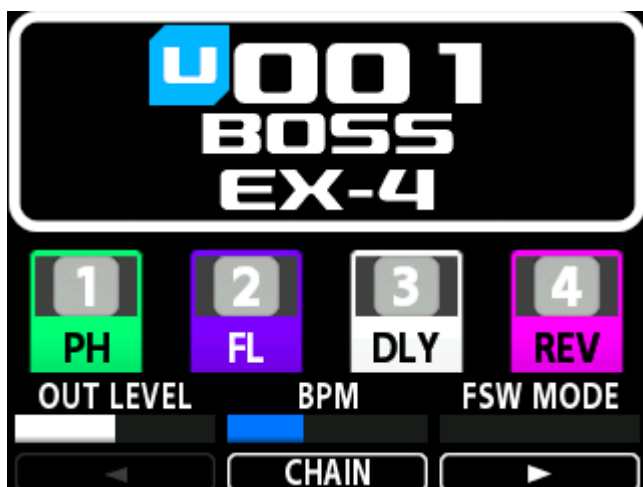
When shipped from the factory, the user memories of this unit contain the same contents as the preset memories.



1 Access the play screen (p. 8).

You cannot switch memories while any screen other than the play screen is displayed. If another screen is shown, press the [MENU/EXIT] button to return to the play screen.

- 2** Turn the [SELECT] knob to move the cursor (the white border) to the memory number.



- 3** Turn the [TYPE/VALUE] knob to select a memory.

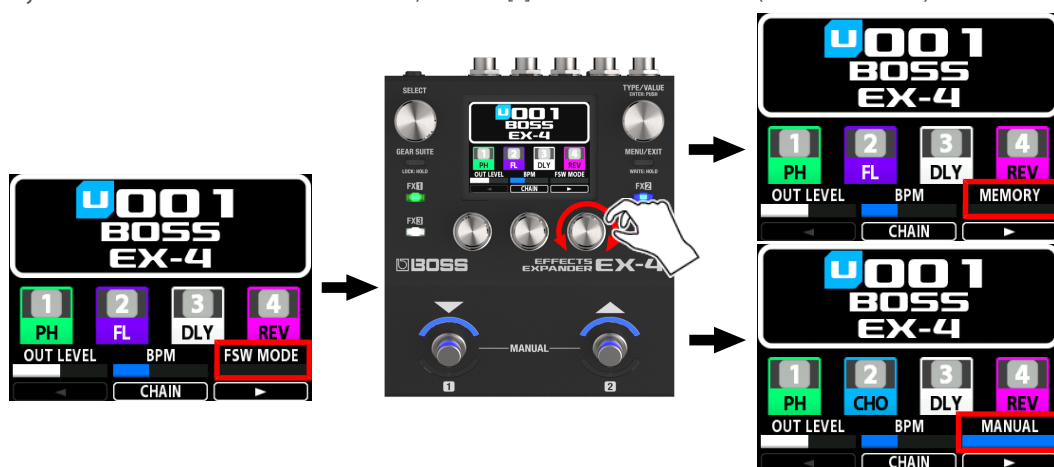
When you turn the [TYPE/VALUE] knob while pressing it, you can fast-forward through the memory numbers.

MEMO

Here is another way to recall the memories.

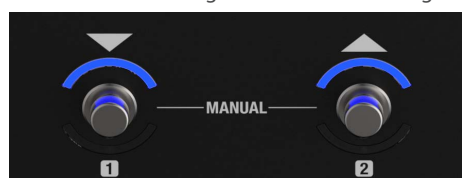
When FSW MODE (footswitch mode) is set to MEMORY (memory mode), press the [▼/1] and [▲/2] switches to select a memory. At this time, when you press the [▼/1] switch to recall the previous memory and then press the [▲/2] switch, this switches to the next memory.

If you want to set FSW MODE to "MEMORY", turn the [3] knob while FSW MODE (footswitch mode) is shown on the screen.

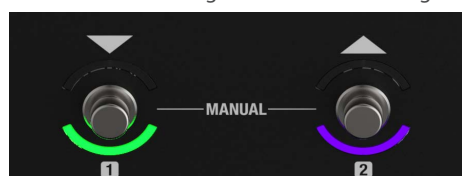


You can also press the [▼/1] and [▲/2] switches at the same time to toggle the FSW MODE (footswitch mode).

Indicators when using the "MEMORY" setting

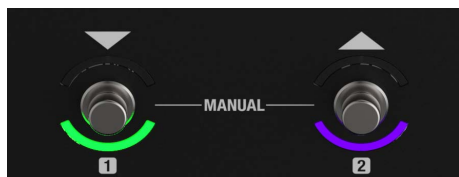


Indicators when using the "MANUAL" setting



Turning the effects on/off

Using the footswitches on this unit to turn the effects on/off



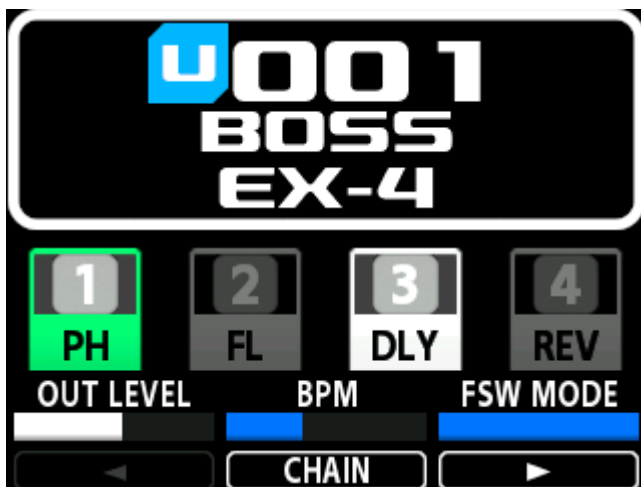
When FSW MODE is set to “MANUAL”, you can press the [▼/1] switch to turn FX1 on/off. Press the [▲/2] switch to turn FX2 on/off. You can also change the settings so that the [▼/1] switch turns FX3 on/off, and that [▲/2] turns FX4 on/off. For details, refer to “Footswitch/expression pedal settings (ASSIGN) (p. 25)”.

Turning effects on/off using the panel buttons

- 1 Press the [FX1]–[FX4] buttons to turn the respective effect blocks on/off.



Effect blocks that are turned on are lit up onscreen, and effect blocks that are turned off are unlit.



MEMO

When you press one of the [FX1]–[FX4] buttons while the cursor is positioned on an effect block (a white border is shown around one of the FX1–FX4 effects), the cursor moves to the effect block corresponding to the button you pressed.

Recalling recommended settings for each effect (GEAR SUITE)

The EX-4 features several recommended settings for each effect type. The function used for easily recalling these settings is called “GEAR SUITE”. You can use this function to easily create sounds by combining settings for each effect, without having to make detailed adjustments to each effect’s parameters.

MEMO

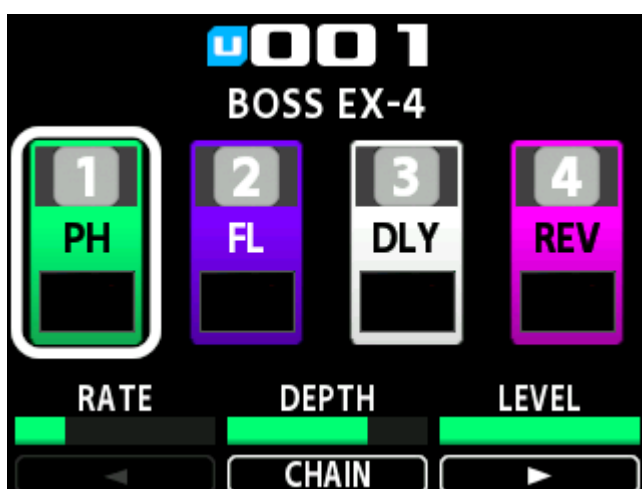
Each effect type features a number of presets (GEAR SUITE P01–) configured by a pro guitarist who knows all about the characteristics of these effects. You can recall these settings simply by turning the knob. You can’t overwrite these presets.

To use new settings in GEAR SUITE, save them as user settings (GEAR SUITE U01–).

→ “Saving your favorite settings to GEAR SUITE (p. 44)”

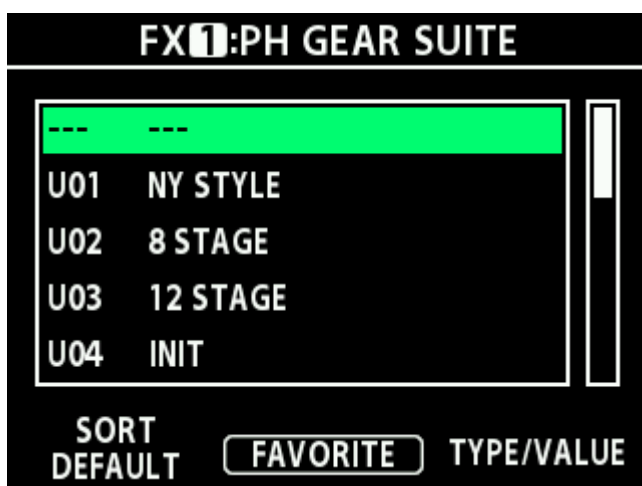
1 Turn the [SELECT] knob to select the effect block.

A white border is shown around the selected effect block.



2 Press the [GEAR SUITE] button.

A list of recommended settings that are saved for the selected effect block type (such as PHASER for the FX1 block, as shown in the image) is shown.



3 Turn the [SELECT] knob to select the settings you like from the list.

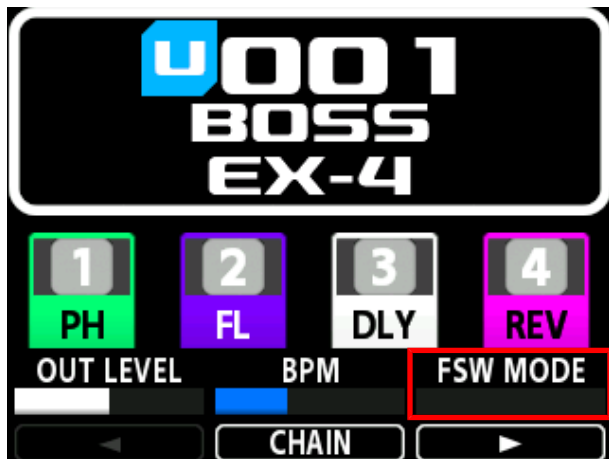
MEMO

Press the [2] knob to register or deregister your favorites. The ☆ mark appears next to the items you register as favorites. You can change the SORT value by turning the [1] knob to show the list in the order you prefer.

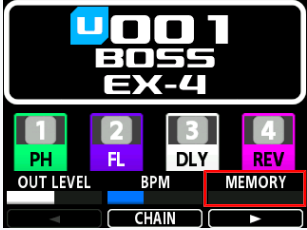
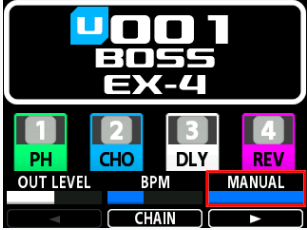
Playing

Value	Explanation
DEFAULT	Shows the USER items first, then the PRESET items.
FAVORITE	The registered favorites are listed first, based on the default order.

FSW MODE (footswitch mode)

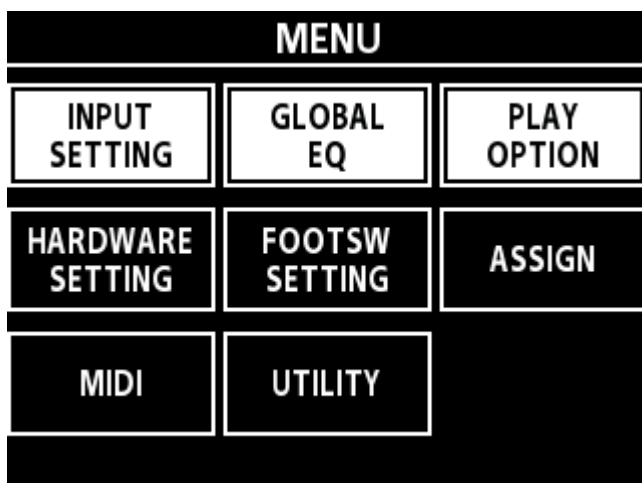


You can switch the FSW MODE to change how the [▼/1] and [▲/2] switches operate when pressed. There are two FSW modes: memory mode and manual mode.

Mode	Explanation
MEMORY (memory mode) 	This mode lets you recall and use the memories that are saved in the unit. Press the [▼/1] switch to switch to the previous memory, and press the [▲/2] switch to switch to the next memory. You can also assign different functions to the [▼/1] and [▲/2] switches.→ Changing the footswitch functions on this unit when in memory mode (p. 36) 
MANUAL (manual mode) 	This mode lets you use the [▼/1] and [▲/2] switches to control the effect blocks.  - Pressing the [▼/1] switch toggles the FX1 block on/off, and pressing the [▲/2] switch toggles the FX2 block on/off. - You can also assign different functions to the [▼/1] and [▲/2] switches.→Footswitch/expression pedal settings (ASSIGN) (p. 25)

FSW MODE settings

1 Press the [MENU/EXIT] button.

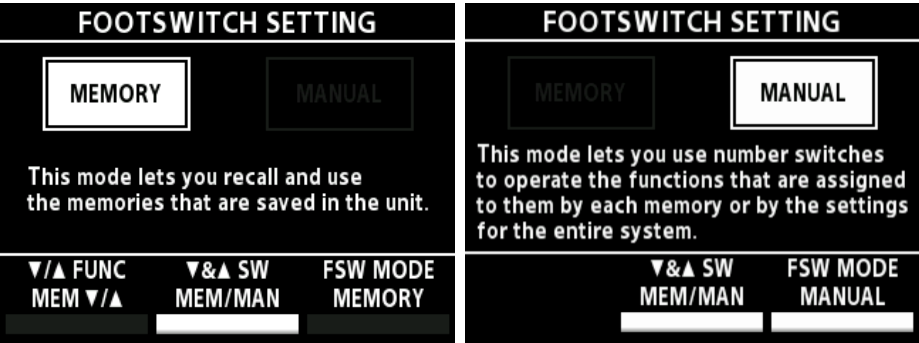


2 Turn the [SELECT] knob to move the cursor to the FOOTSW SETTING row.

3 Press the [2] knob.

This opens the FOOTSWITCH SETTING screen.

4 Turn the [SELECT] knob to select either “MEMORY” or “MANUAL”.



5 Press the [MENU/EXIT] button a number of times to return to the play screen.

MEMO

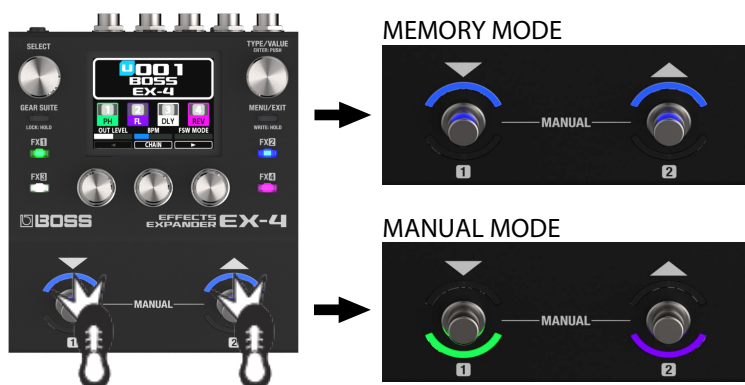
You can switch between FSW modes when screens besides the menu are displayed.→ “Changing the FSW mode (p. 15)”

▼/▲ FUNC→ “Changing the footswitch functions on this unit when in memory mode (p. 36)”

▼ & ▲ switches→ “Disabling simultaneous presses of the footswitches on this unit (p. 36)”

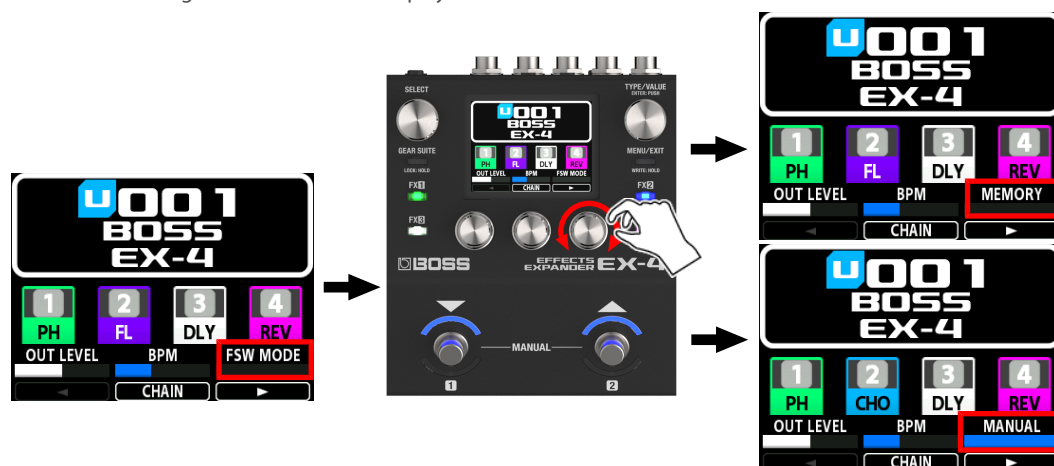
Changing the FSW mode

- 1 Press the [▼/1] and [▲/2] switches at the same time to switch the FSW mode.



MEMO

You can also change FSW MODE from the play screen.

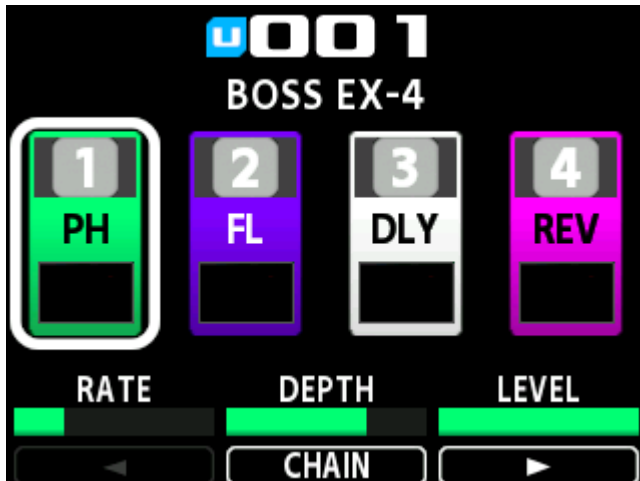


Editing the effects

Changing the effect type of the effect block

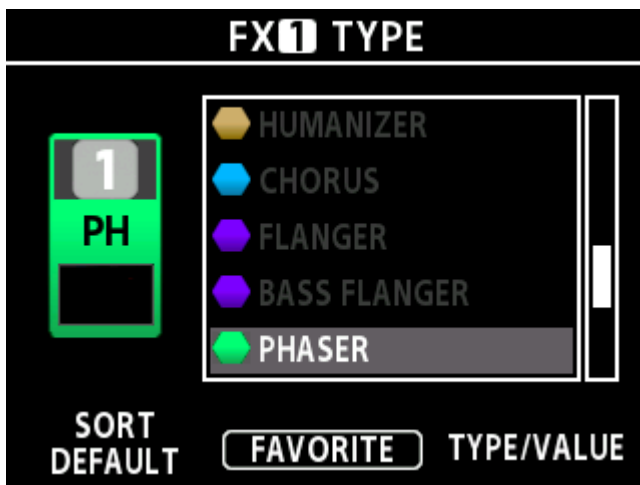
- 1 Turn the [SELECT] knob to select the effect block for which you wish to change the effect type.

A white border is shown around the selected effect block.



- 2 Press the [TYPE/VALUE] knob.

The effect type list appears.



- 3 Turn the [TYPE/VALUE] knob or the [3] knob to select the type.

- 4 Press the [TYPE/VALUE] knob to confirm.

MEMO

By pressing the [2] knob when the effect type list is shown, you can register/deregister your favorite effect types (FAVORITE). The ☆ mark appears next to the types you register as favorites.

While the list is shown, you can show the list in the order you prefer by turning the [1] knob to change the SORT value.

Value	Explanation
DEFAULT	In general, the effects are shown in the order in which they are connected (dynamics -> pitch -> modeling -> distortion -> filter -> modulation -> reverb).
ABC	Lists the effects in alphabetical order.
BSS/GTR	The effects that include bass guitar types and subtypes are shown at the top, based on the default order.
FAVORITE	The registered favorites are listed first, based on the default order.

MEMO

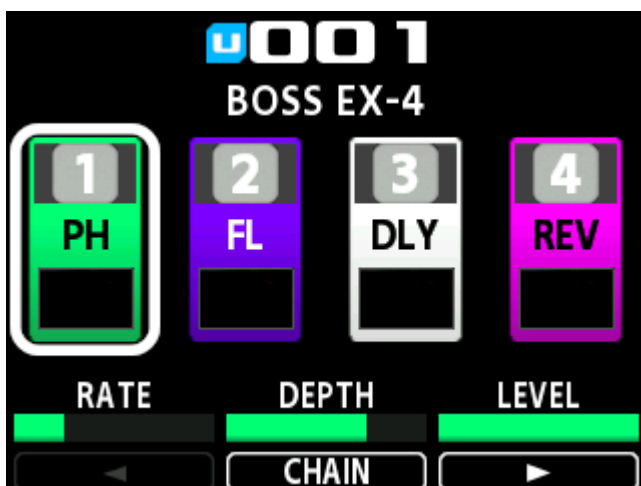
After you turn the [SELECT] knob to select an effect block, you can also turn the [TYPE/VALUE] knob to change the effect type.

Editing the effects by using the knobs

Selecting the effect block to edit

- 1 Turn the [SELECT] knob to select the effect block that you want to edit.

A white border is shown around the selected effect block.



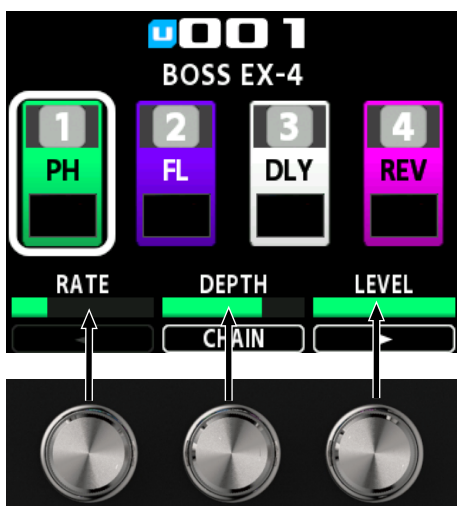
Editing the effects

- 1 Turn knobs [1]–[3] to change the values for the parameters.

On the screen below, you can use the knobs to operate the RATE, DEPTH and LEVEL parameters for the PH (phaser) that's assigned to the FX1 block.

The words shown inside white borders below the parameters (such as "CHAIN") show the screen that opens when you press the corresponding knob. On the screen below, when you press the [2] knob, CHAIN (p. 19) (effect chain) is displayed.

When "◀" and "▶" are shown to the left and right of "CHAIN", press the [1] knob to show the previous three parameters, and press the [3] knob to show the next three parameters.



MEMO

When you turn the [1]–[3] knobs, the corresponding values are shown.

Turn the [1]–[3] knobs while pressing them to change the values in larger steps.

Follow the steps shown in [Saving memories \(WRITE\)](#) (p. 23) to save your edits as a user memory. If you don't save the memory, the edited settings are lost when you turn off the power or switch to another memory.

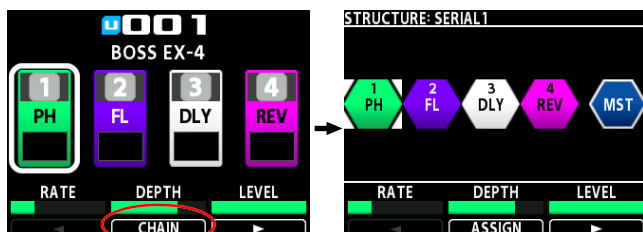
Changing the connection order of the effects (EFFECT CHAIN)

From the effect chain screen, you can change the connection structure of the overall effect block, and rearrange the order of the effects in the effect block.

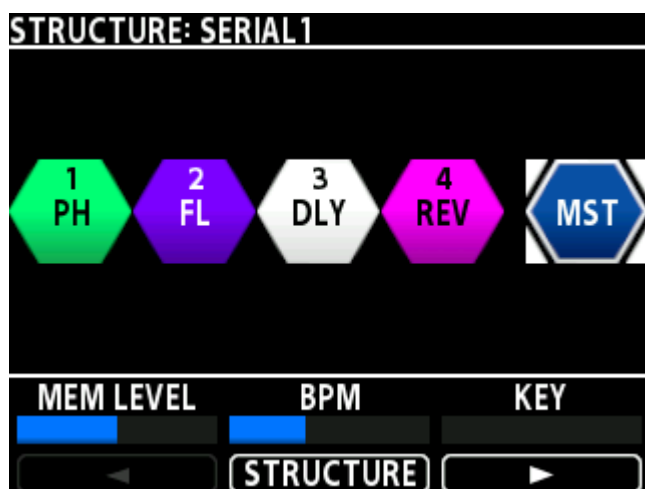
Changing the serial/parallel structure of the effects (STRUCTURE)

You can change the connection structure (STRUCTURE) of the overall effect block.

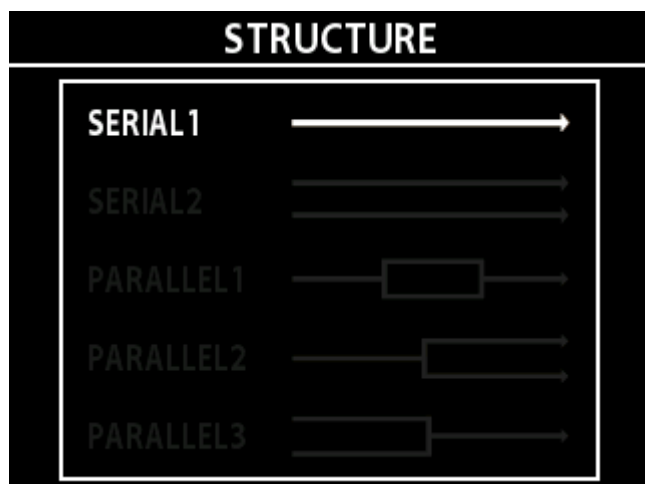
- 1 On the play screen, press the [2] knob to display the chain (effect chain).



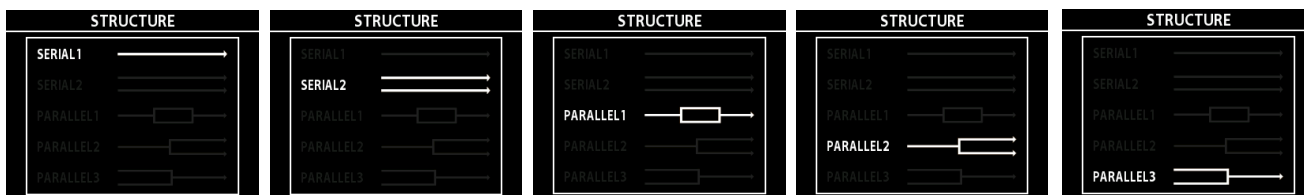
- 2 Turn the [SELECT] knob to select the MST (master) block.



- 3 Press the [2] knob to open the STRUCTURE page.



4 Turn one of the knobs to select the structure type.



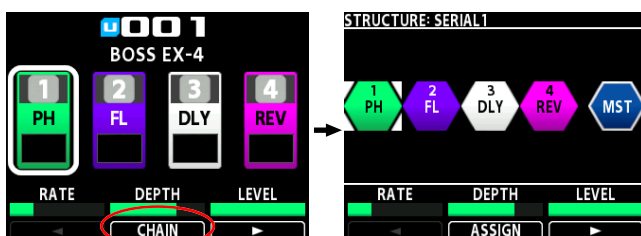
5 Press the [TYPE/VALUE] knob to confirm.

The display returns to the effect chain screen. The selected structure is applied to the effect chain.

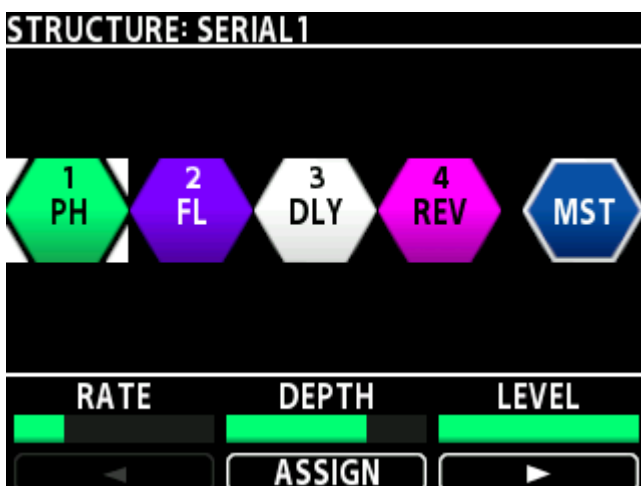
Changing (exchanging) the order of effects

You can select and move effects within the effect chain.

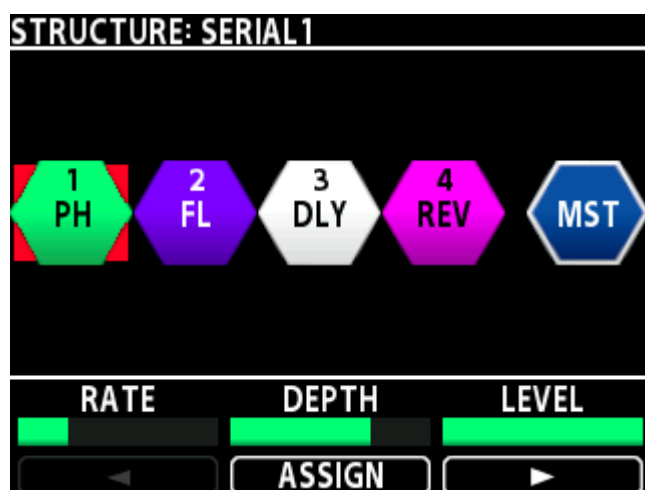
1 On the play screen, press the [2] knob to display the chain (effect chain).



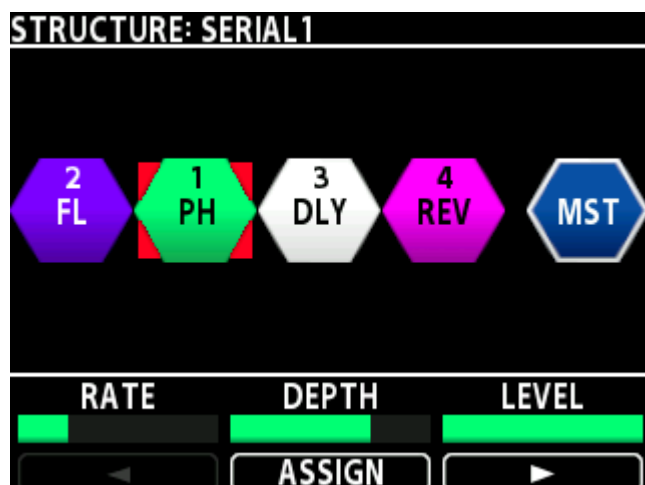
2 Turn the [SELECT] knob to select the effect you want to move.



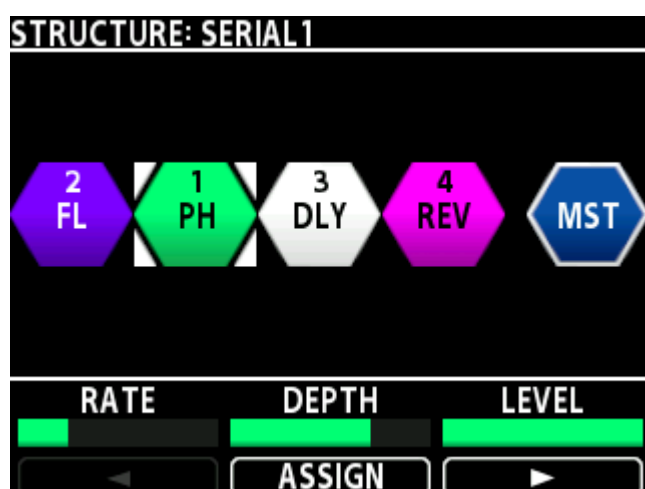
- 3 Press the [SELECT] knob to make the selected block movable.



- 4 Turn the [SELECT] knob to select where to move the effect.



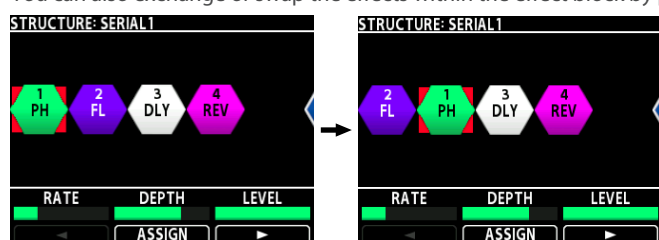
- 5 Press the [SELECT] knob to confirm.



Editing the effects

MEMO

You can also exchange or swap the effects within the effect block by pressing and turning the [SELECT] knob.

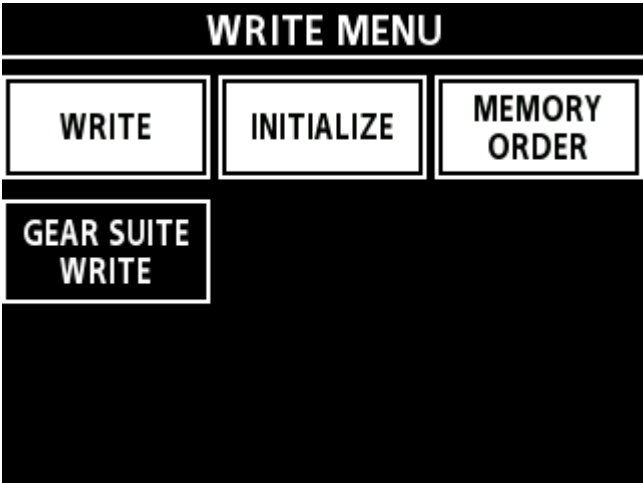


Saving memories (WRITE)

When you want to save your edits, follow the steps below to save them as a user memory. If you don't save the memory, the edited settings are lost when you turn off the power or switch to another memory.

1 Long-press the [MENU/EXIT] button.

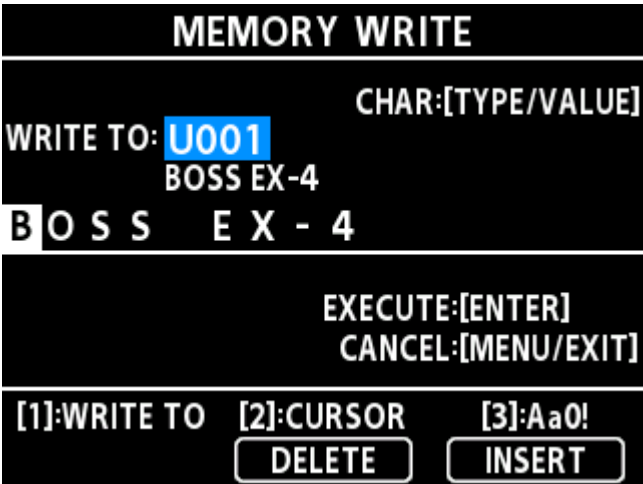
The WRITE MENU screen appears.



2 Turn the [SELECT] knob to move the cursor to the row containing "WRITE".

3 Press the [1] knob.

The MEMORY WRITE screen appears.



4 Turn the [1] knob to select the save destination (U001–U128).

You can't overwrite the presets P001 and up.

5 Use the operation below when you want to change a memory's name.

Operation	Function
Turn the [TYPE/VALUE] knob	Changes the character type (space, uppercase letters, lowercase letters, numbers, symbols)
Turn the [SELECT] knob or the [2] knob	Moves the cursor
Press the [2] knob	Deletes one character (DELETE)
Turn the [3] knob	Changes the character type (uppercase, lowercase, numbers, symbols)

Editing the effects

Operation	Function
Press the [3] knob	Inserts character before cursor (INSERT)

6 Press the [TYPE/VALUE] knob to save the data.

The unit returns to the play screen when saving is finished.

WRITE MENU functions

Menu	Function
WRITE	Saves the edited contents to memory.
INITIALIZE	You can restore (initialize) each effect in a user memory to its standard settings. This is useful when you want to create a new memory from scratch.
MEMORY ORDER	You can change the order of user memories U001–U128.
GEAR SUITE WRITE	You can save the settings of your each effect as a GEAR SUITE (p. 11) .

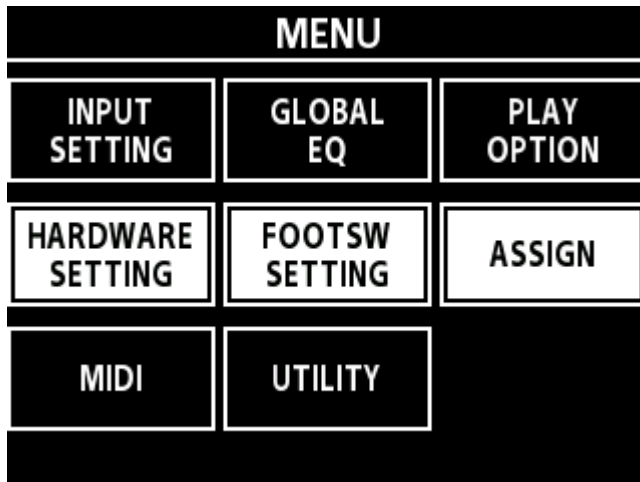
Footswitch/expression pedal settings (ASSIGN)

You can assign various functions to the [▼/1] and [▲/2] switches on this unit, and to an expression pedal or footswitch connected to the CTL1(3),2(4)/EXP jack on the rear panel.

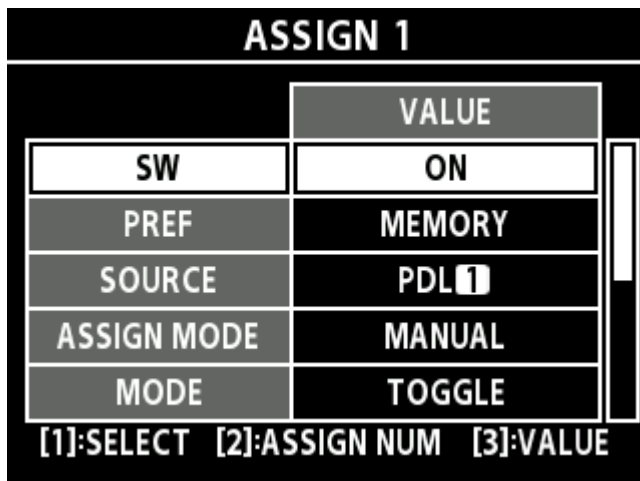
Assigning functions

ASSIGN gives you the freedom to set which controller (source) controls which parameter (target). Up to eight patterns of these combinations can be set in the ASSIGN1–ASSIGN8 slots.

- 1 Press the [MENU/EXIT] button on the play screen.
- 2 Turn the [SELECT] knob to move the cursor to the row containing “ASSIGN”.



- 3 Press the [3] knob to open the ASSIGN screen.



- 4 Turn the [2] knob to select the assign number.

You can set up to eight assignments, from ASSIGN 1 to ASSIGN 8.

- 5 Use the following operation to change the settings.

Operation	Explanation
Turn the [SELECT] knob or the [1] knob	Moves the cursor.
Turn the [TYPE/VALUE] knob or the [3] knob	Changes the value. * For details on the functions that can be assigned, refer to the “EX-4 Parameter Guide” (BOSS website).

6 Press the [MENU/EXIT] button a number of times to return to the play screen.

Assigning the preset settings

You can easily assign functions that are already provided (the preset settings) to the controller that you want.

- 1 Press the [MENU/EXIT] button on the play screen.
- 2 Turn the [SELECT] knob to move the cursor to the row containing "ASSIGN".

MENU		
INPUT SETTING	GLOBAL EQ	PLAY OPTION
HARDWARE SETTING	FOOTSW SETTING	ASSIGN
MIDI	UTILITY	

3 Press the [3] knob to open the ASSIGN screen.

ASSIGN 1	
	VALUE
SW	ON
PREF	MEMORY
SOURCE	PDL 1
ASSIGN MODE	PRESET
PRESET	FX 1 OFF/ON
[1]:SELECT [2]:ASSIGN NUM [3]:VALUE	

- 4** Turn the [SELECT] knob or the [1] knob to move the cursor to **SOURCE**.

ASSIGN 1	
	VALUE
SW	ON
PREF	MEMORY
SOURCE	PDL 1
ASSIGN MODE	PRESET
PRESET	FX 1 OFF/ON
[1]:SELECT [2]:ASSIGN NUM [3]:VALUE	

- 5** Turn the [TYPE/VALUE] knob or the [3] knob to set the source.

This assigns the function to the controller you've selected here.

MEMO

When the cursor is on **SOURCE** and you press the footswitch ([▼]/1) [▲]/2 switches or a connected external pedal switch) to set, you can set that as the source. Check whether the switch you pressed is correctly applied to the **VALUE** of the **SOURCE**.

- 6** Set the **ASSIGN MODE** to **PRESET**.

ASSIGN 1	
	VALUE
SW	OFF
PREF	MEMORY
SOURCE	PDL 2
ASSIGN MODE	PRESET
PRESET	ALL BYPASS
[1]:SELECT [2]:ASSIGN NUM [3]:VALUE	

7 Select the preset setting that you want.

ASSIGN 1	
	VALUE
SW	ON
PREF	MEMORY
SOURCE	PDL 1
ASSIGN MODE	PRESET
PRESET	FX 1 OFF/ON
[1]:SELECT [2]:ASSIGN NUM [3]:VALUE	

MEMO

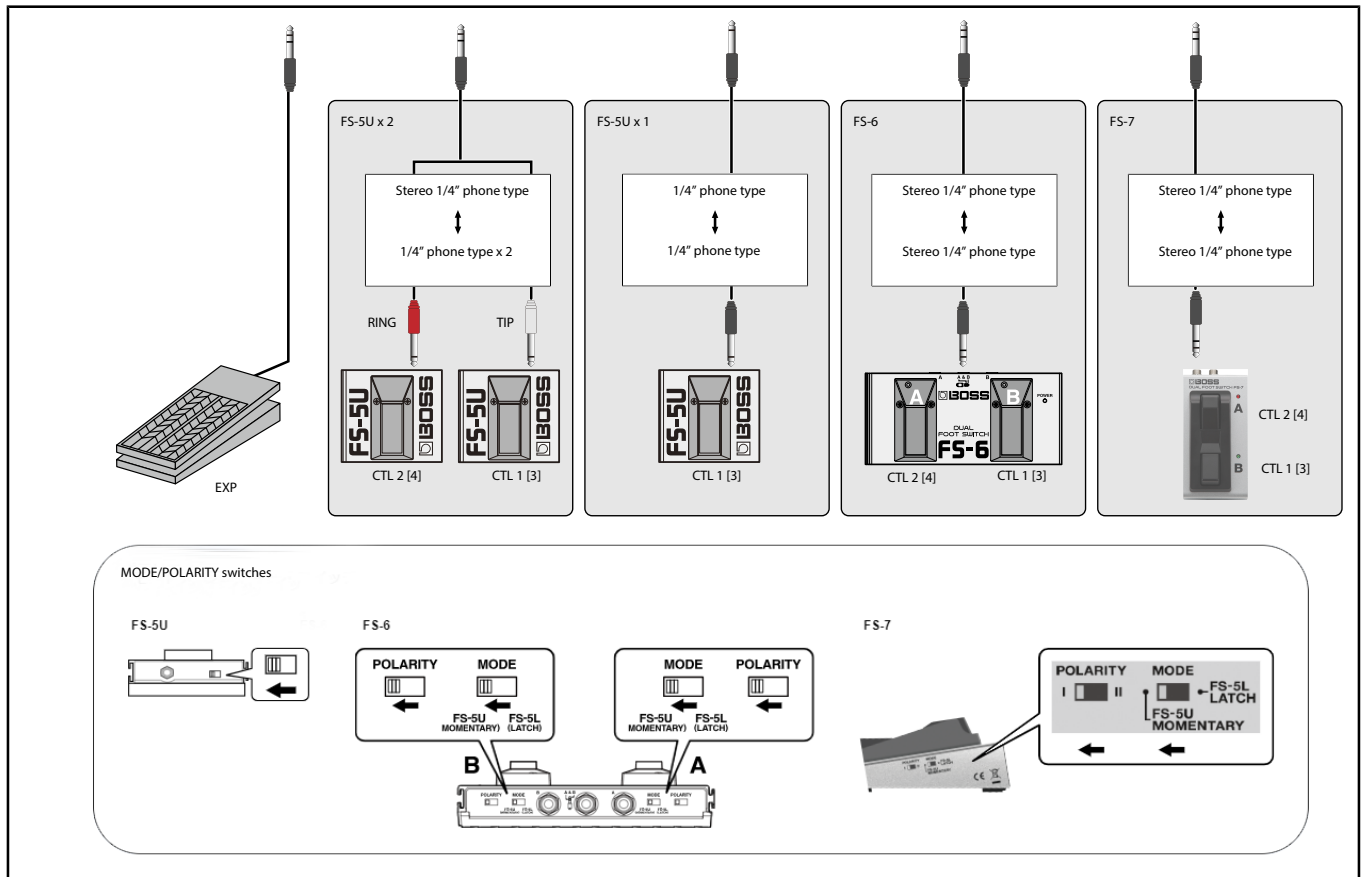
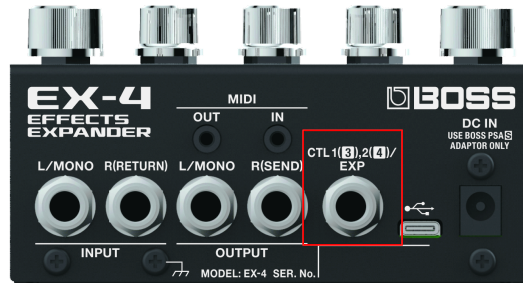
For details on the functions that can be assigned for the presets, refer to the "EX-4 Parameter Guide" (BOSS website).

To configure the detailed settings of the function you assigned without using the preset settings, select MANUAL for the ASSIGN MODE and edit the various values. For details on the functions that can be assigned, refer to the "EX-4 Parameter Guide" (BOSS website).

You can assign the parameters that are shown in the CHAIN screen or in the parameter edit screen. ➔ [Setting the edit screen parameters as the ASSIGN target \(p. 40\)](#)

Connecting external pedals

- * To prevent malfunction and equipment failure, always turn down the volume, and turn off all the devices before making any connections.
- * When you operate the expression pedal, please be careful not to get your fingers pinched between the movable part and the unit. In places where small children are present, make sure that an adult provides supervision and guidance.
- * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit. Expression pedals you can use (sold separately): FV-500L, FV-500H, EV-30, Roland EV-5



Configuring the overall settings of the EX-4 (MENU)

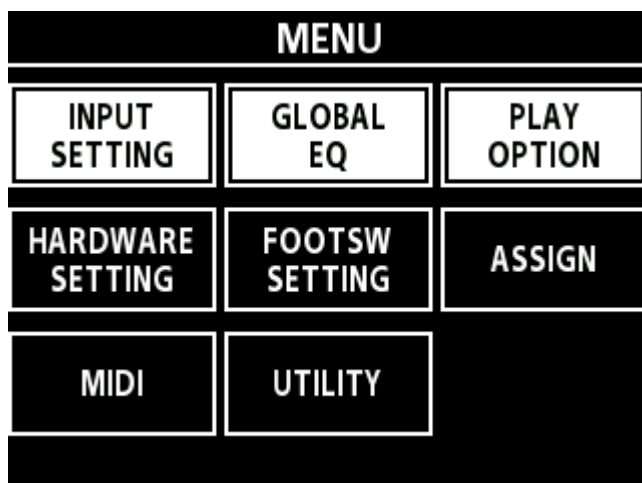
This section shows how to make the settings that are common to the entire EX-4 (system parameters).

This includes the various output and footswitch settings.

For details on the parameters, refer to the “EX-4 Parameter Guide” (BOSS website).

Basic menu operations

- 1 Press the [MENU/EXIT] button.



- 2 Turn the [SELECT] knob to move the cursor to the desired row.
- 3 Press one of the knobs [1]–[3] to select the menu that you want to edit.
A sub-menu may appear depending on the item you select. Select the parameter to set.
- 4 Set the values for the various parameters.
- 5 When you're finished with the settings, press the [MENU/EXIT] button to return to the play screen.

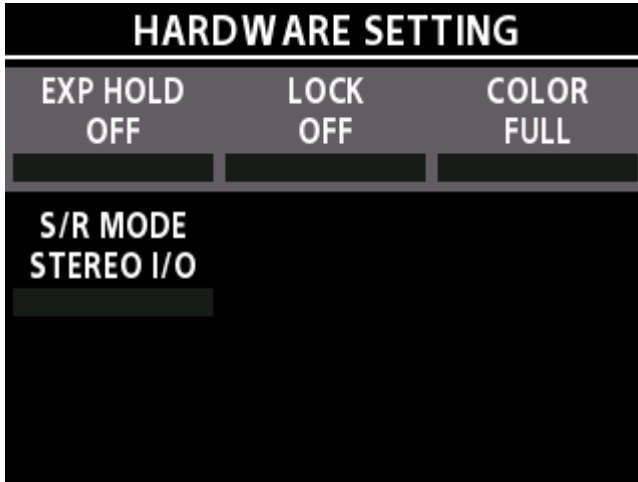
When selecting “HARDWARE SETTING” for these kinds of operations, the steps are listed in this document as shown below.

- 1 Select [MENU/EXIT] → “HARDWARE SETTING”.
- 2 Set the values for the various parameters.
- 3 Press the [MENU/EXIT] button to return to the play screen.

Setting the colors for the display and footswitches

Here's how to set the colors of the display and the indicators.
These parameters are common settings for all memories.

- 1 Select [MENU/EXIT] → "HARDWARE SETTING" → "COLOR".



- 2 Turn the [3] knob to select the color display setting.

Value	Explanation
FULL	The display and indicator colors change depending on the effect type.
RED	The screen displays in black and white. The indicators basically display in red. When a function is used for which the color change is necessary, the colors yellow, blue and white are used to make the state easy to distinguish.
BLUE	The screen displays in black and white. The indicators basically display in blue. When a function is used for which the color change is necessary, the colors red, yellow and white are used to make the state easy to distinguish.
GREEN	The screen displays in black and white. The indicators basically display in green. When a function is used for which the color change is necessary, the colors red, yellow, blue and white are used to make the state easy to distinguish.
YELLOW	The screen displays in black and white. The indicators basically display in yellow. When a function is used for which the color change is necessary, the colors red, blue and white are used to make the state easy to distinguish.
ORANGE	The screen displays in black and white. The indicators basically display in orange. When a function is used for which the color change is necessary, the colors red, yellow, blue and white are used to make the state easy to distinguish.
PINK	The screen displays in black and white. The indicators basically display in pink. When a function is used for which the color change is necessary, the colors red, yellow, blue and white are used to make the state easy to distinguish.
PURPLE	The screen displays in black and white. The indicators basically display in purple. When a function is used for which the color change is necessary, the colors red, yellow, blue and white are used to make the state easy to distinguish.
LIGHT BLUE	The screen displays in black and white. The indicators basically display in light blue. When a function is used for which the color change is necessary, the colors red, yellow, blue and white are used to make the state easy to distinguish.

Configuring the overall settings of the EX-4 (MENU)

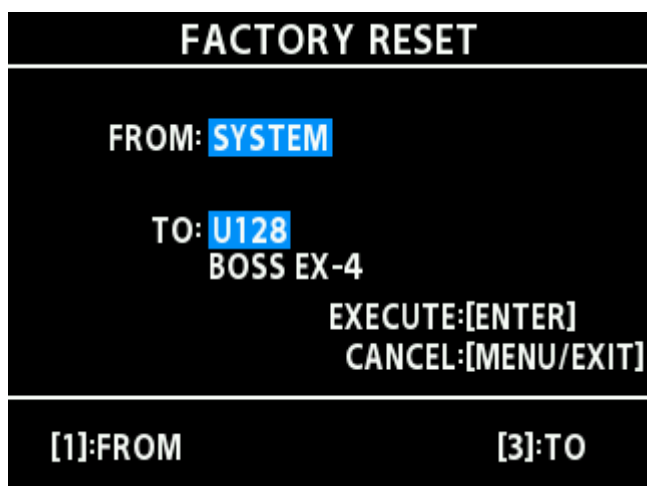
Value	Explanation
CYAN	The screen displays in black and white. The indicators basically display in cyan. When a function is used for which the color change is necessary, the colors red, yellow, blue and white are used to make the state easy to distinguish.
WHITE	The screen displays in black and white. The indicators basically display in white. When a function is used for which the color change is necessary, the colors red, yellow and blue are used to make the state easy to distinguish.

Restoring the factory settings (factory reset)

Restoring the EX-4 to its original factory settings is referred to as "factory reset". You can restore all of the settings to their factory-set values, and you can also specify certain items to be reset.

* When you execute a factory reset, the memories you saved and the settings you made are lost. Save the data you need to your computer, mobile device or other storage.

1 Select [MENU/EXIT] → "UTILITY" → "FACTORY RESET".



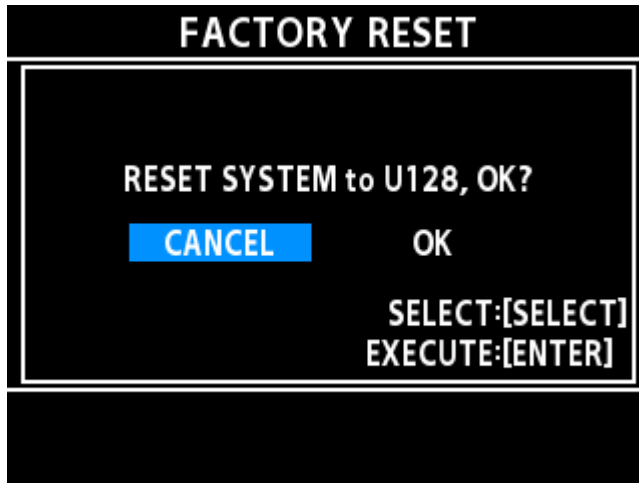
2 Specify the factory reset range by turning the [1] and [3] knobs to set "FROM" and "TO".

Knob	Parameter	Value	Explanation
[1]	FROM	SYSTEM	System parameter settings
[3]	TO	GEAR SUITE	GEAR SUITE parameter settings
		U001–U128	Settings for memory numbers U001–U128

3 Press the [TYPE/VALUE] knob.

A confirmation message appears.

To cancel the factory reset, press the [MENU/EXIT] button or use the knob to select "CANCEL" and press the [TYPE/VALUE] knob.



4 To execute the factory reset, use the [SELECT] knob to select "OK", and press the [TYPE/VALUE] knob.

Once the factory reset is complete, the unit returns to the play screen.

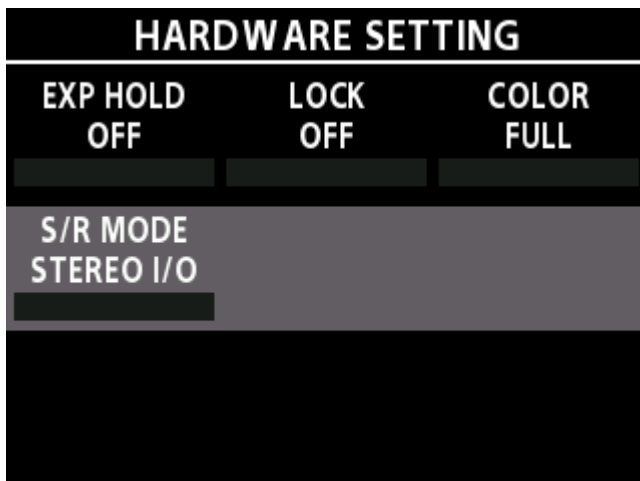
SEND/RETURN (S/R MODE)

You can use the INPUT R jack as a return, and the OUTPUT R jack as a send.

Enabling the SEND/RETURN feature

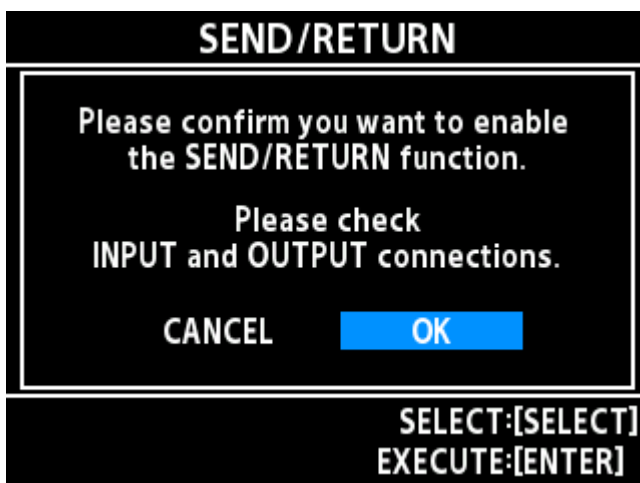
1 Select [MENU/EXIT] → “HARDWARE SETTING”.

2 Turn the [SELECT] knob to move the cursor to “S/R MODE”.



3 Turn the [1] knob.

4 Turn the [SELECT] knob to select “OK”, and press the [TYPE/VALUE] knob.

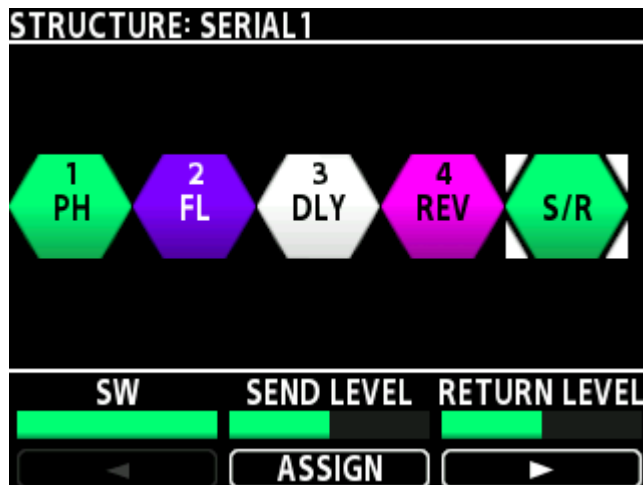


MEMO

When switching the S/R mode, disconnect the cables connected to the input R (return) and output R (send) jacks, and reconnect them to the correct connections so that no audio signal loops occur.

Changing the SEND/RETURN insertion point

When you use the steps in “[Enabling the SEND/RETURN feature \(p. 34\)](#)” to set the S/R mode to SEND/RETURN, the S/R block on the CHAIN screen is displayed.



You can use the same operation as shown in “[Changing \(exchanging\) the order of effects \(p. 20\)](#)” to change where the SEND/RETURN is connected in the effect chain.

MEMO

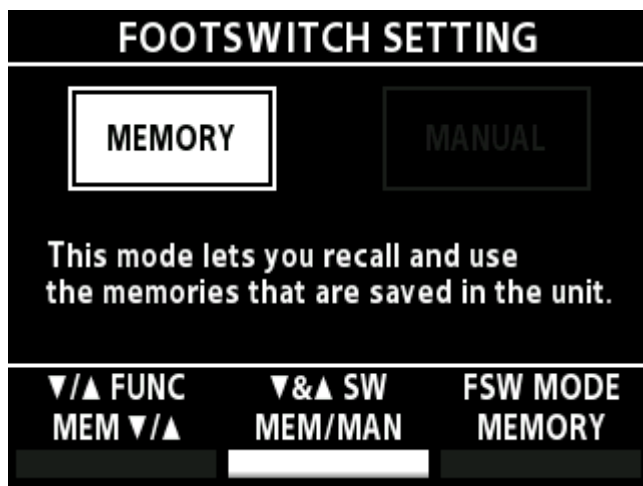
You can switch the SEND/RETURN block on/off by moving the cursor to S/R on the CHAIN screen and editing the SW parameter.

Useful functions

Disabling simultaneous presses of the footswitches on this unit

With the default settings, the FSW mode switches when you press the [▼/1] and [▲/2] switches at the same time. However, when you change the ▼ & ▲ parameter values on the FOOTSWITCH SETTING screen, you can disable the function for simultaneously pressing the footswitches.

- 1 Select [MENU/EXIT] → “FOOTSW SETTING”.



- 2 Turn the [2] knob to edit the “▼ & ▲ SW” parameter.

Value	Explanation
MEM/MAN	Each time you press the [▼/1] and [▲/2] switches at the same time, the unit toggles between memory mode and manual mode.
OFF	Pressing the [▼/1] and [▲/2] switches at the same time does not toggle between memory mode and manual mode.

Changing the footswitch functions on this unit when in memory mode

When MEMORY is selected on the FOOTSWITCH SETTING screen, you can change the functions of the footswitches on this unit by using the [1] knob to edit the ▼/▲ FUNC parameters.

Value	Explanation
MEM ▼/▲	Press the [▼/1] switch to switch to the previous memory, and press the [▲/2] switch to switch to the next memory.
FX1/FX2	Press the [▼/1] switch to turn the FX1 block on/off, and press the [▲/2] switch to turn the FX2 block on/off.
FX3/FX4	Press the [▼/1] switch to turn the FX3 block on/off, and press the [▲/2] switch to turn the FX4 block on/off.
BYPASS/MEM▲	Press the [▼/1] switch to switch ALL BYPASS on/off, and press the [▲/2] switch to switch to the next memory.

MEMO

When FSW MODE is MEMORY and the cursor is positioned on a memory in the play screen, you can press the [1] and [3] knobs to display the ▼/▲ FUNC parameter, and use the [1] knob to edit the value.

Changing the footswitch functions on this unit when in manual mode

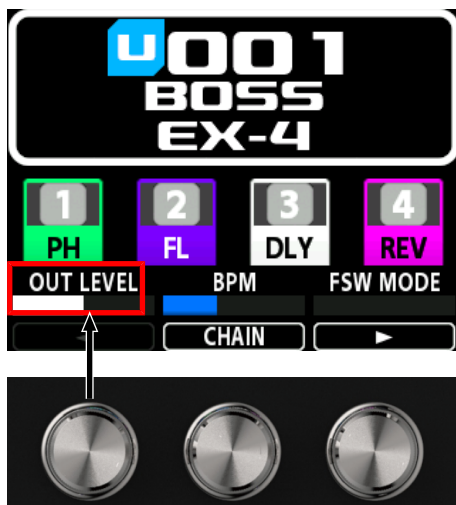
You can use the footswitches to switch the FX1 and FX2 blocks on/off with the default settings when FSW MODE is set to MANUAL. Refer to [Footswitch/expression pedal settings \(ASSIGN\)](#) (p. 25) to assign another function for the footswitch operations in manual mode.

Adjusting the output level of this unit

You can adjust the output level (volume) of this unit from the play screen.

- 1 Turn the [SELECT] knob to move the cursor to the memory number.

2 Turn the [1] knob to edit the OUT LEVEL value.



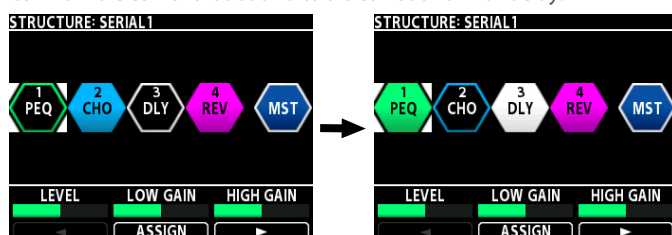
Switching memories without interrupting the sound

To prevent interruptions in the sound, observe the following points when you create the memories that are used before and after the switch.

- Avoid changing the position of blocks within the chain.
- Use multiple blocks when placing the effects (don't change the type within the same block).

Example:

Switch from a clean chorus sound to a clean sound with delay.



Use the same structure in both the memory before and after the switch.

Set the same type of each effect block before and after the switch.

MEMO

If the SEAM LEVEL for the master block (MST) is not set to zero, you can mix the direct sound while switching between memories. For details, refer to “EX-4 Parameter Guide” (BOSS website).

Making the effect sound (reverberations) carry over when you switch memories (carryover)

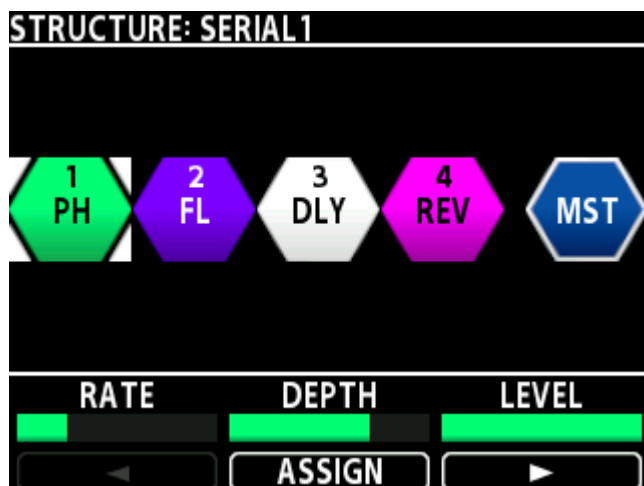
The function that preserves the tail of an effect (such as delay or reverb) even after the effect is switched off is called “carryover”.

The carryover sound changes according to the settings in the memory after switching. For a natural effect, we recommend that you use the same settings as shown below.

- On the preceding and on the following memories, configure the effect chain to use the same effects and arrangement. Set each effect type to be the same as well.
- Change the parameter values and the on/off settings for each effect.

1 With the play screen shown, press the [2] knob.

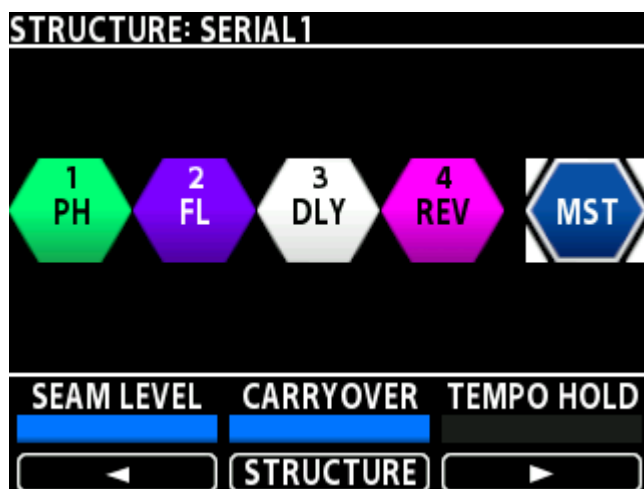
The effect chain screen is shown.



2 Turn the [SELECT] knob to select the MASTER block (MST).

3 Press the [3] knob.

The CARRYOVER parameter is shown.



4 Turn the [2] knob to set the CARRYOVER parameter to "ON".

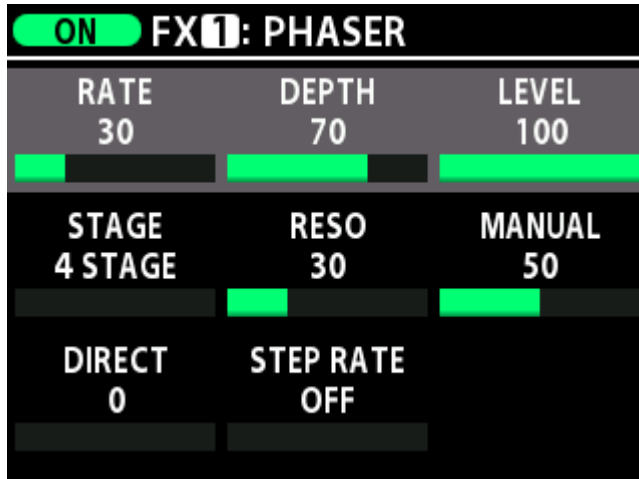
5 Save the memory.

→ Saving memories (WRITE) (p. 23)

Editing while viewing all parameters

- 1 Long-press one of the [FX1]–[FX4] buttons corresponding to the block you want to edit.

This shows the list of parameters for the block that you long-pressed.



- 2 Turn the [SELECT] knob to move the cursor to the parameter that you want to edit.
- 3 Turn the [1]–[3] knobs to change the values for the parameters.

MEMO

To list the parameters of an MST (master) or S/R (send/return) block, select the blocks in the chain screen and long-press the [TYPE/VALUE] knob.

Setting the edit screen parameters as the ASSIGN target

You can set the ASSIGN target from the parameters that are shown in the CHAIN screen or in the parameter edit screen.

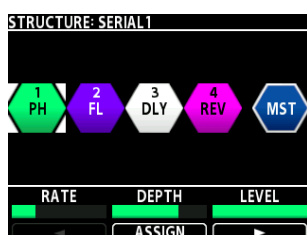
Also, you can directly select the parameters shown onscreen and specify them as targets, without going through the [MENU/EXIT] → “ASSIGN” screens.

MEMO

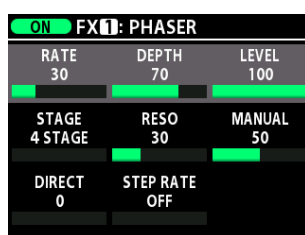
When all of the switches for ASSIGN 1–ASSIGN 8 are on, “ASSIGN IS FULL” is shown, and these settings are unavailable. To avoid this, turn off the switches for the ASSIGN numbers that you don’t mind being overwritten.

For the normal setting procedure (making settings from [MENU/EXIT] → “ASSIGN”), refer to “Assigning functions (p. 25)”.

- 1 From the play screen, either press the [2] knob to open the CHAIN screen or select an effect from the CHAIN screen. Long-press the [TYPE/VALUE] knob to open the parameter edit screen.



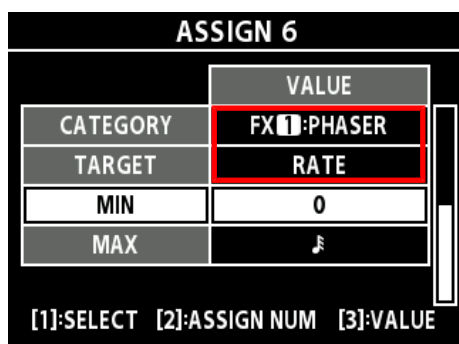
CHAIN screen



Parameter edit screen

- 2 Long-press the knob corresponding to the parameter that you want to set as the target.

In this example, you long-press the [1] knob on the parameter edit screen in step 1, so that RATE is specified for the ASSIGN target. With this operation, the ASSIGN screen on which the RATE is specified as the target is shown.



MEMO

The smallest ASSIGN number is selected for which the switch in [MENU/EXIT] → “ASSIGN” is OFF. In this example, ASSIGN 6 is selected.

- 3 Specify the ASSIGN setting.

For details on the functions that can be assigned, refer to the “EX-4 Parameter Guide” (BOSS website).

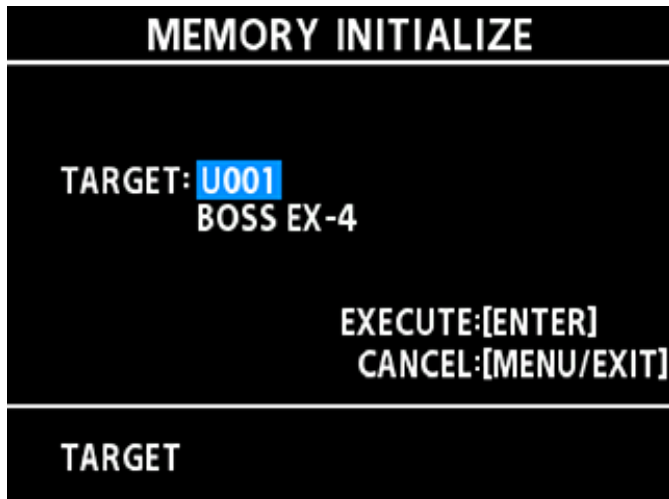
- 4 Press the [MENU/EXIT] button to return to the previous screen.

Initializing memories (MEMORY INITIALIZE)

Here's how to initialize the selected user memory. This is useful when you want to create a new sound from scratch.

- 1 From [MENU/EXIT], select "INITIALIZE".

The MEMORY INITIALIZE screen appears.



- 2 Turn the [1] knob to select the memory you want to initialize.
- 3 Press the [TYPE/VALUE] knob.
- 4 Turn the [SELECT] knob to move the cursor to "OK", and press the [TYPE/VALUE] knob.

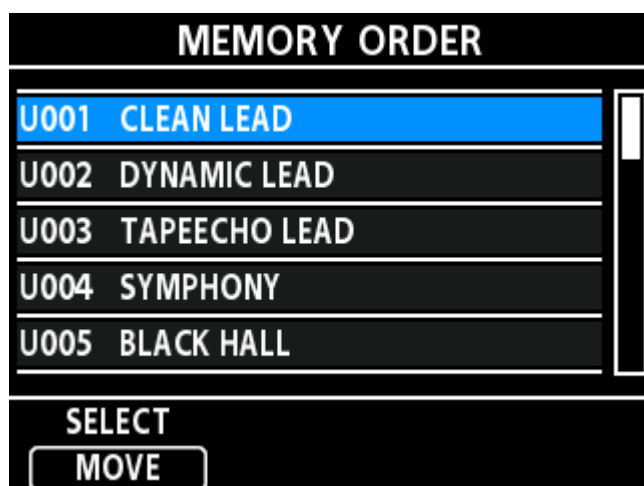
The message "EXECUTING..." is shown. When the operation is complete, the memory is initialized.

Changing the order of memories (MEMORY ORDER)

You can change the order of the user memories.

1 Select [MENU/EXIT] → “MEMORY ORDER”.

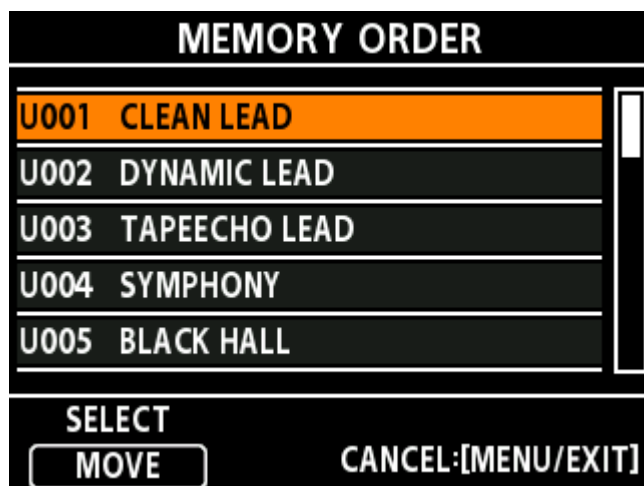
The MEMORY ORDER screen appears.



2 Turn the [1] knob to move the cursor to the memory you want to sort.

3 Press the [1] knob to select the memory.

The highlight color of the selected memory changes from blue to orange.

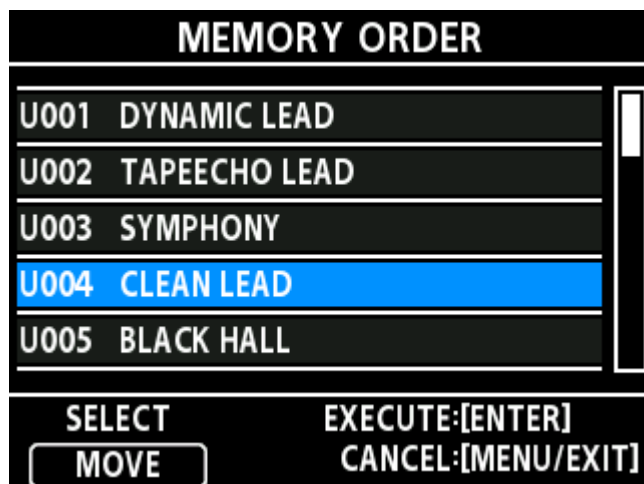


4 Turn the [1] knob to select where to move the memory.

5 Press the [1] knob to confirm where to move the memory.

The highlight color changes from orange to blue, and you can now move other memories.

At this stage, the sorting is not yet complete.



6 Repeat steps 2–5 to edit the memory order.

7 Press the [TYPE/VALUE] knob once you've decided on the sorting order.

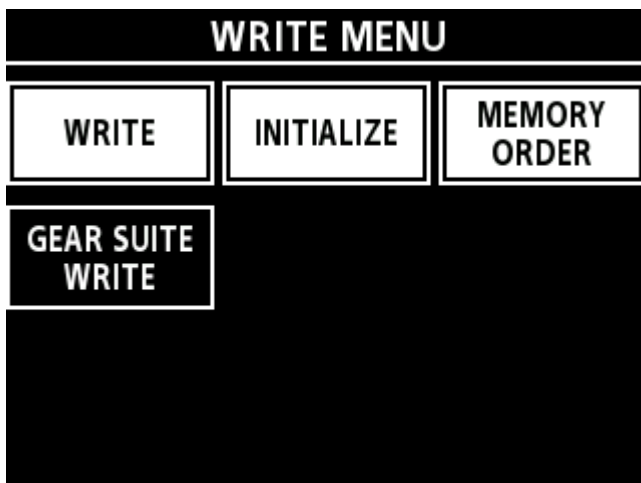
The message "EXECUTING..." is shown. When the operation is complete, the order of the memories is updated and saved.

Saving your favorite settings to GEAR SUITE

You can save the settings of your favorite effects as a GEAR SUITE (p. 11).

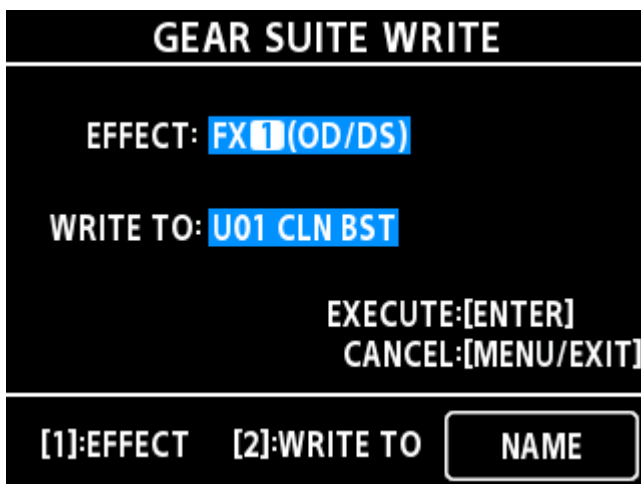
- 1 On the play screen, turn the [SELECT] knob to move the cursor to a memory.
- 2 Turn the [TYPE/VALUE] knob to switch to the memory containing your favorite effect settings.
- 3 Long-press the [MENU/EXIT] button.

The WRITE MENU screen appears.



- 4 Turn the [SELECT] knob to move the cursor to the row containing "GEAR SUITE WRITE", and press the [1] knob.

The GEAR SUITE WRITE screen appears.

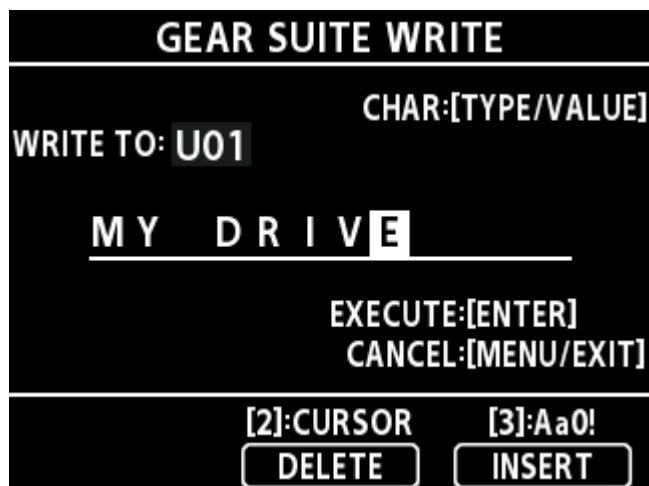


- 5 Turn the [1] knob to select the effect block you want to save.
- 6 Turn the [2] knob to select where to save the memory.

7 Press the [3] knob to display a screen where you can change the name of the GEAR SUITE.

Name the GEAR SUITE you want to save.

You can input up to 12 characters.



Operation	Function
Turn the [TYPE/VALUE] knob	Changes the character type (space, uppercase letters, lowercase letters, numbers, symbols)
Turn the [SELECT] knob or the [2] knob	Moves the cursor
Press the [2] knob	Deletes one character (DELETE)
Turn the [3] knob	Changes the character type (uppercase, lowercase, numbers, !)
Press the [3] knob	Inserts character before cursor (INSERT)

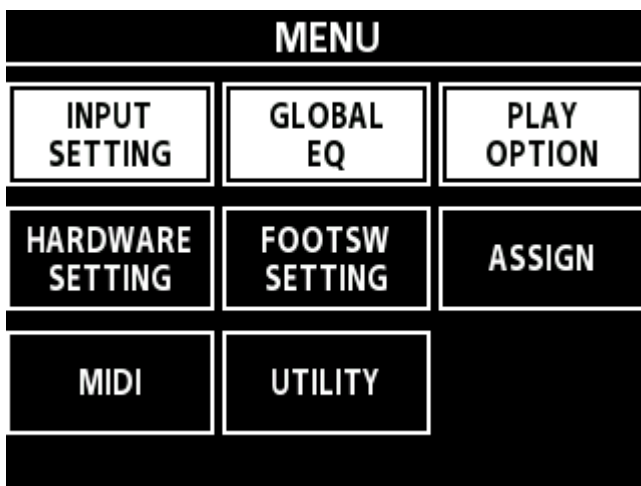
8 Press the [TYPE/VALUE] knob.

The settings are saved as a GEAR SUITE. The unit returns to the play screen when saving is finished.

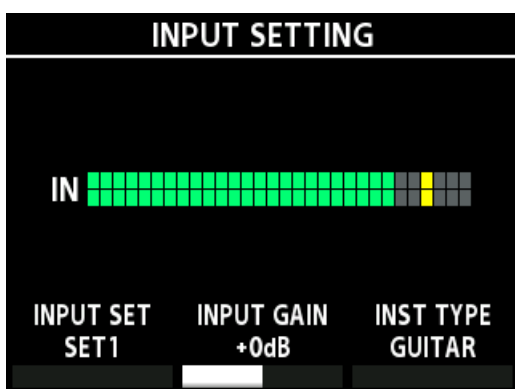
Setting the input to match settings or memories (INPUT SETTING)

This shows you how to set the type of instrument to connect (guitar/bass), and how to adjust the input level to match the output level of your instrument.

- 1 Select [MENU/EXIT] → “INPUT SETTING”.



- 2 Playing your guitar or bass strongly, adjust the input level with the [2] knob so that the yellow lights only come on briefly.



MEMO

- You can set which input set is used in the MASTER section of the memory.
- When using high-gain distortion on the EX-4 and the noise is noticeable when you're not playing, this might be improved by adjusting the INPUT GAIN to a higher value.

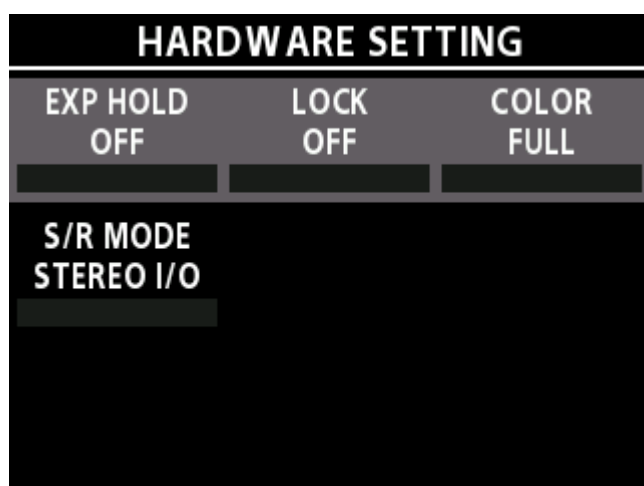
- 3 Press the [MENU/EXIT] button to return to the play screen.

Prohibiting knob operations on the play screen (LOCK)

When the lock function is turned on, the knobs cannot be operated while the play screen is displayed. This function prevents the knobs from being accidentally operated while you are performing.

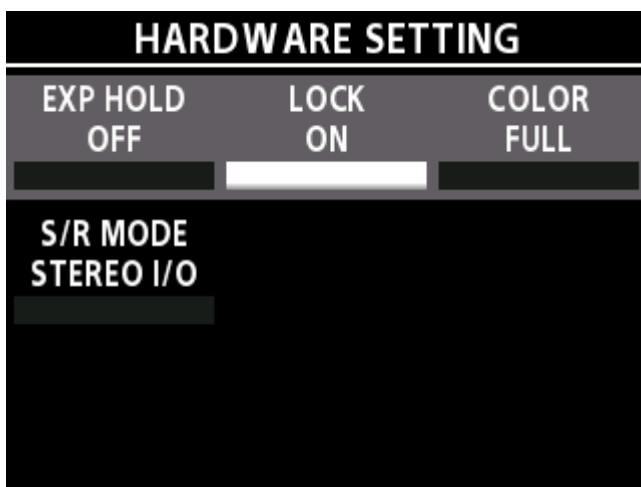


- 1 Select [MENU/EXIT] → “HARDWARE SETTING”.



- 2 Turn the [SELECT] knob to move the cursor to the row containing “LOCK”.

3 Turn knob [2] to set LOCK to ON.



4 Press the [MENU/EXIT] button to return to the play screen.

MEMO

On the play screen, long-press the [GEAR SUITE] button to toggle the lock on/off.



Transferring data from the EX-4 to a computer (MIDI BULK DUMP)

Here’s how to transfer the system, GEAR SUITE data and user memory settings (collectively called “bulk data”) to a computer. This operation is called a “bulk dump”.

Do this when you need to back up the settings of the EX-4 to your computer.

MEMO

- This product uses the standard USB driver provided by the operating system.
- When connecting an iPad or iPhone, use a commercially available USB Type-C® type adaptor or cable.
- A DAW or MIDI sequencer that can record SysEx (system exclusive) data is required.

- 1 **Connect your computer to the EX-4 with a USB cable.**
- 2 **On your DAW or other MIDI sequencer, create a MIDI track that can record the MIDI output of the EX-4.**
- 3 **Select [MENU/EXIT] → “MIDI” → “MIDI BULK DUMP”.**

The MIDI BULK DUMP screen appears.



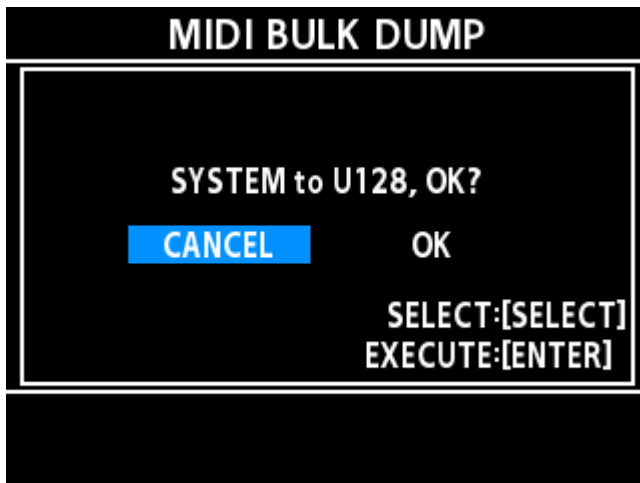
- 4 **Specify the range of data to be transferred by turning the [1] and [3] knobs to set “FROM” and “TO”.**

Knob	Parameter	Value	Explanation
[1]	FROM	SYSTEM	System parameter settings
[3]	TO	GEAR SUITE	GEAR SUITE parameter settings
		U001–U128	Settings for memory numbers U001–U128

5 Start recording on your DAW and press the [TYPE/VALUE] knob on the EX-4.

A confirmation message appears.

To cancel the bulk dump, press the [MENU/EXIT] button.



6 Turn the [SELECT] knob to select "OK", and press the [TYPE/VALUE] knob.

The bulk data transfer begins.

When the bulk dump is finished, the MIDI MENU screen is shown.

7 Stop recording on your DAW.

MEMO

By transmitting the data on your DAW that you've recorded and saved on your computer to the EX-4 (MIDI BULK LOAD), you can restore the system, GEAR SUITE and user memory settings.

→ "Receiving bulk data saved on your computer (MIDI BULK LOAD) (p. 51)"

Receiving bulk data saved on your computer (MIDI BULK LOAD)

By transmitting the bulk data from your DAW or MIDI sequencer that you backed up using [MIDI BULK DUMP \(p. 49\)](#) and receiving the data on the EX-4, you can restore the system, GEAR SUITE and user memory settings.

1 Transmit the bulk data from your DAW or MIDI sequencer.

See the owner's manual of your DAW or MIDI sequencer for the operations required on your DAW or MIDI sequencer.

MEMO

"DATA RECEIVING..." is shown on the display while data is being received.

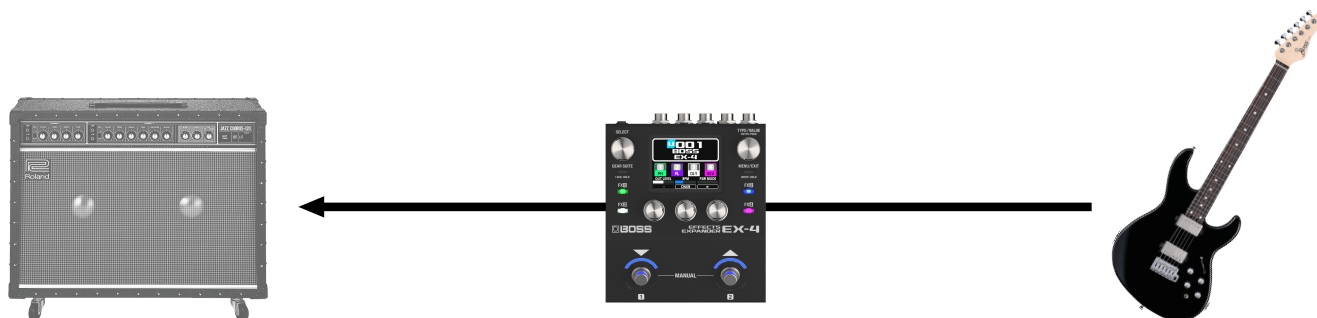
Never turn off the power while data is being received.

If "MIDI BUFFER FULL" is shown, check the connection and try slowing down the tempo of the MIDI device (the DAW or MIDI sequencer) that's transmitting the data.

Connection examples

Using this product alone as an effect unit

- When using this product alone with simple settings, you can enjoy a wide variety of sounds.

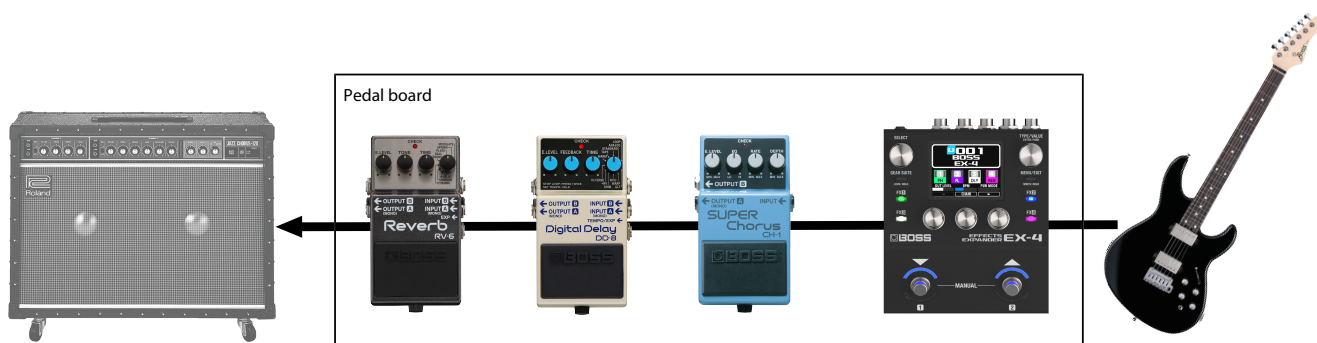


Inserting into a pedal board chain

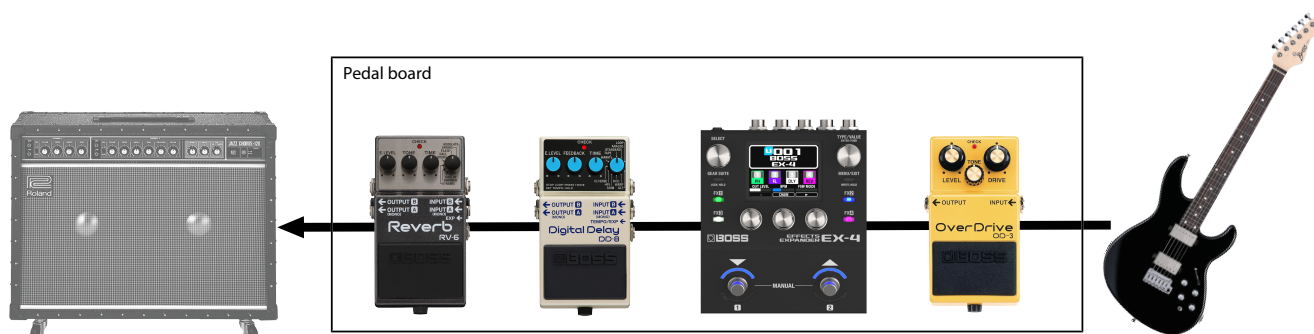
- When placed at the end of the pedal board chain (outputting from this product to an amp)
 - Use this connection method when using the delay or reverb effects of this unit.



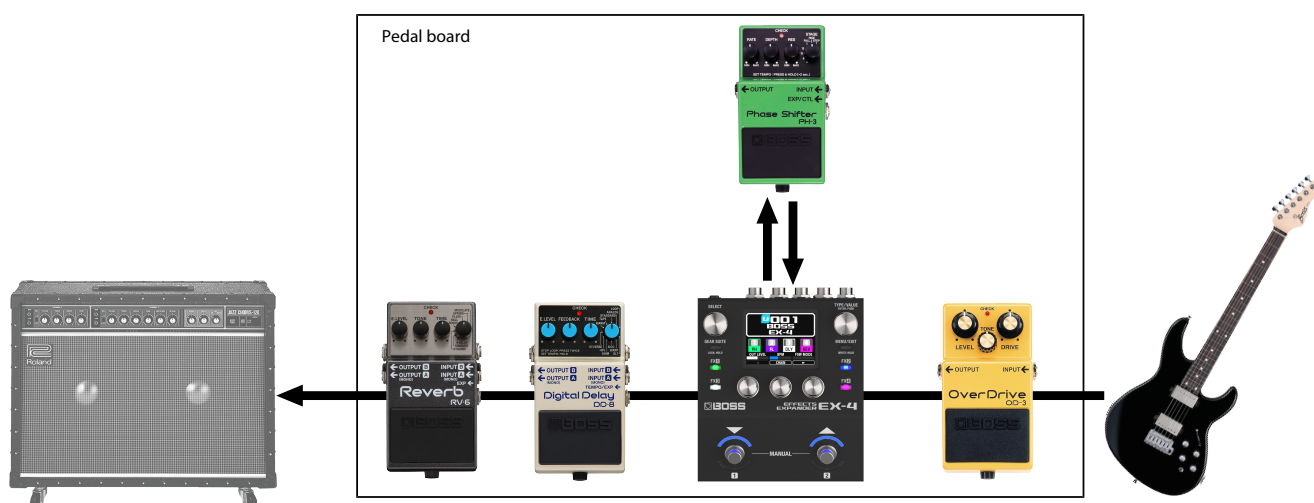
- When placed at the beginning of the pedal board chain (plugging your guitar or bass guitar directly into this product)
 - It is most effective to plug the guitar directly into this unit when you are using distortion effects, or pitch-detecting effects such as the pitch shifter or harmonizer of this product.



- When placed in the middle of the pedal board chain (inputting the output signals from other effect units into this product)
 - Use this connection method when you want to use a distortion effect unit you like before this product in the signal chain, or when you want to use your favorite delay or reverb after this product in the signal chain.



- Using the SEND/RETURN jacks
 - Turn the SEND/RETURN function on.
 - ["Enabling the SEND/RETURN feature \(p. 34\)"](#)
 - This lets you insert an external effect unit that's connected to this product into the effect chain.



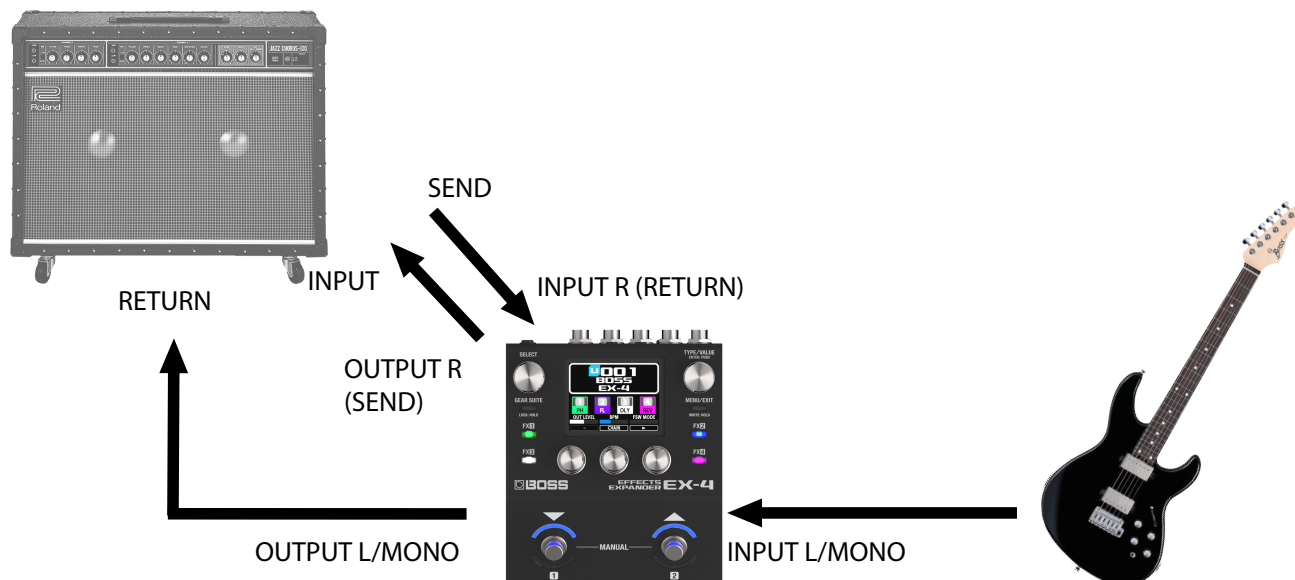
4CM (Four cable method)

By using four cables and connecting them as shown in the illustration below, you can place the amp anywhere you like in the effect chain of this product, greatly widening your sound creation options.

Connection examples

The effect placement in the signal chain can be set differently for each memory.

- You must turn the SEND/RETURN function on to use 4CM.
→ [“Enabling the SEND/RETURN feature \(p. 34\)”](#)
- The S/R block on the CHAIN screen acts as the guitar preamp, letting you place effects freely within the signal chain.
→ [“Changing the SEND/RETURN insertion point \(p. 35\)”](#)
- 4CM cannot be used on guitar amps that do not support SEND/RETURN.

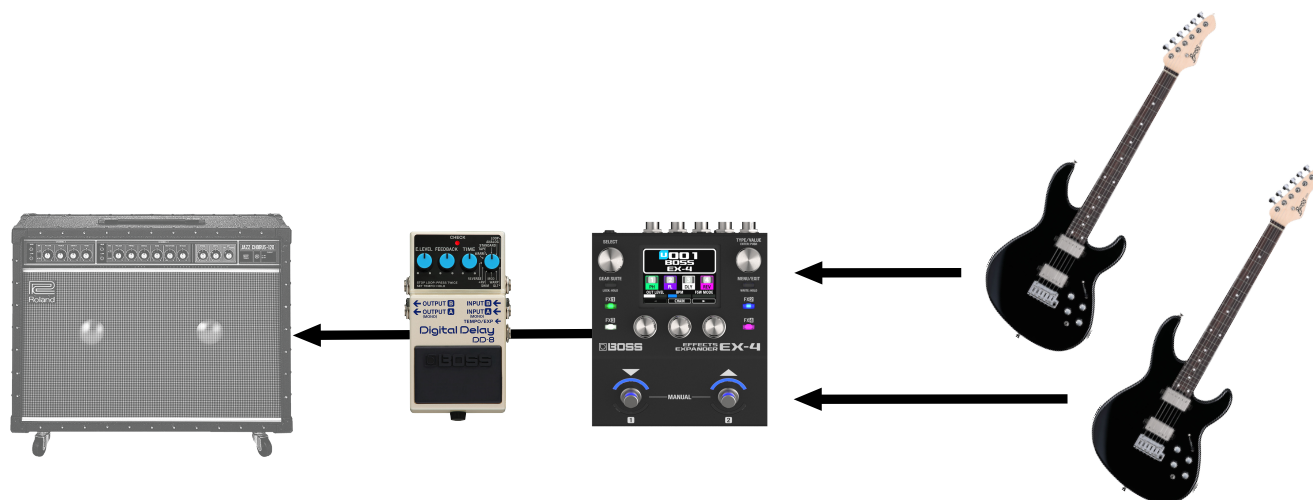


Connecting two guitars

You can connect two guitars/bass guitars to this unit, playing them alternately or at the same time.

Set the STRUCTURE in the effect chain to "PARALLEL3".

→ [“Changing the serial/parallel structure of the effects \(STRUCTURE\) \(p. 19\)”](#)

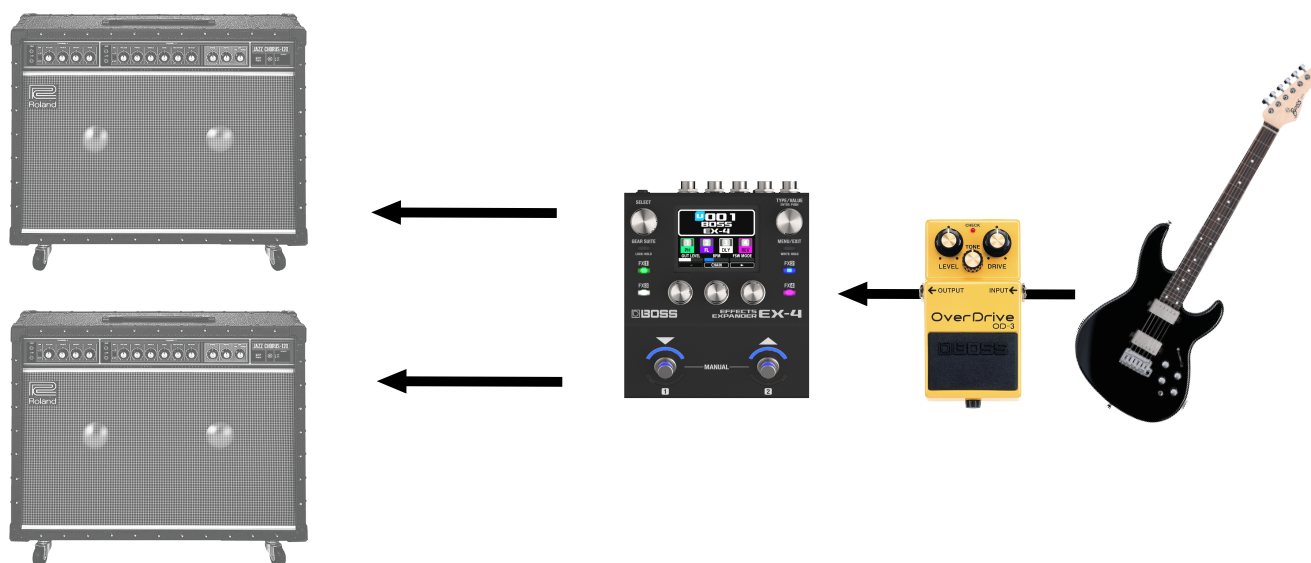


Using two amps

This configuration lets you create stereo reverb and chorus sounds.

Set the STRUCTURE in the effect chain to "PARALLEL2".

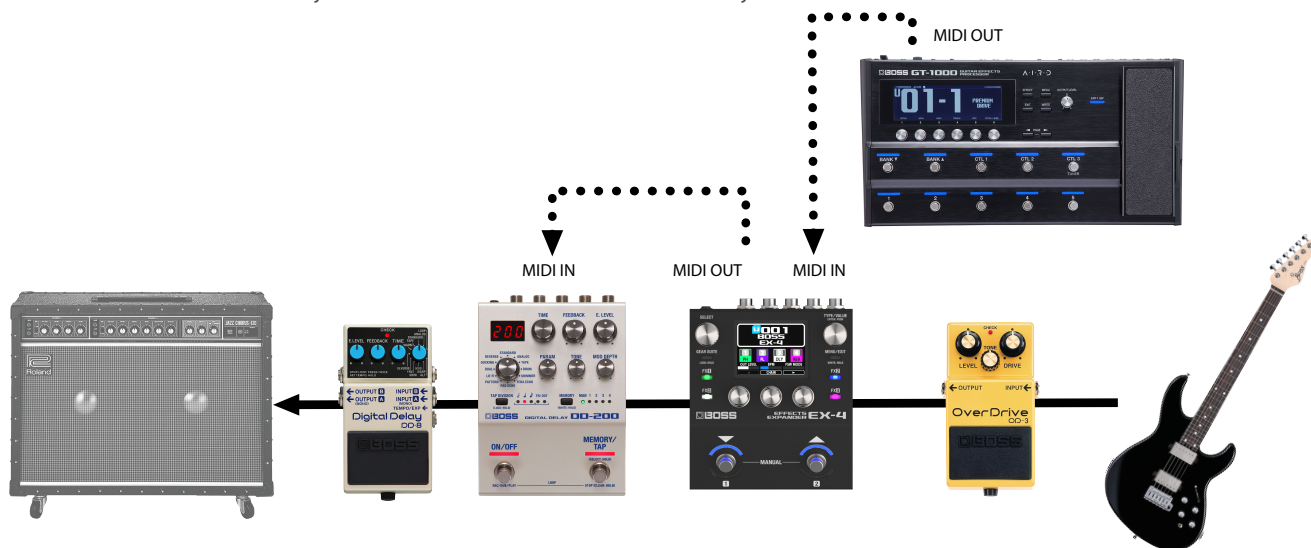
→ “Changing the serial/parallel structure of the effects (STRUCTURE) (p. 19)”



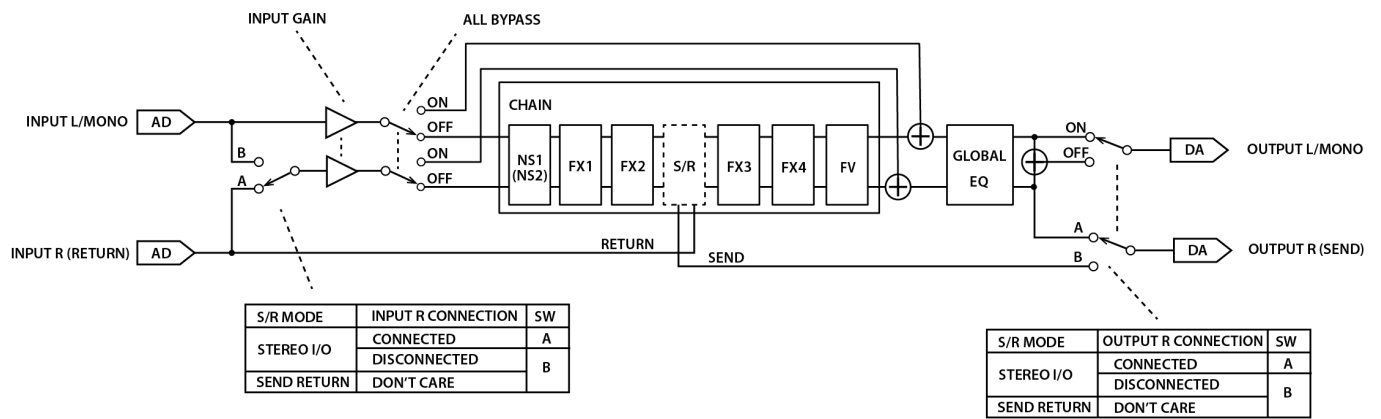
System configurations with MIDI connections

By connecting the MIDI OUT jack of this unit to the MIDI IN jack of a MIDI-compatible effect unit, you can recall memories and synchronize to the tempo.

You can also connect the MIDI OUT jack of an external MIDI device to the MIDI IN jack of this unit to control this unit from an external device.



Signal flow



Main specifications

Sample rate	48 kHz
AD Conversion	24 bits + AF method * AF method (Adaptive Focus method) is a proprietary method from Roland & BOSS that vastly improves the signal-to-noise (SN) ratio of the AD and DA converters.
DA Conversion	32 bits
Processing	32-bit floating point
Effects	120 types
Maximum Number of Effects	4(FX1-4) + 6(DIVIDER+MIXER, SEND RETURN, FOOT VOLUME, NOISE SUPPRESSOR1, NOISE SUPPRESSOR2, GLOBAL EQ)
Memories	128 (User) + 128 (Preset)
Nominal Input Level	INPUT L/MONO jack, INPUT R(RETURN) jack: -10 dBu
Maximum Input Level	INPUT L/MONO jack, INPUT R(RETURN) jack: +7 dBu
Input Impedance	INPUT L/MONO jack, INPUT R(RETURN) jack: 1 M ohm
Nominal Output Level	OUTPUT L/MONO jack, OUTPUT R(SEND) jack: -10 dBu
Output Impedance	OUTPUT L/MONO jack, OUTPUT R(SEND) jack: 1 k ohm
Recommended Load Impedance	OUTPUT L/MONO jack, OUTPUT R(SEND) jack: 10 k ohms or greater
Controls	[▼/1] switch, [▲/2] switch, [MENU/EXIT] button, [GEAR SUITE] button, [FX1] button, [FX2] button, [FX3] button, [FX4] button, [SELECT] knob, [TYPE/VALUE] knob, [1]-[3] knobs
Display	Color Graphic LCD (320 x 240 dots)
Connectors	INPUT L/MONO jack, INPUT R(RETURN) jack, OUTPUT L/MONO jack, OUTPUT R(SEND) jack, : 1/4-inch phone type MIDI IN jack, MIDI OUT jack : Miniature phone type CTL1([3]),2([4])/EXP jack: 1/4-inch TRS phone type USB port: USB Type-C® DC IN jack
Power Supply	AC adaptor (PSA-S series)
Current Draw	300 mA
Dimensions	(without rubber feet) 117 (W) x 138 (D) x 63 (H) mm 4-5/8 (W) x 5-7/16 (D) x 2-1/2 (H) inches (including rubber feet) 117 (W) x 138 (D) x 65 (H) mm 4-5/8 (W) x 5-7/16 (D) x 2-9/16 (H) inches
Weight	800g 1 lb 13 oz
Accessories	STARTUP GUIDE Leaflet "Read Me First" AC adaptor (PSA-S series) Rubber foot x 4
Options (sold separately)	Footswitch: FS-5U, FS-5L, FS-6, FS-7 Expression Pedal: FV-500L, FV-500H, EV-30, Roland EV-5 TRS/MIDI connecting cable: BMIDI-5-35, BMIDI-1-35, BMIDI-2-35, BCC-1-3535, BCC-2-3535

* 0 dBu = 0.775 Vrms

* This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.

EX-4
Reference Manual
01
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