ZOOM®

L-12
LiveTrak

Operation Manual

Usage and Safety Precautions

Safety Precautions

In this operation manual, symbols are used to highlight warnings and cautions that you must read to prevent accidents. The meanings of these symbols are as follows.

| ⚠️ **Warning** | Something that could cause serious injury or death |
| ⚠️ **Caution** | Something that could cause injury or damage to the equipment |

Other symbols used

| ❗ | An action that is mandatory |
| 🚫 | An action that is prohibited |

⚠️ Warning

Operation using an AC adapter

❗ Never use any AC adapter other than a ZOOM AD-19.

🚫 Do not do anything that could exceed the ratings of outlets and other electrical wiring equipment.
Before using the equipment in a foreign country or other region where the electrical voltage differs, always consult with a shop that carries ZOOM products and use the appropriate AC adapter.

Alterations

🚫 Do not open the case or modify the product.

⚠️ Caution

Product handling

❗ Do not drop, bump or apply excessive force to the unit.

❗ Be careful not to allow foreign objects or liquids to enter the unit.

Operating environment

🚫 Do not use in extremely high or low temperatures.

🚫 Do not use near heaters, stoves and other heat sources.

🚫 Do not use in very high humidity or where it could be splashed by water.

🚫 Do not use in places with frequent vibrations.

🚫 Do not use in places with much dust or sand.

AC adapter handling

❗ When disconnecting the power plug from an outlet, always pull on the plug itself.

❗ Disconnect the power plug from the outlet when the unit will not be used for a long time and whenever there is lightning.

Connection cables and input/output jacks

❗ Always turn the power OFF for all equipment before connecting any cables.

❗ Always disconnect all connection cables and the AC adapter before moving the unit.

Volume

🚫 Do not use at a loud volume for a long time.

Usage Precautions

Interference with other electrical equipment

In consideration of safety, the L-12 has been designed to minimize its emission of electromagnetic waves and to suppress interference from external electromagnetic waves. However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves could result in interference if placed nearby. If this occurs, place the L-12 and the other device farther apart.
With any type of electronic device that uses digital control, including the L-12, electromagnetic interference could cause malfunction, corrupt or destroy data and result in other unexpected trouble. Always use caution.

Cleaning

Use a soft cloth to clean the exterior of the unit if it becomes dirty. If necessary, use a damp cloth that has been wrung out well to wipe it. Never use abrasive cleansers, wax or solvents such as alcohol, benzene or paint thinner.

Breakdown and malfunction

If the unit becomes broken or malfunctions, immediately disconnect the AC adapter, turn the power off and disconnect other cables. Contact the store where you bought the unit or ZOOM service with the following information: product model, serial number and specific symptoms of breakdown or malfunction, along with your name, address and telephone number.

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Note about the Auto Power Off function

The power will automatically turn off if unused for 10 hours. If you want the power to stay on always, refer to "Disabling the automatic power saving function" on page P. 88.

FCC regulation warning (for U.S.A.)

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

For EU Countries

CE Declaration of Conformity

Introduction

Thank you very much for purchasing a ZOOM LiveTrak **L-12** (**L-12**). The **L-12** has the following features.

12-channel digital mixer & multitrack recorder

The **L-12** combines a digital mixer with 12 total input channels (8 mono and 2 stereo), a multitrack recorder that can simultaneously record up to 14 tracks, and a 14-in/4-out USB audio interface. Compact and lightweight, this digital mixer is easy to transport and can even be used with PA systems for live performances in rehearsal studios, cafés and other small venues.

High-quality mic preamps

The **L-12** has high-quality mic preamps built-in for 8 channels. The high-quality analog inputs, which can provide +48 V phantom power, have a –128 dBu EIN rating and +60 dB maximum input gain. In addition, channels 1 and 2 also support Hi-Z input, while channels 3 to 8 have PAD functions (26 dB attenuation), enabling them to accept high levels of input.

5 MONITOR OUT channels

In addition to the MASTER OUT, the **L-12** also has 5 MONITOR OUT channels. The MONITOR OUT mixes can be set separately for each output. Since these support headphone output, headphones are all that are needed to send different mixes to each performer.

Digital mixer that can be operated intuitively

Opening menus is not necessary with the **L-12**. Every mixer parameter can be controlled with knobs and keys just like an analog mixer. Each channel has a 3-band EQ, and the mono channels have compressor functions. The mixer also includes high-quality send effects. In addition, up to 9 mixer status scenes can be saved in the unit.

Recorder can simultaneously record 14 tracks and play 12 tracks

The **L-12** can simultaneously record every channel and the master fader stereo signal output for a total of 14 tracks. Since the recorded data is saved in 16/24-bit, 44.1/48/96 kHz WAV format, the files can easily be copied to a computer and used in a DAW. In addition, overdubbing and punching in/out can be done as expected with a multitrack recorder.

14-in/4-out USB audio interface

The **L-12** can be used as a 14-in/4-out USB audio interface. The signals from each input and the master fader output can be recorded in a DAW. In addition, signals output from a computer can also be assigned to a stereo channel.

Class compliant mode, which enables connection with iOS devices, is also supported.

Contents

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Contents

Names and functions of parts

Top

Input channel section
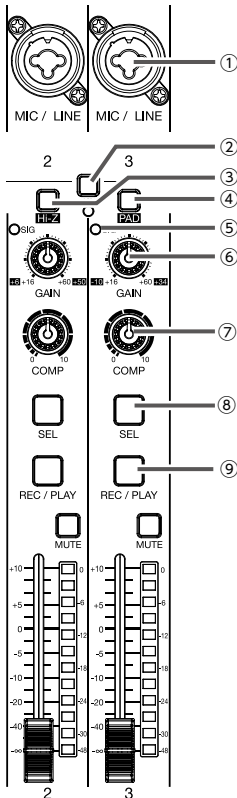
① **MIC/LINE input jack**

These input jacks have built-in mic preamps. Connect mics, keyboards and guitars to them. These can be used with both XLR and 1/4-inch (balanced or unbalanced) phone plugs.

② **48V switch/indicator**

This turns +48 V phantom power on or off. Turn this on (▬) to supply phantom power to MIC/LINE input jacks 1–4 (or 5–8).
The indicator lights when the switch is on.

③ **Hi-Z switch**

Use to switch the input impedance of MIC/LINE input jack 1 (or 2).
Turn it on (▬) when connecting a guitar or bass guitar.

④ **PAD switch**

This attenuates (reduces) the input signal of the equipment connected to the MIC/LINE input jack by 26 dB.
Turn this on (▬) when connecting line level equipment.

⑤ **SIG indicator**

This indicator shows the signal level after adjustment by the GAIN knob.
The indicator color changes according to the signal level.
Lit red: −3 dB
Lit green: −48 to −3 dB

⑥ **GAIN knob**

Use to adjust the input gain of the mic preamp.
The range of adjustment depends on the on/off status of the MIC/LINE input jack switch (Hi-Z on channels 1–2 or PAD on channels 3–8).

Jack	Adjustment range	
MIC/LINE input jack 1–2 (XLR)	+16 – +60 dB	
MIC/LINE input jack 1–2 (TRS)	Hi-Z off	+16 – +60 dB
	Hi-Z on (TS)	+6 – +50 dB
MIC/LINE input jack 3–8	PAD off	+16 – +60 dB
	PAD on	-10 – +34 dB

⑦ **COMP knob**

Use to adjust the amount of compression.

⑧ **SEL button**

Use to select a channel for parameter adjustment in the channel strip section.
Channels with lit SEL buttons are affected by channel strip section adjustments.

⑨ **REC/PLAY button**

Use this button to switch between recording input signals to the SD card and playing back an already recorded file from the SD card.

Status	Explanation
Lit red	Input signals will be recorded to the SD card after passing through the compressor.
Lit green	An already recorded file will be played back. Playback signals are input before the equalizer. In this state, signals from input jacks are disabled.
Unlit	Files will neither be recorded nor played back.

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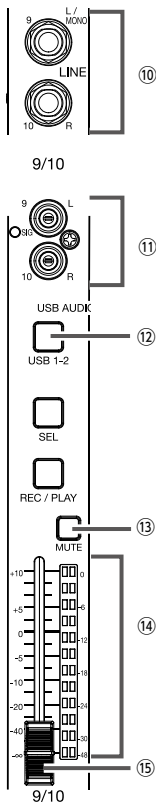
⑩ LINE input jacks (TS)
Use these input jacks to connect line level equipment. For example, connect keyboards or audio devices.
These can be used with 1/4-inch (unbalanced) phone plugs.

NOTE
If only the left LINE input jack (TS) channel is connected, it will be handled as a mono channel.

⑪ LINE input jacks (RCA)
Use these input jacks to connect line level equipment. For example, connect audio devices.
These can be used with RCA pin connectors.

NOTE
If both the RCA and TS LINE input jacks are connected, the TS input jacks will be used.

⑫ USB button
This switches the signals input to channels 9/10 (or 11/12).
Lit: audio return signal output from the computer
Unlit: LINE input jacks

NOTE
Connect the **L-12** to a computer as an audio interface. (→ P.74)

⑬ MUTE button
This mutes or unmutes signals sent to the master fader.
To mute the channel, press this button to light it.

HINT
This has no effect on recording to the SD card.

⑭ Level meter
This shows the signal level after adjustment by the channel fader.
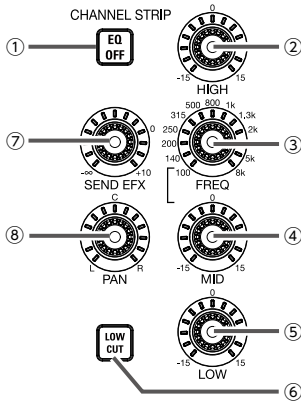Ranges shown: -48 dB – 0 dB

NOTE
If the actual channel fader position differs from the channel fader position recalled using the scene function, for example, the level meter will show the recalled fader position.

⑮ Channel fader
This adjusts the channel signal level in a range from −∞ to +10 dB.

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CHANNEL STRIP section

① **EQ OFF button**
When this button is lit, HIGH, MID, LOW and LOW CUT are bypassed.

② **HIGH knob**
This adjusts the boost/cut of high-frequency equalization.
Type: shelving
Gain range: −15 db − +15 dB
Frequency: 10 kHz

③ **MID FREQ knob**
This adjusts the central frequency of the mid frequency equalization.
Frequency (in Hz): 100, 140, 200, 250, 315, 500, 800, 1k, 1.3k, 2k, 3k, 5k or 8k

④ **MID knob**
This adjusts the boost/cut of mid-frequency equalization.
Type: peaking
Gain range: −15 db − +15 dB
Frequency: set by MID FREQ knob

⑤ **LOW knob**
This adjusts the boost/cut of low-frequency equalization.
Type: shelving
Gain range: −15 db − +15 dB
Frequency: 100 Hz

⑥ **LOW CUT button**
This turns on/off the high-pass filter, which cuts low frequencies.
When ON, signals below 75 Hz are attenuated 12 dB/octave.
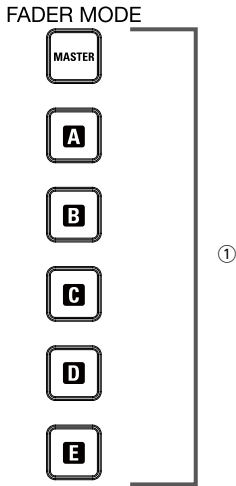
⑦ **SEND EFX knob**
The amount that can be sent to the SEND EFX bus can be set from −∞ to +10 dB.

⑧ **PAN knob**
Use to adjust the channel volume balance and stereo position sent to the master bus.
On a stereo input channel, this adjusts the volume balance between the left and right channels.

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FADER MODE section

FADER MODE

MASTER

A

B

C

D

E

①

① **MASTER and A–E buttons**

These switch between the mixes output from the MASTER OUT and MONITOR OUT A–E jacks.

MASTER button: Use to show and adjust the mix output from the MASTER OUT jacks.
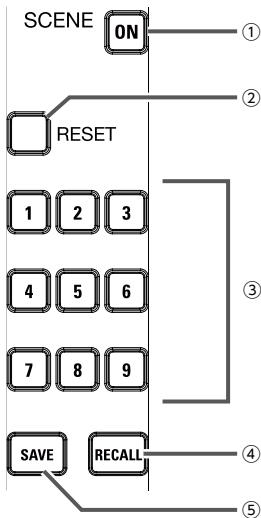
A–E buttons: Use to show and adjust the mixes output from the MONITOR OUT A–E jacks.

NOTE

The parameters that can have separate settings for the MASTER and A–E mixes are as follows.

- Fader positions (each channel)

SCENE section

SCENE

① **ON button**

Press this button, lighting it, to use the scene function

② **RESET button**

Press this button to reset the current mixer settings to the factory defaults.

③ **1–9 buttons**

Use these buttons to select the scene to use to save the current mixer state and to load saved scenes.

If the current mixer settings match the settings of a scene, the corresponding number button will light.

This unit can save up to 9 scenes.

④ **RECALL button**

Use this button when loading scenes saved to buttons 1–9.

When this button is pressed, buttons 1–9 will blink if they have saved scenes and be unlit if they do not. To recall a saved scene, press a blinking button between 1 and 9. To cancel recalling a scene, press the RECALL button again.

⑤ **SAVE button**

Use this button when saving the current mixer settings to a scene.

When this button is pressed, buttons 1–9 will blink if they have saved scenes and be unlit if they do not. To save a scene, press a button between 1 and 9 to save it to that number. To cancel saving a scene, press the SAVE button again.

Send effect (SEND EFX) section

SEND EFX

Hall 1	Spring
Hall 2	Delay
Room 1	Analog
Room 2	P-P Dly
Plate	Vocal 1
Church	Vocal 2
DrumAmb	Vocal 3
GateRev	Vocal 4

①

②

TYPE

MIN ⸻ MAX

TONE / TIME

③

MIN ⸻ MAX

DECAY / FEEDBACK

④

MUTE

+10 ⸻ 0

⑤

+5 ⸻ -6

0

-5 ⸻ -12

-10

-20 ⸻ -18

-40 ⸻ -24

-∞ ⸻ -30
-48

⑥

EFX RETURN
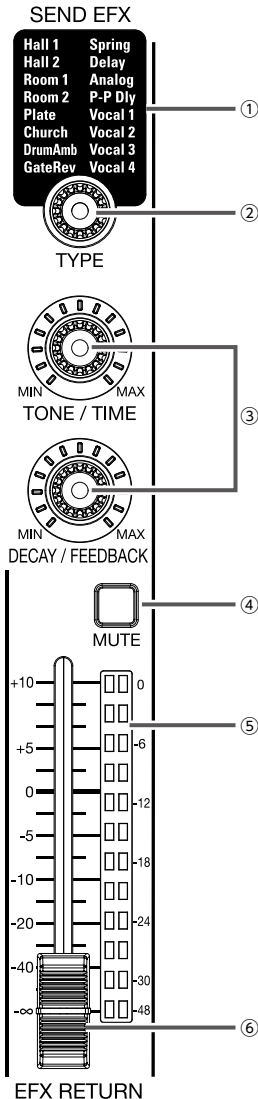
① **Effect type list**
This is the list of the built-in effects.
The name of the currently selected effect lights.
It blinks when being selected.
If some time passes without a different effect being selected, the previously selected effect will remain selected.

② **TYPE knob**
Use to select the built-in effect.
Turn this knob to select the effect type, and press it to confirm.

③ **Parameters 1 and 2**
Use these to adjust the parameters for the selected effect.
See P. 95 for the parameters of each effect.

④ **EFX RETURN MUTE button**
This mutes or unmutes the signal sent from the built-in effect.
To mute the signal, press this button to light it.

⑤ **EFX RETURN level meters**
These show the levels of the signals sent from the built-in effect to the master bus after adjustment by the EFX RETURN fader. Their range is from −48 dB to 0 dB.

⑥ **EFX RETURN fader**
This adjusts the levels of the signals sent from the built-in effect to the master bus in a range from −∞ dB to +10 dB.

NOTE

If the actual channel fader position differs from the channel fader position recalled using the scene function, for example, the level meters will show the recalled fader position.

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Output section
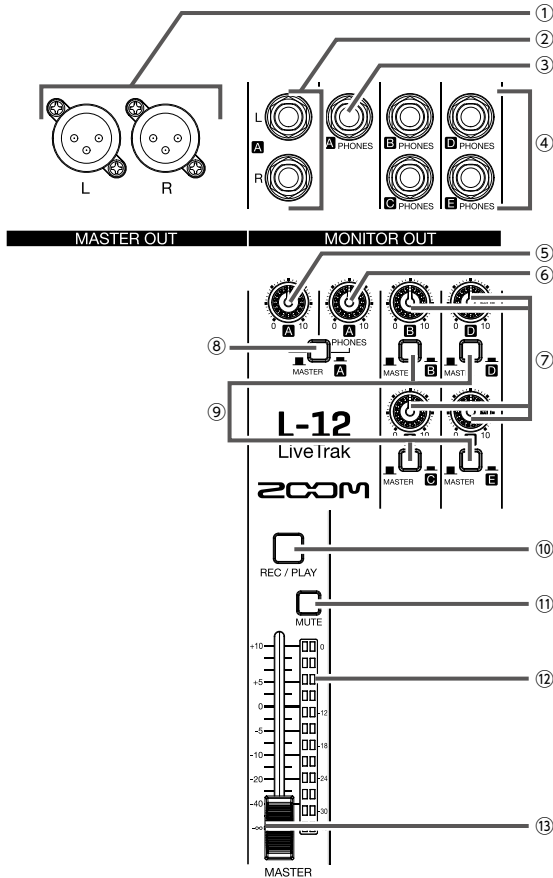
① MASTER OUT jacks

These jacks output signals after volume adjustment by the master fader.

Connect them to a power amplifier, a PA system or speakers with built-in amplifiers, for example.

These support balanced output with XLR connectors (2 HOT).

② MONITOR OUT A jacks

These jacks output signals after volume adjustment by the MONITOR OUT A knob.

You can, for example, connect a monitoring system for the mixer operator here.

These support balanced 1/4-inch jack phone output.

NOTE

The MONITOR OUT A jacks can be set to output the same signals as the MASTER OUT jacks or the signals set separately in the fader mode section. (→ P.31)

③ **MONITOR OUT A PHONES jack**

This headphone jack outputs signals after volume adjustment by the MONITOR OUT A PHONES knob.

NOTE

The MONITOR OUT A PHONES jack always outputs the same signals as the MONITOR OUT A jacks.

④ **MONITOR OUT B–E PHONES jacks**

These headphone jacks output signals after volume adjustments by the MONITOR OUT B–E PHONES knobs.

NOTE

The MONITOR OUT B–E jacks can be set to output the same signals as the MASTER OUT jacks or the signals set separately in the fader mode section. (→ P.31)

⑤ **MONITOR OUT A knob**

Use to adjust the volume of the signals output from the MONITOR OUT A jacks.

⑥ **MONITOR OUT A PHONES knob**

Use to adjust the volume of the signals output from the MONITOR OUT A PHONES jack.

⑦ **MONITOR OUT B–E knobs**

Use to adjust the volumes of the signals output from the MONITOR OUT B–E PHONES jacks.

⑧ **MONITOR OUT A switch**

This switches MONITOR OUT A output between the L/R jacks and the PHONES jack.

Status	Explanation
MASTER (■■)	The same signals as the MASTER OUT are output.
A (■■)	The signals set in the FADER MODE section are output.

⑨ **MONITOR OUT B–E switches**

These switch the signals output from the MONITOR OUT B–E PHONES jacks.

Status	Explanation
MASTER (■■)	The same signals as the MASTER OUT are output.
B–E (■■)	The signals set in the FADER MODE section are output.

⑩ **MASTER REC/PLAY button**

Use this button to switch between recording the signal input on the master bus to the SD card and playing back an already recorded file from the SD card.

Status	Explanation
Lit red	The signal will be recorded to the SD card after adjustment by the master fader.
Lit green	The playback signal of a file is inserted on the master bus. The REC/PLAY buttons of other channels will be unlit at this time.
Unlit	Files will neither be recorded nor played back.

⑪ **MASTER MUTE button**

This mutes or unmutes the MASTER OUT jacks. To mute the signals, press this button to light it.

⑫ **Master level meters**

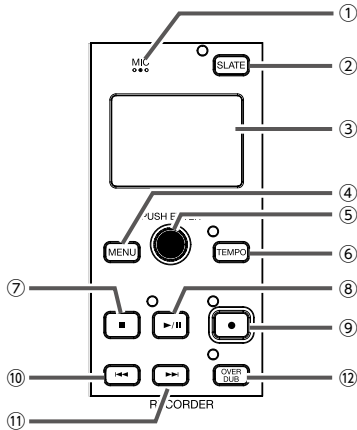These show the signal levels output from the MASTER OUT jacks in a range from −48 dB to 0 dB.

⑬ **Master fader**

This adjusts the signal levels output from the MASTER OUT jacks in a range from −∞ to +10 dB.

NOTE

If the actual channel fader position differs from the channel fader position recalled using the scene function, for example, the level meters will show the recalled fader position.

RECORDER section

⑥ TEMPO button/indicator

This sets the tempo of the metronome built into the recorder.

Press this button to make the recorder detect the tempo from the average value.

During recording and playback, the indicator blinks at a tempo of 40.0–250.0 bpm.

See P. 49 for metronome settings.

⑦ STOP button

This stops the recorder.

⑧ PLAY/PAUSE button/indicator

This starts and pauses recorder playback. The indicator shows the playback status as follows.

Status	Explanation
Lit green	The recorder is playing back.
Blinking green	Playback is paused.

⑨ REC button/indicator

This puts the recorder in recording standby. The indicator shows the recording status as follows.

Status	Explanation
Lit red	The recorder is recording or in recording standby.
Blinking red	Recording is paused.

⑩ REW button

Press to move to the previous mark.

If no mark is set, this moves to the beginning. Press this button when at the beginning to move to the previous project.

Press and hold to search backward. (The longer you press, the faster the speed becomes.)

⑪ FF button

Press to move to the next mark.

If it is the last mark, this moves to the end of the file. Press this button again to move to the next project.

Press and hold to search forward. (The longer you press, the faster the speed becomes.)

⑫ OVER DUB button/indicator

Status	Explanation
Lit (ON)	Record by overwriting into the current project folder.
Unlit (OFF)	Create a new project folder and make a new recording.

① Slate mic

This is a built-in mic for recording comments.

This mic input is active while the SLATE button is being pressed.

The input channel can be set to channels 1–12, MASTER, or all channels. (→ P. 55)

② SLATE button/indicator

This activates the slate mic.

The slate mic is activated while this button is being pressed and its indicator is lit.

③ Display

This shows the recorder status and MENU screen.

④ MENU button

This opens the menu.

⑤ Selection encoder

Use this to change menus and values and to move between items.

Operation	Result
Turn when main recorder screen open	Search forward or backward in one-second increments.
Push when main recorder screen open	This sets a mark.
Turn when menu open	Move between parameters and change values.
Press when menu open	Confirm parameter value.

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Rear panel

① POWER switch
This turns the **L-12** on and off.
Switch to — to turn the power on. Switch to ○ to turn the power off.
When the POWER switch setting is changed to OFF, the current mixer settings are automatically saved in the unit and in the settings file in the project folder on the SD card.

② DC IN 12V AC adapter connector
Connect the included AC adapter here.

③ USB HOST port
This USB 2.0 HOST port is for connecting USB flash drives.
Projects and audio files can be saved on and loaded from connected USB flash drives.

④ MODE switch
Set whether to use as a USB HOST, card reader or audio interface.
This cannot be changed after starting up.

⑤ USB DEVICE port
This USB 2.0 port is for connecting with a computer.
It will start up as a card reader or audio interface, depending on the MODE switch selection.
Card reader mode
Operating as an SD card reader, data can be exchanged with a computer.
Audio interface mode
Operating as an audio interface, audio data can be exchanged with a computer.
Inputs: The signals from channels 1–12 after they pass through their compressors and the master fader output signals are input to the computer.
Outputs: Outputs from the computer can be assigned to channels 9/10 and 11/12.
Use when connected to an iOS device is possible if the CLASS COMPLIANT MODE switch is set to ON.

⑥ CLASS COMPLIANT MODE switch
Use this to turn Class Compliant Mode ON/OFF.
Set it to ON when connected to an iOS device.

⑦ SAMPLE RATE switch
Set the sampling rate used by the unit.
This cannot be changed after starting up.

⑧ SD card slot
This slot is for SD cards.
The **L-12** supports SD, SDHC and SDXC card specifications.

HINT
You can test whether an SD card can be used with the **L-12**. (→ P.83)

⑨ CONTROL IN jack
A footswitch (ZOOM FS01) can be connected here.
The footswitch can be assigned to one function: starting/stopping recorder playback, manually punching in/out or muting/unmuting the built-in effect. (→ P.86)

Equipment connection example

Live PA system

Drums

Electric guitar

Keyboard

Vocal/chorus mics ×2

Drum mics ×3

Electric acoustic guitar

Bass

Powered speakers (main)

Performer headphones×4

DI

Headphones

Portable audio player

Equipment connection example

Computer
(for recording and
playback)

Footswitch

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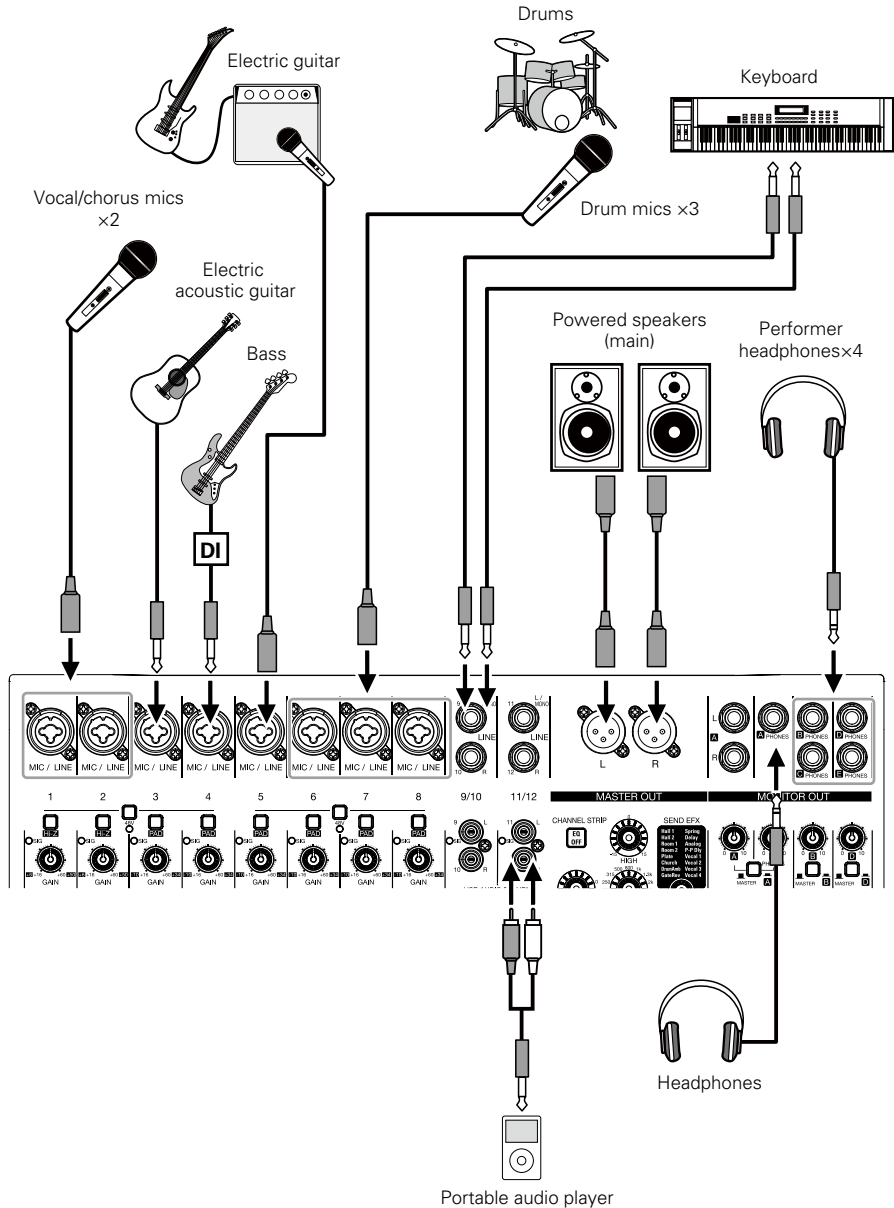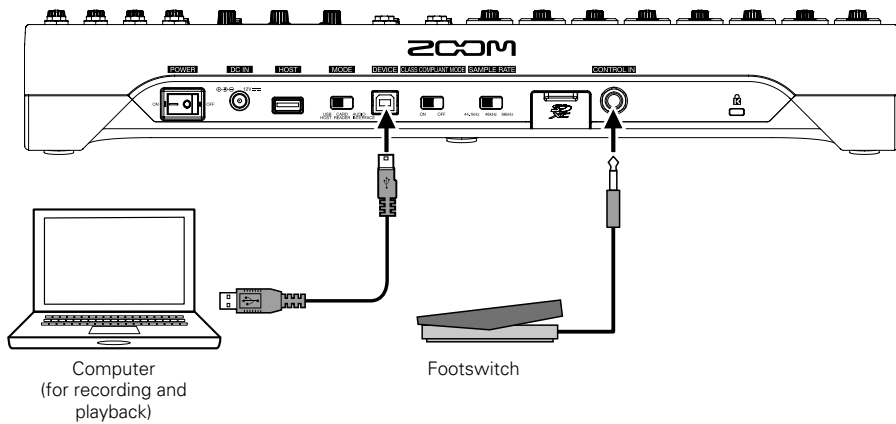
Display overview

Home Screen

No.	Item	Explanation
①	Project name	This shows the project name. "<" appears if there is another project before this one in the folder. ">" appears if there is another project after this one in the folder.
②	Status icon	This shows the status as follows. ▢: Stopped ❚❚: Paused ◯: Recording ▶: Playing back
③	Counter	This shows the hour: minute: second.
④	Progress bar	This bar shows the amount of time in the project from beginning to end.
⑤	Folder name	The folder where the project is saved will be shown as FOLDER01 – FOLDER10.
⑥	PLAY MODE icon	This shows the PLAY MODE setting.(→ P. 81)
⑦	Metronome icon	This is shown when the metronome is enabled. (→ P. 48)
⑧	Project protection icon	This is shown when project protection is enabled.(→ P.59)
⑨	Remaining recordable time	This shows the remaining recordable time. This will change automatically according to the number of channels that have recording enabled with ▢ . _{REC / PLAY}
⑩	Recording file format	This shows the recording file format used by the recorder.
⑪	Current date and time	This shows the current date and time.
⑫	SD card icon	This is shown when an SD card is being recognized.
⑬	Mark	This shows the mark number and the status as follows. ▶: at mark (mark added at counter location) ▸: not at mark (mark not added at counter location)
⑭	Longest file time in project	This shows the length of the longest file in the project.

Turning the unit on/off

Turning the unit on

POWER switch

DC IN 12V
AC adapter connector

GAIN knob

Input/Output jacks

Channel faders

EFX RETURN fader

Master fader
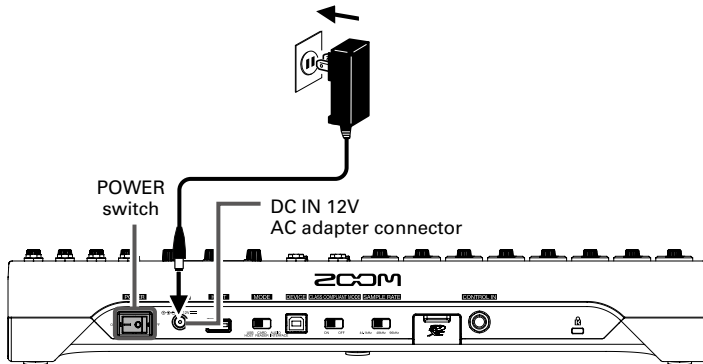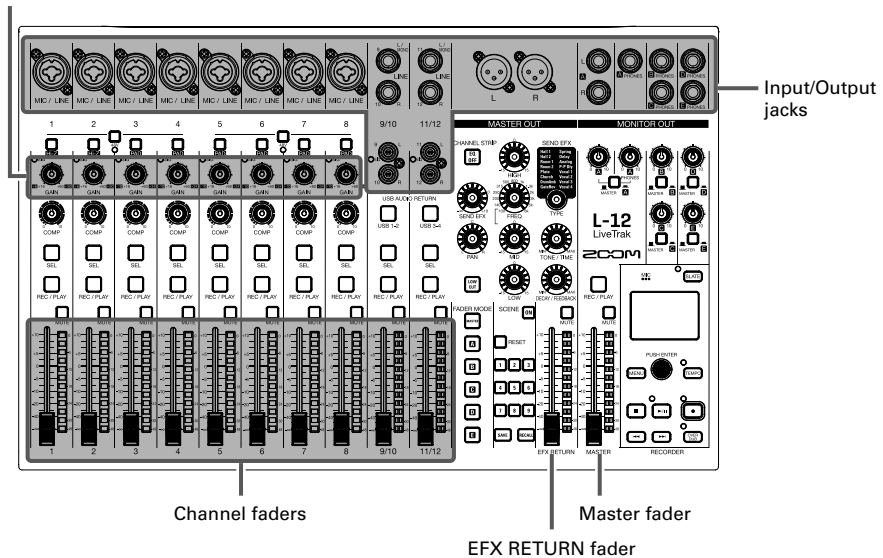
1. Confirm that the output devices connected to the **L-12** are turned off.

2. Confirm that ON $\boxed{}$ OFF is set to OFF.
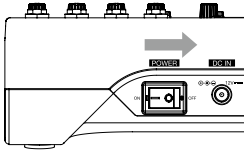
3. Plug the AD-19 adapter designed for this unit into an outlet.

4. Set all knobs and faders to their minimum values.

5. Connect instruments, mics, speakers and other equipment.

> **HINT**
>
> Equipment connection example (→ P.16)

6. Set ON $\boxed{}$ OFF to ON.

7. Turn on the output devices connected to the **L-12**.

> **NOTE**
>
> • When using a passive guitar or bass guitar, connect it to channel 1 or 2, and turn on. (→ P.6)
> • When using a condenser mic, turn on. (→ P.6)
> • The power will automatically turn off if the **L-12** is unused for 10 hours. If you want the power to stay on always, disable the automatic power saving function (→ P.88)

Turning the power off

1. Minimize the volume of devices connected to the **L-12**.

2. Turn off the power of output devices connected to the **L-12**.

3. Set ON ⏻POWER⏻ OFF to OFF.

The following screens appear and the power turns off.

NOTE

When the power is turned off, the current mixer settings are saved in the project on the SD card. If they cannot be saved to the SD card, they will be saved in the unit.

Using the MENU screen

Recorder function settings, for example are made for the **L-12** using the MENU screen. This is an explanation of the basic menu operations.

Open the menu: Press MENU

This opens the MENU screen.

Select menu items and parameters: Turn

This moves the cursor.
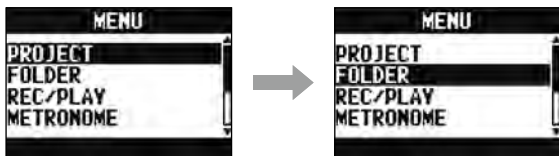
Confirm menu items and parameters: Press

This opens the selected MENU screen or parameter setting screen.
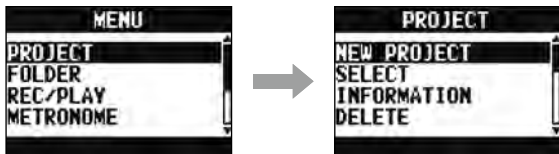
Return to previous screen: Press MENU

This opens the selected MENU screen or parameter setting screen.
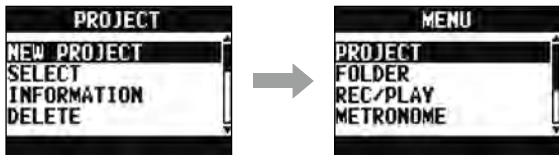
On the following pages, menu screen operations are shown in the following way. For example, "After selecting 'METRONOME' on the MENU screen, select 'CLICK'" becomes:
Select MENU > METRONOME > CLICK

Mixer

Outputting input sounds from output devices

Outputting sound from speakers

GAIN knob

MUTE button

MUTE button

Channel faders
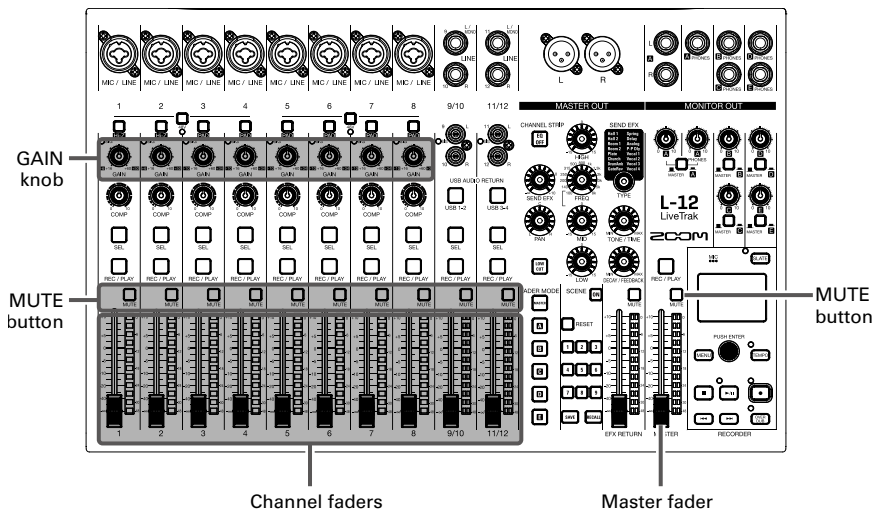
Master fader

1. Use to adjust the input signals while inputting sound from instruments and mics.

> **NOTE**
>
> Set them so that SIG indicators do not light red.
>
> SIG indicator
>
> SIG
>
> GAIN

2. Turn off (unlit) for the MASTER and the channels with sound you want to output.

3. Set the MASTER fader to 0.

4. Use the channel faders to adjust the volumes.

5. Use the MASTER fader to adjust the overall volume.

Outputting sound from headphones

MONITOR OUT A PHONES jack

MONITOR OUT
A PHONES knob

MONITOR OUT
A switch
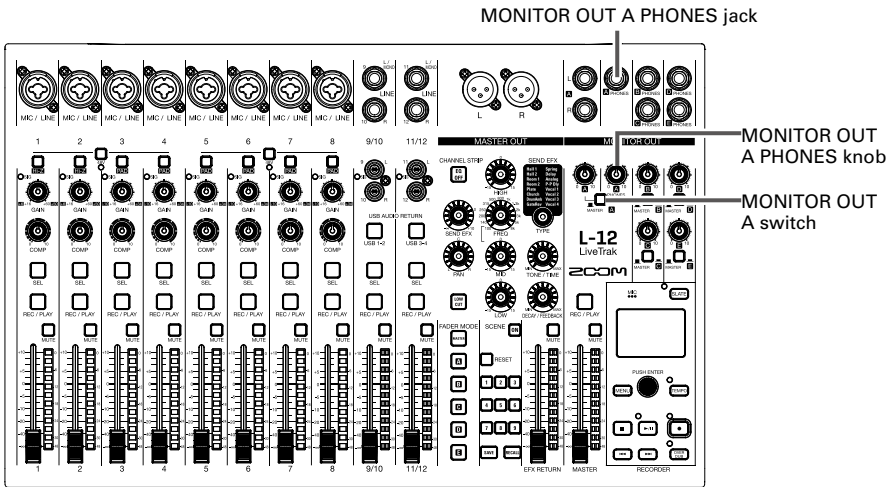
1. Connect headphones to the MONITOR OUT PHONES A jack.

2. Set ⬛ to MASTER (⬛).

MASTER A

3. Use 🎛 to adjust the volume.

0 A 10
PHONES

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Adjusting the tone and panning

SEL
button

CHANNEL
STRIP section
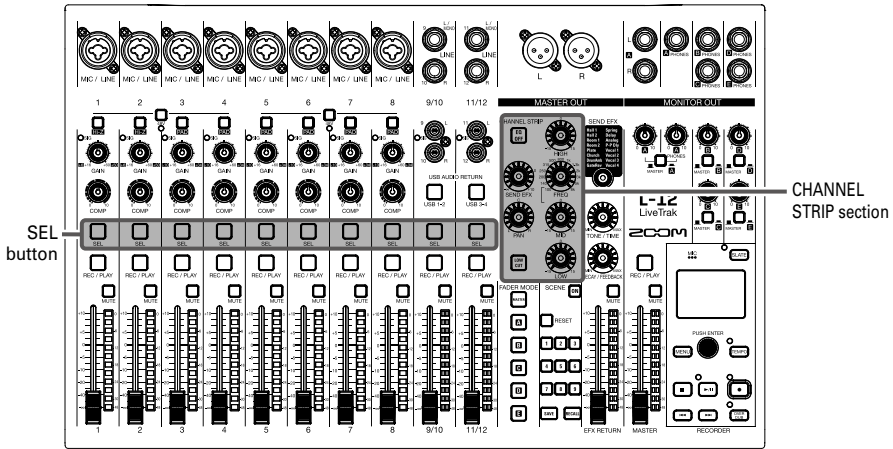
1. Press ☐ to light it for the channel for which you want to adjust tone
   SEL
and panning.

2. Use the knobs and buttons in the channel strip section to adjust the tone
and panning.

Adjusting the tone: HIGH , MID , FREQ , LOW , LOW CUT

Adjusting the panning: PAN
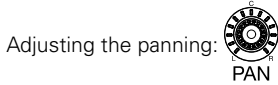
NOTE
• Press EQ OFF to light it, turning off all equalization at once. This will bypass HIGH, MID, LOW and LOW CUT settings.
• Using the compressor (→ P.6)

HINT
details about knobs and buttons (→ P.8)

Using the built-in effects

The **L-12** has 16 types of send effects

SEND EFX knob

TYPE knob

SEL button

Parameters 1 and 2

EFX RETURN MUTE button

EFX RETURN fader
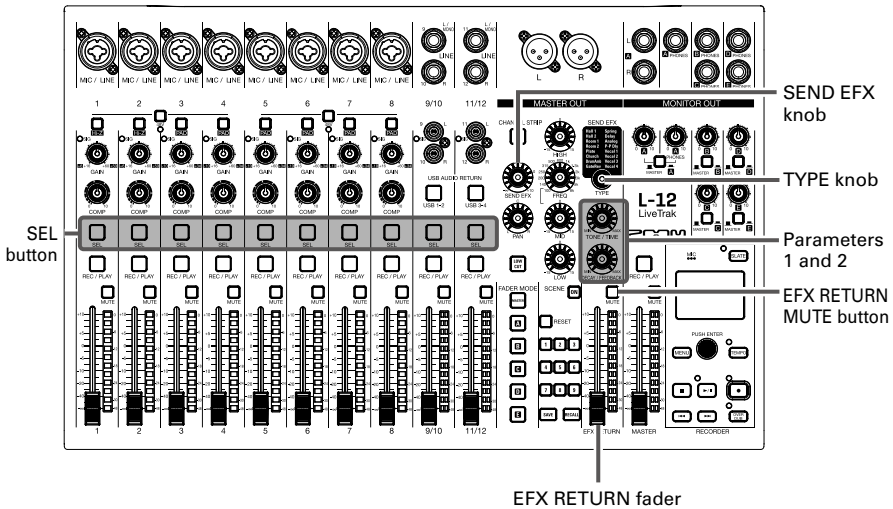
1. Turn ⊙ to select the effect type, and press ⊙ to confirm.

TYPE   TYPE

SEND EFX

Hall 1	Spring
Hall 2	Delay
Room 1	Analog
Room 2	P-P Dly
Plate	Vocal 1
Church	Vocal 2
DrumAmb	Vocal 3
GateRev	Vocal 4

Lit: Effect selected

TYPE

2. Press ☐ to turn it off, unmuting the EFX RETURN.

MUTE

3. Set the SEND EFX RETURN fader to 0.

4. Press the ⬜ for the channel that you want to use the effect on to light
   SEL
   it.

- -

5. Use 🎛 to adjust the amount for each channel.
   SEND EFX

- -

6. Use the SEND EFX RETURN fader to adjust the overall effect amount.

- -

7. Use 🎛 and 🎛 to adjust the send effect parameters.
   TONE / TIME   DECAY / FEEDBACK

┌─ **NOTE** ───┐
│   │
│ See P. 95 for the parameters of each effect that can be adjusted by 🎛 and 🎛 . │
│   TONE / TIME   DECAY / FEEDBACK │
└──┘

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Using scene functions

The scene function can be used to save up to nine sets of current mixer settings as scenes and to recall these saved settings at any time.

ON button
RESET button
1–9 buttons
RECALL button
SAVE button
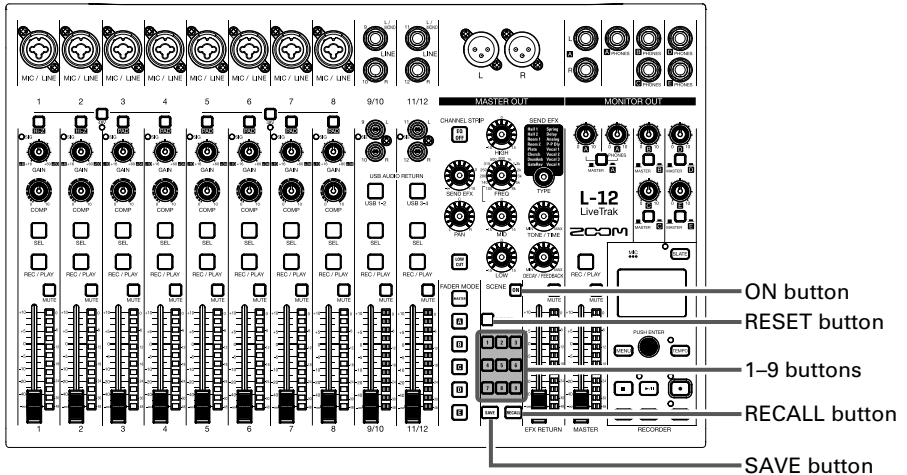
Saving scenes

1. Click `ON` so that it lights.

This enables the scene function.

2. Press `SAVE`.

Buttons `1` – `9` will light if they have saved scenes and blink if they do not.

Press `SAVE` again if you do not want to save a scene.

3. Press the button where you want to save the scene.

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Mixer

NOTE

- Nine scenes are saved in the unit. (→ P.10)
- If a button that already has a scene saved is selected, that scene will be overwritten.
- The following items are saved with scenes.
  - Fader positions (each channel, SEND EFX, MASTER)
  - MUTE ON/OFF (each channel, SEND EFX, MASTER)
  - EQ OFF
  - LOW CUT ON/OFF
  - EQ HIGH
  - EQ MID
  - EQ MID FREQ
  - EQ LOW
  - SEND EFX
  - PAN
  - SEND EFX TYPE
  - SEND EFX parameters 1 and 2
  - USB button setting

Recalling scenes

1. Click ON so that it lights.

This enables the scene function.

2. Press RECALL.

Buttons 1 – 9 will blink if they have saved scenes and be unlit if they do not.

Press RECALL again if you do not want to recall a scene.

3. Press the button for the scene you want to recall.

The scene for the selected number is recalled.

NOTE

If the actual channel fader position differs from the channel fader position shown, the volume will not change until the fader is moved to the same position. (→ P. 7)

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Resetting mixer settings

1. Click `ON` so that it lights.

This enables the scene function.

. . . .

2. Press `RECALL`.

Buttons `1` – `9` will blink if they have saved scenes and be unlit if they do not.

Press `RECALL` again if you do not want to reset the settings.

. . . .

3. Press ☐ RESET.

The current mixer settings are reset to their factory defaults.

Mixer

Setting signals output from MONITOR OUT A–E

The MONITOR OUT A–E jacks can be set to output the same mix as the MAS-TER OUT or different mixes.

MONITOR OUT switches

MASTER button

Channel faders   A–E buttons
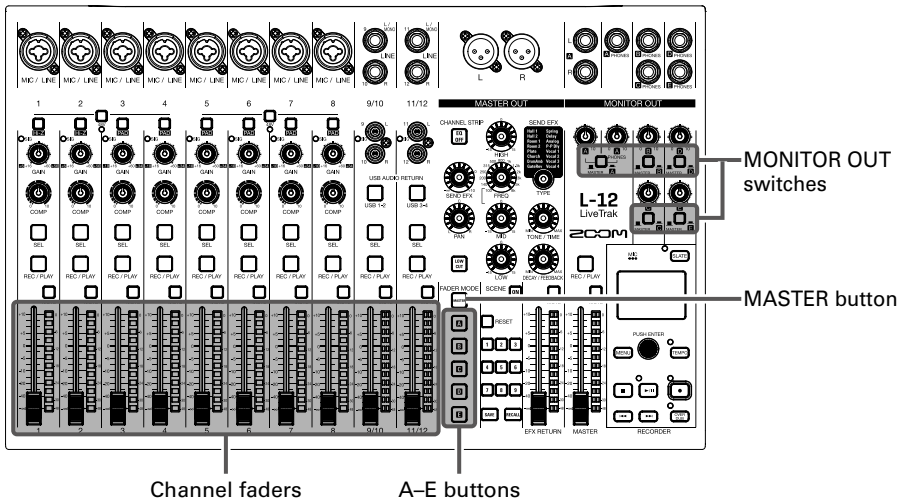
Adjusting the MONITOR OUT A–E mixes

1. Press an [A] – [E] button to select the output to mix.

The selected output button lights and operation of all the channel faders is enabled.

NOTE

The level meters show the fader positions. If the actual channel fader position differs from the channel fader position shown, the volume will not change until the fader is moved to the same position.

2. Use the channel faders to adjust the volumes.

Selecting MONITOR OUT A–E output signals

1. Use the MONITOR OUT switch for an output to select its output signal.

To output a mix set using MONITOR OUT A–E:
  Set MONITOR OUT switch to A–E (▬)
To output the same mix as the MASTER:
  Set MONITOR OUT switch to MASTER (■)

MASTER **B** ———— Output different mixes for MONITOR OUT A–E
            └———— Output same mix as MASTER
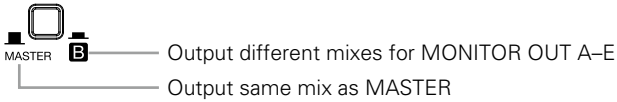
NOTE

- Each output mix is saved with the scene and project.
- MONITOR OUT A–E do not output send-return effect signals.
- The parameters that can have separate settings for the MASTER and MONITOR OUT A–E are as follows.
  - Fader positions (each channel)

Copying a mix

1. While pressing the button (MASTER or A – B) for the output you want to copy for at least 2 seconds, press a blinking copy destination button (MASTER or A – B).
This copies the mix from the source to the destination.

Recording and playback

Preparing to record

Inserting SD cards

POWER switch   SD card slot
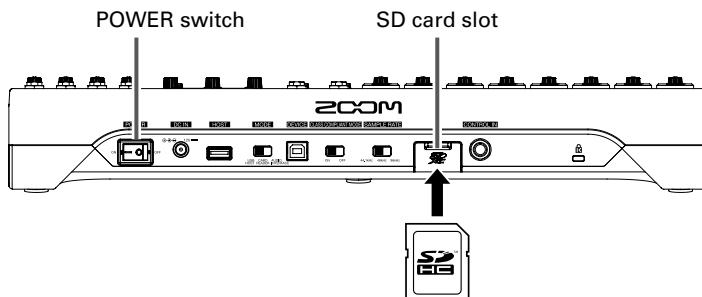
1. Set ON ⏻ OFF to OFF.

2. Open the SD card slot cover, and insert an SD card all the way into the slot.

To remove an SD card, push it further into the slot and then pull it out.

> **NOTE**
> - Disable write-protection on the SD card before inserting it.
> - Always set ON ⏻ OFF to OFF before inserting or removing an SD card.
>   Inserting or removing a card while the power is on could result in data loss.
> - When inserting an SD card, be sure to insert the correct end with the top side up as shown.
> - If an SD card is not loaded, recording and playback are not possible.
> - To format an SD card, see P.82.

Creating new projects

The **L-12** manages recording and playback data in units called projects.

1. Select MENU > PROJECT > NEW PROJECT .

2. Use ⬤ to select YES, and press ⬤ .

```
NEW PROJECT
Are you sure?

YES
NO
            MENU:RETURN
```

> **NOTE**
> - See P.56 for information about projects.
> - When a new project is created, it will start with the current mixer settings.

HINT

When the **L-12** power is turned on, it will automatically load the last used project.

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Recording and playing tracks

The **L-12** has recorder functions that enable simultaneous recording of up to 14 tracks and simultaneous playback of up to 12 tracks.

The signals from every channel after they pass through their compressors and from the master fader output can be recorded. These recordings can also be played back.

Recording

REC/PLAY button

PLAY/PAUSE button

REC button

OVER DUB button

STOP button
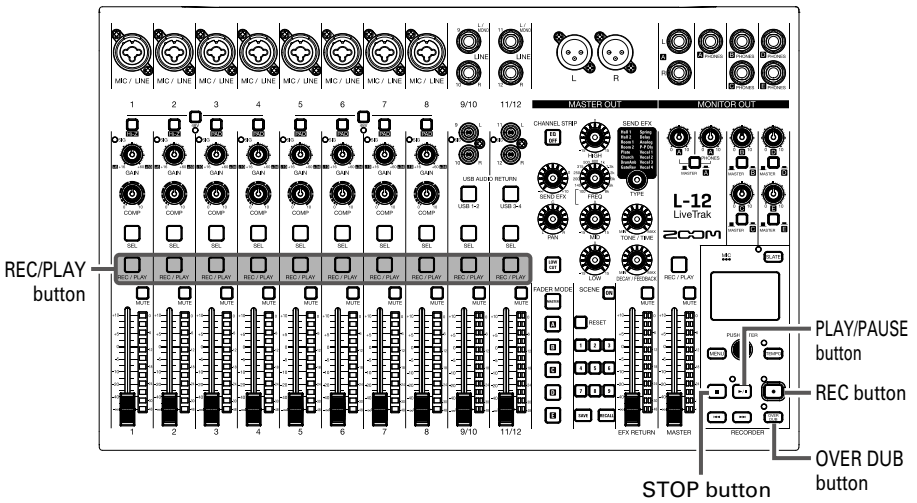
1. Use [OVER DUB] to turn overdubbing on or off.

OVER DUB indicator
[OVER DUB]
Lit (on): Overwrite current project
Unlit (off): Create and record to new project

2. Press [REC / PLAY] for the channels you want to record, lighting these buttons red.

3. Press ⏺ to start recording standby.

HINT ....

If a recorded file already exists, and `OVER DUB` is off, pressing ⏺ will create a new project and then start recording standby.

....

4. Press ▶/�II to start recording.

5. Press ■ to stop recording.

NOTE

- The signals for each channel are recorded after passing through their compressors. (→ P. 96)
- Punching in/out (→ P.39)
- Starting recording automatically (→ P.43)
- Capturing audio before recording starts (→ P.45)
- When recording stops, "Please Wait" appears on the display. Do not turn the power off or remove the SD card while this message appears. Doing so could cause data loss or malfunction.

Playing recordings

REC/PLAY button

PLAY/PAUSE button

STOP button
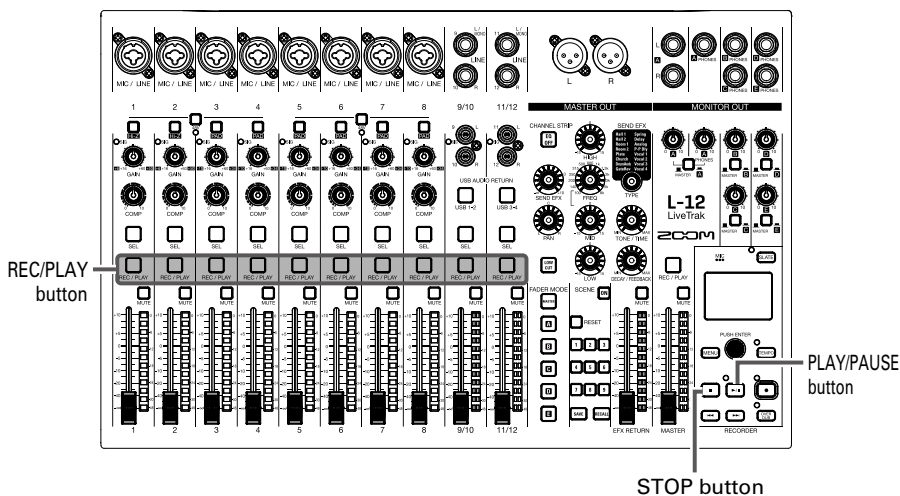
1. Press [ ] for the channels you want to play, lighting these buttons green.
REC / PLAY

2. Press [►/❚❚] to start playback.

○————— PLAY/PAUSE indicator
[►/❚❚] Lit: Playing back
Blinking: Paused

3. Press [■] to stop playback.

> **NOTE**
> • Playback signals are added before the equalizer section, so their EQ and panning settings can be adjusted during playback. (→ P. 96)
> • Selecting projects for playback (→ P.47)
> • Changing the playback mode (→ P.81)
> Other channels cannot be played back when the MASTER channel is playing back.

Adding marks

Adding marks at desired positions with the recorder makes moving to those positions easy.

Selection encoder
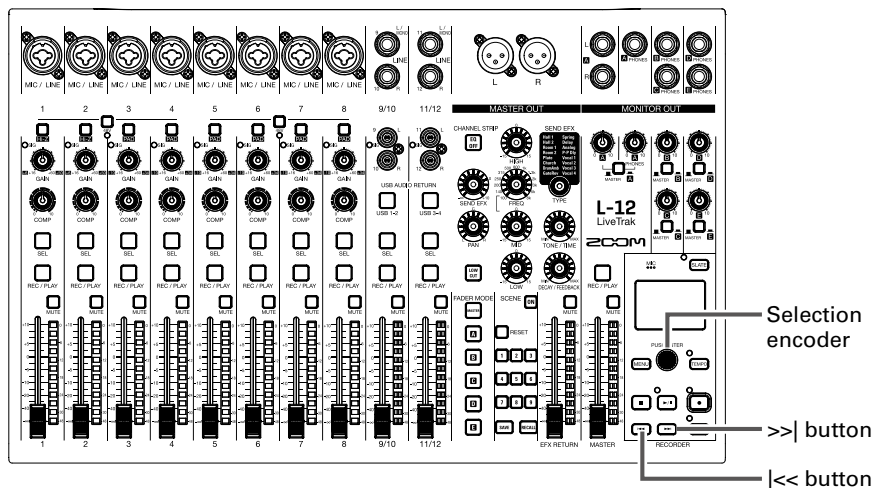
>>| button

|<< button

Adding marks during recording and playback

1. Press ⚫ during recording/playback.

Moving in mark order

1. Use these buttons to move in mark order.

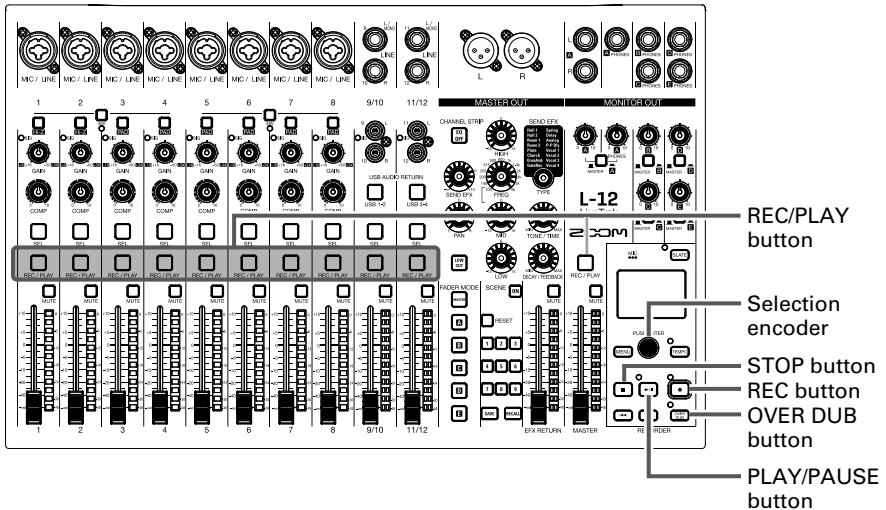Move to next mark: Press [►►]

Move to previous mark: Press [◄◄]

NOTE

Checking and deleting marks in projects (→ P.66)

HINT

- A maximum of 99 marks can be added to one project.
- You can also delete a mark by pressing the ⚫ when at the mark position.

Redoing parts of recordings (punching in/out)

Punching in/out is a function that can be used to rerecord parts of already recorded tracks. "Punching in" is switching track status from playback to recording. "Punching out" is switching track status from recording to playback.

With the **L-12**, punching in/out can be conducted using buttons on its top or a footswitch (ZOOM FS01).

REC/PLAY button

Selection encoder

STOP button
REC button
OVER DUB button

PLAY/PAUSE button

1. Press the [OVER DUB] to turn it on (lighting its indicator).

2. Press ☐ repeatedly for the tracks to re-record until they light red.

REC / PLAY

REC / PLAY

3. Press [◄◄] or turn ◉ left to move to before the part to be rerecorded.

4. Press [►/II] to start playback.

5. Press ⦿ at the position where you want to start rerecording (punch in).

6. Press ⦿ to end rerecording (punch out).

NOTE
- Punching in/out using a footswitch (ZOOM FS01) (→ P.86)
- Punching in/out overwrites recordings.
- Punching in/out can be done up to 99 times each time playback is started.

7. Press ◼ to stop playback.

Mixing down tracks

A final stereo mix can be recorded to the master track.
Signals are sent to the master track after passing through the master fader.

Recording to the master track

1. Click ⬚OVER DUB⬚ so that it lights.

> **NOTE**
>
> Adjust the volume and panning of each recorded track before starting.

2. Press MASTER ⬚ repeatedly until it lights red.
REC / PLAY

REC / PLAY

3. Press ⬚◄◄⬚ to return to the recording beginning.

4. Press ⬚●⬚ to start recording standby.

5. Press ⬚►/II⬚ to start recording.

6. Press ⬚■⬚ to end mixing down.

Playing the master track

1. Press MASTER ☐ repeatedly until it lights green.
   REC / PLAY

REC / PLAY
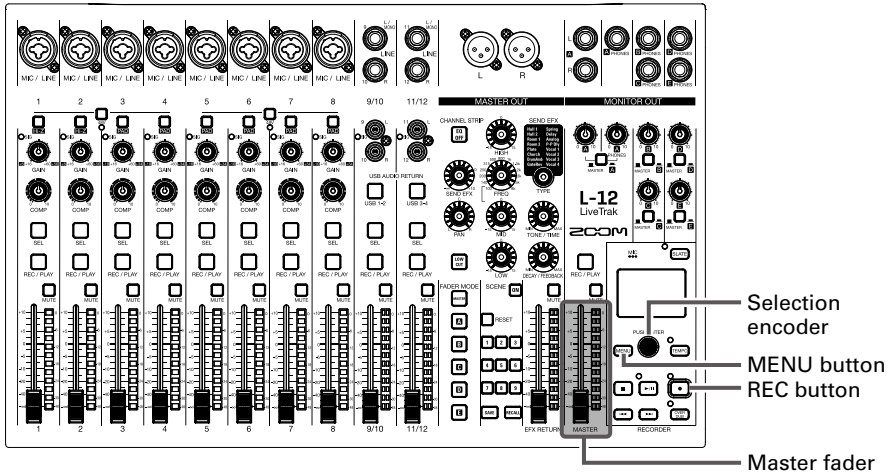
2. Press ▶/❚❚ .

> **NOTE**
> • To stop master track playback, press MASTER ☐ repeatedly until it becomes unlit.
>   REC / PLAY
> • When the master track is playing, other tracks will not be played back.
> • To listen to master track playback from a MONITOR OUT, set the MONITOR OUT A–E switch to MASTER (▮).

Recording automatically

Recording can be started and stopped automatically in response to the level after passing through the master fader.

Selection encoder

MENU button

REC button

Master fader

1. Select MENU > REC/PLAY > AUTO REC > ON/OFF.

2. Use ⟳ to select ON, and press 🔘.

NOTE

Making additional settings for automatic recording (→ P.78)

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3. Press [MENU] repeatedly to return to the main recorder screen.

The MASTER level meters will blink at the level that will cause automatic recording to start.

MASTER

---

4. Press [●].

The indicator will light and recording standby will start.

HINT

Recording starts automatically when the input exceeds the set level (shown by the MASTER level meters).

You can also set recording to stop automatically when the input goes below a set level. (→ P.79)

---

5. Press [●] to end recording standby or stop recording.

NOTE

• This function cannot be used with the PRE REC, METRONOME or PRE COUNT functions. When you turn AUTO REC on, these other functions will be disabled.

• When you turn OVER DUB on, AUTO REC will be disabled.

Capturing audio before recording starts

The input signal can be captured for up to 2 seconds before recording is started (pre-recording). Setting this in advance can be useful when a performance starts suddenly, for example.

1. Select MENU > REC/PLAY > PRE REC.

. . . .

2. Use 🔘 to select ON, and press 🔘.

```
        PRE REC
OFF
ON


                    MENU:CANCEL
```

NOTE

- This function cannot be used with the AUTO REC, METRONOME, PRE COUNT or OVER DUB functions. When you turn AUTO REC or PRE COUNT on, PRE REC will be disabled.
- The PRE REC function continues to be enabled even when recording is paused.

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Selecting the folder where projects are saved

Choose one of ten folders as the folder where recorded projects will be saved.

1. Select MENU > FOLDER.

. . . .

2. Use 🔘 to select the folder where you want to save, and press 🔘.

```
        FOLDER
FOLDER01
FOLDER02
FOLDER03
FOLDER04
           MENU:CANCEL
```

> **NOTE**
> • Up to 1000 projects can be saved in a single folder.
> • If a folder that does not have a project is selected, a new project will be created automatically.

Selecting projects for playback

Projects saved on SD cards can be loaded.

1. Select MENU > PROJECT > SELECT.

. . . .

2. Use 🎛 to select the project you want to load, and press 🎛.

NOTE

- Projects in different folders cannot be selected. To select a project that is saved in a different folder, select that folder first. (→ P.46)
- When a project is loaded, the mixer settings saved in that project are also loaded.
- If actual channel fader positions differ from the channel fader positions of the loaded project, the level meters will show the recalled fader positions. The volume will not be changed until the actual fader position becomes the same as the recalled position.
- When switching to a different project, the project mixer settings of the current project are saved to the settings file in the project folder.

Using the metronome

The **L-12** metronome has adjustable volume, a selectable sound, and a pre-count function. The volume can also be adjusted separately for each output. Metronome settings are saved separately with each project.
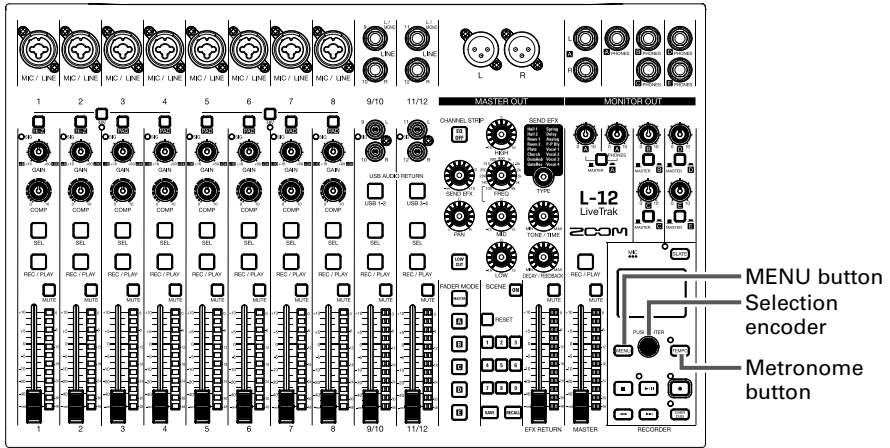
Enabling the metronome

1. Select MENU > METRONOME > CLICK.

2. Use to select when the metronome makes sound, and press .

```
      CLICK
OFF
REC AND PLAY
REC ONLY
PLAY ONLY
            MENU:CANCEL
```

Setting value	Explanation
OFF	The metronome does not make sound.
REC AND PLAY	The metronome sounds during recording and playback.
REC ONLY	The metronome sounds only during recording.
PLAY ONLY	The metronome sounds only during playback.

Changing metronome settings

MENU button
Selection encoder
Metronome button

Changing the metronome tempo

1. Press [TEMPO].

The current tempo is shown on the display.

- -

2. Do one of the following to change the tempo.

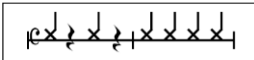• Turn

• Press [TEMPO] repeatedly at the tempo you want to set

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Setting the precount

A metronome count can be sounded before starting recording/playback.

1. Select MENU > METRONOME > PRE COUNT.

....

2. Use ⚫ to select the precount behavior, and press ⚫.

```
┌─ PRE COUNT ──┐
│OFF           │
│1             │
│2             │
│3             │
│        MENU:CANCEL│
└──────────────┘
```

Setting value	Explanation
OFF	No precount will sound.
1–8	Before recording/playback, the precount will sound for the set number of times (1–8).
SPECIAL	Before recording/playback, the precount will sound as shown below.

NOTE

- The precount is enabled even during playback.
- This function cannot be used with the AUTO REC function. When you turn AUTO REC on, PRE COUNT will be disabled.
- This function cannot be used with the PRE REC function. When you turn PRE COUNT on, PRE REC will be disabled.

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Changing the metronome sound

1. Select MENU > METRONOME > SOUND.

2. Use ⟳ to select the sound, and press ⟱.

```
        SOUND
BELL
CLICK
STICK
COWBELL
▶PLAY          MENU:CANCEL
```

HINT

The options are BELL, CLICK, STICK, COWBELL and HI-Q.

NOTE

Press ▶/Ⅱ to play the metronome and check the sound.

Changing the metronome pattern

1. Select MENU > METRONOME > PATTERN.

2. Use ⟳ to select the pattern, and press ⟱.

```
       PATTERN
4/4
5/4
6/4
7/4
▶PLAY          MENU:CANCEL
```

HINT

The options are 1/4–8/4 and 6/8.

NOTE

Press ▶/Ⅱ to play the metronome and check the pattern.

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Changing the metronome volume

The metronome volume can be adjusted separately for the MASTER OUT and each of the MONITOR OUT A–E outputs.

1. Select MENU > METRONOME > LEVEL > MASTER or A–E.

2. Turn ⬤ to adjust the volume, and press ⬤.

LEVEL:MASTER
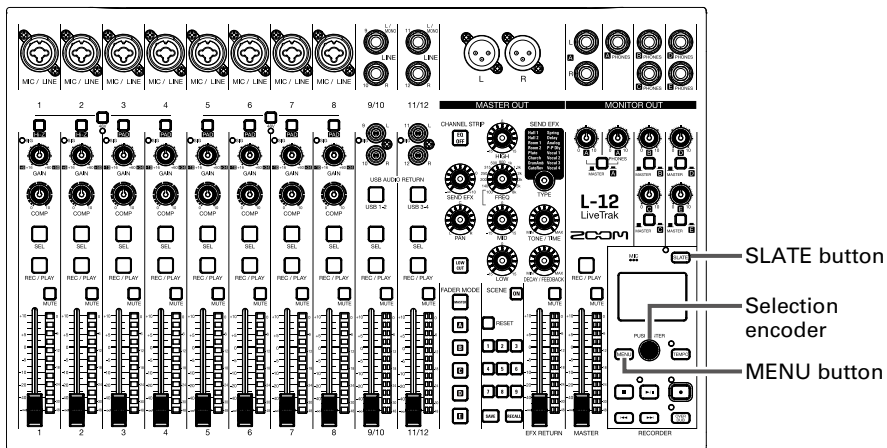
100 ≑

⏯PLAY   MENU:CANCEL

HINT

Set from 0 to 100.

NOTE

Press ▶/❚❚ to play the metronome and check the volume.

Using the slate mic

The **L-12** has a built-in slate mic that allows comments to be recorded.

SLATE button

Selection encoder

MENU button

Recording with the slate mic

1. Start recording. (→ P.35)

2. Press [SLATE] to enable the slate mic.

While [SLATE] is being pressed, the indicator lights and the slate mic is enabled.

NOTE
- When the slate mic is in use, signals from input jacks are muted to the channels to which the slate mic is routed.
- None of the channel faders affect the level of the slate mic.

Changing slate mic settings

Changing the slate mic volume

1. Select MENU > SLATE > LEVEL.

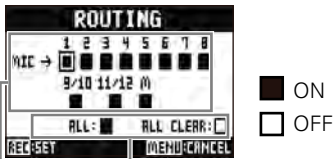**2.** Turn ⬤ to adjust the volume, and press ⬇.

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Changing the slate mic routing

1. Select MENU > SLATE > ROUTING.

2. Turn 🔄 to select a channel for routing.

3. Press 🔘 confirm.

■ ON
☐ OFF

ALL: Set routing to all channels at once
ALL CLEAR: Clear all settings

Channel routing for slate mic input

4. Press ⏺.

HINT

Pressing 🔘 toggles it ON/OFF.

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Projects

The **L-12** manages recording and playback data in units called projects.
The following data is saved in projects.

- Audio data
- Mixer settings
- Send return effect settings
- Mark information
- Metronome settings

Changing project names

The name of the currently loaded project can be changed.

MENU button
Selection encoder
REC button

1. Select MENU > PROJECT > RENAME.

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2. Edit the name.

Move cursor or change character: Turn

Select character to change/confirm change: Press

RENAME

170414_121710

REC:EXECUTE   **MENU**:CANCEL
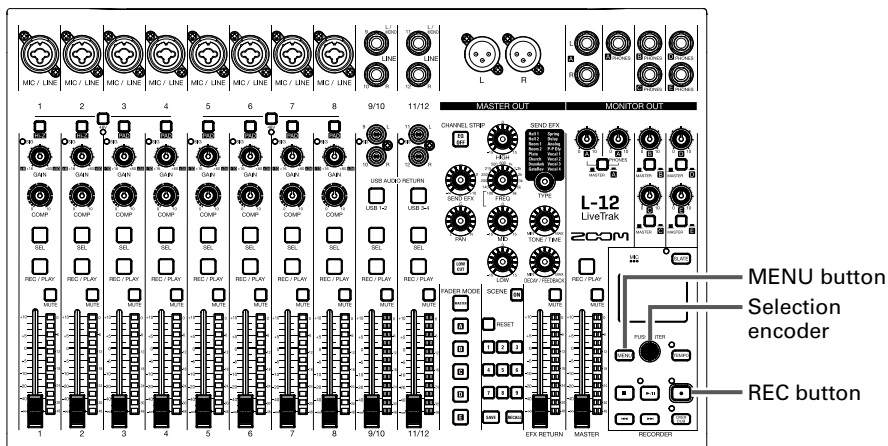
NOTE

- The default project name is the date and time of creation.
  For example, if a project was created at 6:48:20 p.m. on March 14, 2017, the project name would be "170314_184820" (YYMMDD-HHMMSS).
- Project names have 13 characters.
- The following characters can be used in project and file names.
  (space) ! # $ % & ' ( ) + , - 0 1 2 3 4 5 6 7 8 9 ; = @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { ˜ }
- Projects can be ordered by numerical or alphabetical order.
- Project/file names cannot be only spaces.
- The project name is the same as the project folder name on the SD card.

3. Press ⬤.

Deleting projects

Projects inside the selected folder can be deleted.

1. Select MENU > PROJECT > DELETE.

. . . .

2. Use ⟳ to select the project you want to delete, and press ⬇.

. . . .

3. Use ⟳ to select YES, and press ⬇.

```
DEL:170414_121710
  Are you sure?

        YES
        NO
             MENU:RETURN
```

NOTE

Projects cannot be deleted if protection is ON.

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Protecting projects

The currently loaded project can be write-protected, preventing the project from being saved, deleted or having its content changed.

1. Select MENU > PROJECT > PROTECT.

2. Use ⬤ to select ON, and press ⬤.

NOTE
- Projects cannot be used for recording if protection is ON. Turn protection OFF to record.
- When protection is OFF for a project, it will always be saved to the SD card when the power is turned off or another project is loaded. We recommend turning protection ON to prevent accidentally saving changes to a musical project after it has been completed.

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Checking project information

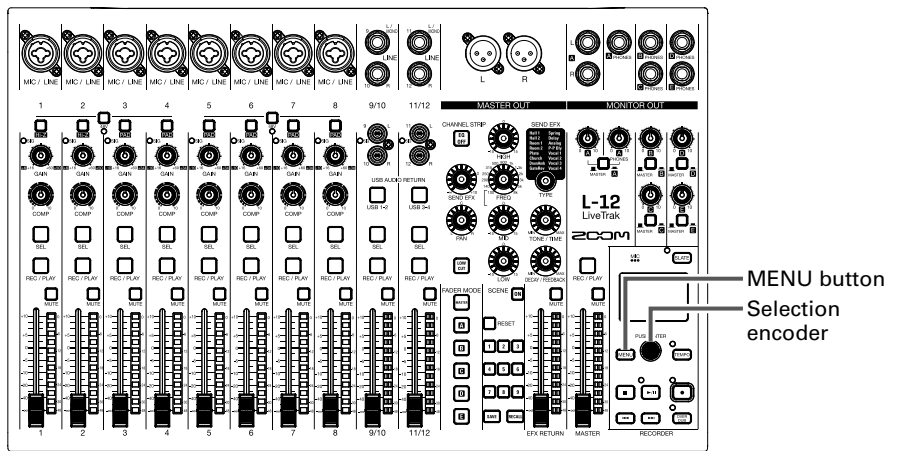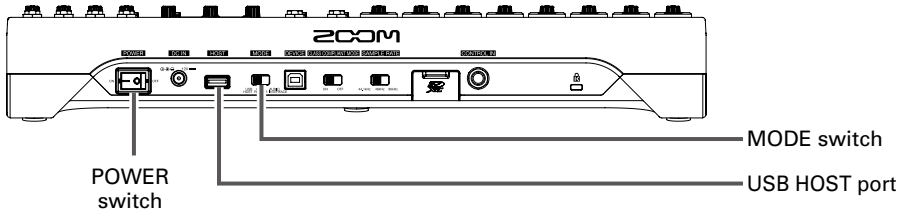Various information about the currently loaded projects can be viewed.

1. Select MENU > PROJECT.

. . . .

2. Use ⟳ to select the project with information you want to check, and press ⟱.

. . . .

3. Use ⟳ to select INFORMATION, and press ⟱.

```
     INFORMATION
NAME  170414_1217
PATH  FOLDER01/
      170414_1217
DATE  2011/01/01
              MENU:RETURN
```

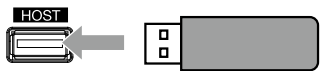| Items shown	Explanation
NAME	Project name
PATH	Location where project saved
DATE	Project creation date and time (YYYY/MM/DD HH:MM:SS)
FORMAT	Recording format
SIZE	Project size
TIME	Project length (HHH: MM: SS)
FILES	Information about tracks and files

Saving projects to USB flash drives

A USB flash drive can be connected directly to the **L-12**, and the currently loaded project can be saved to it.

MODE switch

POWER switch

USB HOST port

MENU button

Selection encoder

1. Set ON [ ] OFF to OFF.

....

2. Connect the USB flash drive to the USB HOST port.

HOST

....

3. Set [switch] USB HOST CARD READER AUDIO INTERFACE to USB HOST.

4. Set [switch] ON POWER OFF to ON.

5. Select MENU > PROJECT > PROJECT EXPORT.

6. Edit the name.

Move cursor or change character: Turn [dial]

Select character to change/confirm change: Press [dial]

```
RENAME

170414_121710

REC:EXECUTE    MENU:CANCEL
```

NOTE

- The default project name is the date and time of creation.
  For example, if a project was created at 6:48:20 p.m. on March 14, 2017, the project name would be "170314_184820" (YYMMDD-HHMMSS).
- Project names have 13 characters.
- The following characters can be used in project and file names.
  (space) ! # $ % & ' ( ) + , - 0 1 2 3 4 5 6 7 8 9 ; = @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { }
- Projects can be ordered by numerical or alphabetical order.
- Project/file names cannot only be spaces.
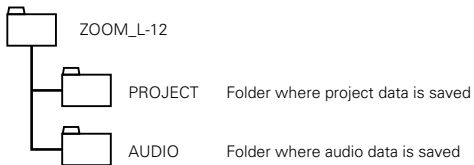- The project name is same as the project folder name on the SD card.

7. Press [●].

8. Use ⬤ to select YES, and press ⬤.

```
PROJECT EXPORT
Are you sure?

YES
NO
           MENU:RETURN
```

> **NOTE**
> • The folder structure on USB flash drives is as follows.
>   Never change this folder structure.
>
>   📁 ZOOM_L-12
>
>   📁 PROJECT   Folder where project data is saved
>
>   📁 AUDIO   Folder where audio data is saved
>
> • Projects will be saved on the USB flash drive in the "PROJECT" subfolder of the "ZOOM_L-12" folder.
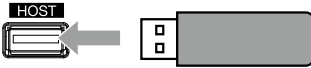> • Never disconnect a USB flash drive when "Saving" or "Loading" appears on the display.

Importing projects from USB flash drives

Projects saved on USB flash drives can be copied to SD cards.

> **NOTE**
>
> Use a computer to create "ZOOM_L-12" and "PROJECT" folders on the USB flash drive in advance (→ P. 63). Only projects inside the "PROJECT" folder can be imported.

1. Set ON [POWER] OFF to OFF.

2. Connect the USB flash drive to the USB HOST port.

3. Set USB HOST / CARD READER / AUDIO INTERFACE to USB HOST.

4. Set ON [POWER] OFF to ON.

5. Select MENU > PROJECT > PROJECT IMPORT.

6. Use to select the project you want to load from the USB flash drive, and press .

PROJECT IMPORT
170414_121711
170510_201000
170512_141207
170512_141208

7. Edit the name.

Move cursor or change character: Turn

Select character to change/confirm change: Press

```
PROJECT IMPORT

170512_141207

REC:EXECUTE      MENU:CANCEL
```

NOTE

- The default project name is the date and time of creation.
  For example, if a project was created at 6:48:20 p.m. on March 14, 2017, the project name would be "170314_184820" (YYMMDD-HHMMSS).
- Project names have 13 characters.
- The following characters can be used in project and file names.
  (space) ! # $ % & ' ( ) + , - 0 1 2 3 4 5 6 7 8 9 ; = @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { ˜ }
- Projects can be ordered by numerical or alphabetical order.
- Project/file names cannot only be spaces.
- The project name is the same as the project folder name on the SD card.

8. Press .

9. Use to select YES, and press .

```
PROJECT IMPORT
Are you sure?

YES
NO
         MENU:RETURN
```
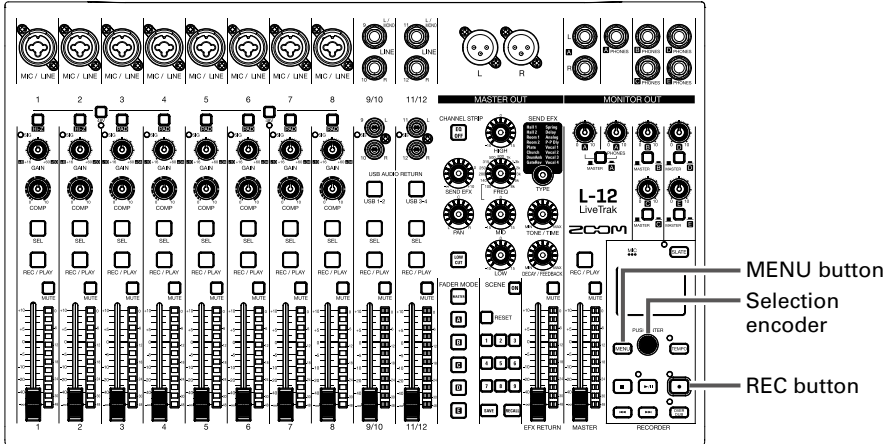
NOTE

- Imported projects are saved in the currently selected folder.
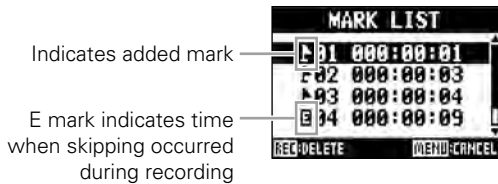- Never disconnect a USB flash drive when "Saving" or "Loading" appears on the display.

Managing marks

A list of marks in the currently loaded project can be opened, allowing them to be checked, played and deleted.

MENU button
Selection encoder
REC button

1. Select MENU > PROJECT > MARK LIST.

A list of marks appears.

Indicates added mark

E mark indicates time when skipping occurred during recording

2. Use ⟳ to select a mark, and play or delete it.

Press ⟳ to move to the mark position.

Press ⬤ to delete the mark.

Audio files

The **L-12** creates the following types of audio files according to the recording channel.

• Channels 1–8: mono WAV files

• Channels 9/10, 11/12 and MASTER: stereo WAV files

The file format depends on the sampling rate (→ P.87) and quantization bit depth (→ P.77) used by the unit.
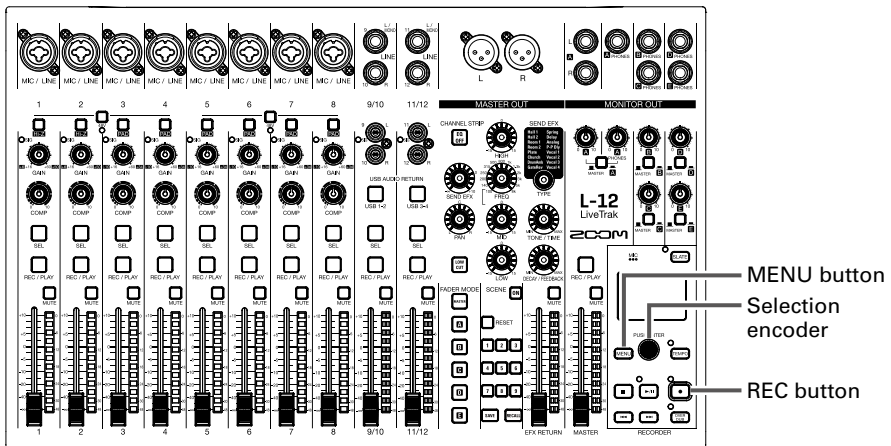
The **L-12** can also play back audio files created using DAW software (→ P.71).

NOTE

- The names given to audio files depend on their channels.
  Channels 1–8: TRACK01–TRACK08
  Channels 9/10, 11/12: TRACK09_10, TRACK11_12
  MASTER: MASTER
- If the file size exceeds 2GB during recording, a new file will be created automatically in the same project and recording will continue without pause. When this happens, numbers will be added to the ends of the file names: "-01", "-02" and so on.

Deleting audio files

Audio files that are not needed can be deleted.

MENU button
Selection encoder
REC button

1. Select MENU > FILE DELETE.

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2. Use ⟳ to select the file you want to delete, and press ⬇.

> **FILE DELETE**
> ☑TRACK01.WAV
> ☑TRACK02.WAV
> ☐TRACK03.WAV
> ☐TRACK04.WAV
> PLAY:ALL   REC:EXECUTE

NOTE

Press ►/❚❚ to select/deselect all files.

3. Press ⟮ • ⟯.

4. Use ⟳ to select YES, and press ⬇.

> **FILE DELETE**
> Are you sure?
>
> **YES**
> NO
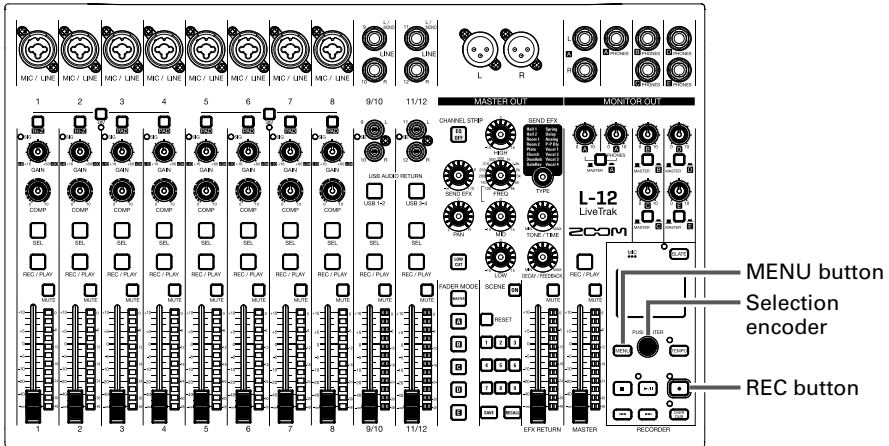>   MENU:RETURN

NOTE

Audio files cannot be deleted if protection is ON for their projects.

Exporting audio files to USB flash drives

The desired audio files can be exported from projects to USB flash drives. Exported audio files will be saved on the USB flash drive in the "AUDIO" sub-folder of the "ZOOM_L-12" folder.

MENU button

Selection encoder

REC button

1. Set ON/OFF to OFF.

- -

2. Connect the USB flash drive to the USB HOST port.

- -
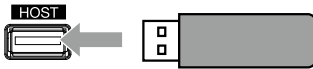
3. Set to USB HOST.

- -

4. Set ON/OFF to ON.

- -

5. Select MENU > PROJECT > FILE EXPORT.

- -

6. Use ⟳ to select the file you want to export, and press ⟱.

```
   FILE EXPORT
TRACK01.WAV
TRACK02.WAV
TRACK03.WAV
TRACK04.WAV
```

7. Edit the name.

Move cursor or change character: Turn ⟳

Select character to change/confirm change: Press ⟱

```
   FILE EXPORT

170414_121711 ▶

REC:EXECUTE      MENU:CANCEL
```

> **NOTE**
> - Audio file names have 24 characters.
> - The following characters can be used in project and file names.
>   (space) ! # $ % & ' ( ) + , - 0 1 2 3 4 5 6 7 8 9 ; = @ A B C D E F G H I J K L M N O P Q R S
>   T U V W X Y Z ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { ̄ }
> - Project/file names cannot only be spaces.

8. Press ⬤.

9. Use ⟳ to select YES, and press ⟱.

```
   FILE EXPORT
Are you sure?

    YES
    NO
        MENU:RETURN
```

> **NOTE**
> - Never disconnect a USB flash drive when "Saving" or "Loading" appears on the display.
> - Audio files will be saved on the USB flash drive in the "AUDIO" subfolder of the "ZOOM_L-12" folder.
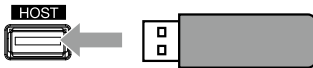
Importing audio files from USB flash drives

The desired audio files can be imported from USB flash drives to existing projects and assigned to channels.

> **NOTE**
>
> Use a computer to create "ZOOM_L-12" and "AUDIO" folders on the USB flash drive in advance (→ P.63). Only audio files inside the "AUDIO" folder can be imported.

1. Set ON POWER OFF to OFF.

2. Connect the USB flash drive to the USB HOST port.

3. Set USB HOST / CARD READER / AUDIO INTERFACE to USB HOST.

4. Set ON POWER OFF to ON.

5. Select MENU > PROJECT > FILE IMPORT.

6. Use ⊙ to select the file you want to import, and press ⊙.

FILE IMPORT
170414_121711-TRA(
170421_132534-TRA(
170512_143113-TRA(
170512_143153-TRA(

7. Use ⬤ to select the channel where you want to assign the file, and

press ⬤.

```
         IMPORT TO
TRACK01.WAV
TRACK02.WAV
TRACK03.WAV
TRACK04.WAV
             MENU:RETURN
```

NOTE

- Mono WAV files can be assigned to mono channels and stereo WAV files can be assigned to stereo channels.
- Files cannot be imported to channels that already have files assigned to them.
- When files are imported, their file names will automatically be changed according to their import channels.

---

8. Use ⬤ to select YES, and press ⬤.

```
      FILE IMPORT
Are you sure?

       YES
       NO
           MENU:RETURN
```

NOTE

Never disconnect a USB flash drive when "Saving" or "Loading" appears on the display.

Using audio interface functions

The **L-12** can be used as a 14-in/4-out USB audio interface. After applying its compressor, each input channel always outputs its signal to the corresponding USB audio channel. Channels 1–12 and the stereo signal output from the master fader are sent to the computer (14 channels total).

Installing the driver

1. Download the "ZOOM L-12 Driver" from http://www.zoom.co.jp to the computer.

> **NOTE**
> • You can download the latest "ZOOM L-12 Driver" from the above website.
> • Download the driver for the operating system that you are using.
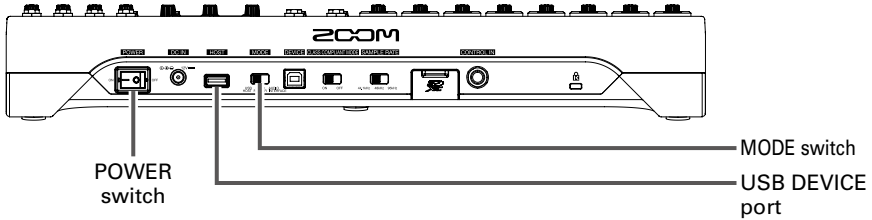
2. Launch the installer and install the driver.

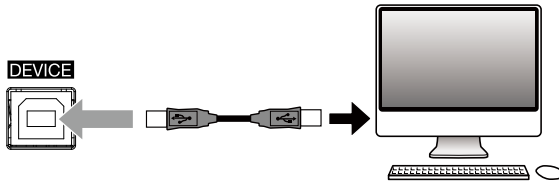Follow the instructions that appear on screen to install the ZOOM L-12 Driver.

> **NOTE**
> See the Installation Guide included in the driver package for detailed installation procedures.

Connecting to a computer

POWER switch

MODE switch

USB DEVICE port

1. Use a USB cable to connect the USB DEVICE port to the computer.

2. Set the switch to AUDIO INTERFACE.

3. Set to ON.

> **NOTE**
> • Set to ON when connected to an iOS device.
> • When connecting to an iOS device, use a Lightning to USB camera adapter (or Lightning to USB 3 camera adapter).

4. Set the **L-12** as the computer sound device.

> **NOTE**
> • See the Installation Guide included in the driver package for procedures to set the sound device in different operating systems.
> • Audio interface functions cannot be used when the sampling rate is set to 96 kHz.

## Inputting return signals from the computer to a stereo channel
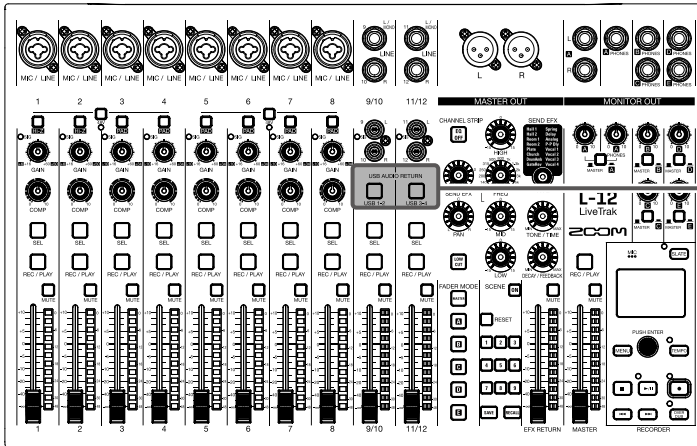
USB buttons

1. Turn the ⬜, ⬜ button channel ON for the stereo channel to use for
    USB 1-2 USB 3-4
input.

The signal controlled by the channel is switched to the USB audio channel signal (before EQ).

Using card reader functions

When connected to a computer, data on the SD card can be checked and copied.

POWER
switch

USB DEVICE
port

MODE switch
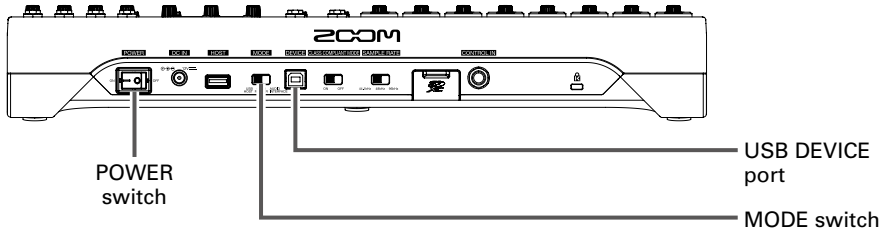
1. Use a USB cable to connect the USB DEVICE port to the computer.

2. Set [____] to CARD READER.
USB CARD AUDIO
HOST READER INTERFACE
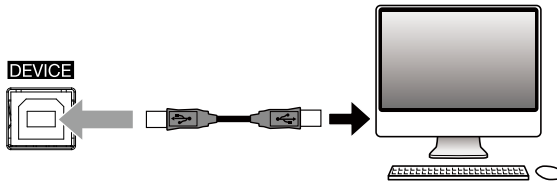
3. Set ON [___] OFF to ON.
POWER

NOTE

When operating as a CARD READER, other functions and buttons cannot be used.

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Recording and playback settings

Changing the recording format

The recording format can be changed in consideration of audio quality and file size.

1. Open MENU > REC/PLAY > REC FORMAT.

- -

2. Use ⟳ to change the format, and press 🔘.

```
   REC FORMAT
16bit
24bit


          MENU:CANCEL
```

HINT

When overwriting a recording, recording will occur at the bit depth of the original file. For example, a file recorded at 16-bit cannot be overwritten with 24-bit recording.

Changing automatic recording settings

The conditions for automatically starting and stopping recording can be set.

Setting the automatic recording start level

1. Open MENU > REC/PLAY > AUTO REC > REC START LEVEL.

....

2. Use ⟳ to change the start level, and press ⬇.

REC START LEVEL

0dB ⬍

MENU:CANCEL

Recording will start automatically when the level of the MASTER fader output signal exceeds the set level.

> **HINT**
> This can be set from −48 to 0 dB.

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Setting automatic stopping

1. Open MENU > REC/PLAY > AUTO REC > AUTO STOP.

2. Use 🔘 to select the automatic stop time, and press 🔘.

```
AUTO STOP
OFF
0sec
1sec
2sec
                MENU:CANCEL
```

HINT

This can be set to OFF or between 0 and 5 seconds.

3. Open MENU > REC/PLAY > AUTO REC > REC STOP LEVEL.

4. Use 🔘 to set the stop level, and press 🔘.

```
REC STOP LEVEL

      0dB  ⬍

                MENU:CANCEL
```

Recording will stop automatically when the level of the MASTER fader output stays below the set level for the amount of time set in step 2.

NOTE

If you start recording after setting automatic recording starting and stopping, the level set in step 4 will be shown on the MASTER level meters.

Showing recording levels on level meters

The signals of levels recorded to the recorder or recorded to a computer when using the audio interface function can be shown on the level meters of each channel.

1. Open MENU > REC/PLAY > REC LEVEL METER.

2. Use ⬤ to select ON, and press ⬤.

```
LATENCY ADJUST
OFF
ON


              MENU:CANCEL
```

> If recorded signal levels are higher than post fader levels, the recorded signal levels are shown lit dimly on the level meters.

Enabling latency adjustment

When overdubbing, adjustment can be made for the delay caused by analog-to-digital conversion, signal processing and digital-to-analog conversion.

1. Open MENU > REC/PLAY > LATENCY ADJUST.

2. Use ⬤ to select ON, and press ⬤.

```
REC LEVEL METER
OFF
ON


              MENU:CANCEL
```

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Changing the playback mode

1. Open MENU > REC/PLAY > PLAY MODE.

....

2. Use ⏺ to select the play mode, and press ⏻.

```
PLAY MODE
OFF
PLAY ONE
PLAY ALL
REPEAT ONE
                MENU:CANCEL
```

Setting value	Explanation
OFF	Only the selected project plays back. Playback continues even when the end of a file is reached.
PLAY ONE →1 (single song playback)	Only the selected project plays back. Playback stops when when the end of a file is reached.
PLAY ALL →ALL (all song playback)	Every project from the selected one to the last one will be played back.
REPEAT ONE ⮂1 (single song repeat playback)	The selected project will be played repeatedly.
REPEAT ALL ⮂ALL (all song repeat play-back)	All projects in the selected folder will be played repeatedly.

SD card settings

Checking the open space on SD cards

1. Open MENU > SD CARD > REMAIN.

This shows the open space on the card.

```
SD CARD REMAIN
0%     50%     100%
[■          ]
786MB/ 861MB
        MENU:RETURN
```
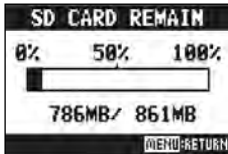
NOTE

The **L-12** shows less than the actual open space in order to maintain space to prevent SD card writing performance from degrading.

Formatting SD cards

Format SD cards for use with the **L-12**.

1. Open MENU > SD CARD > FORMAT.

2. Use ⟲ to select YES, and press ⟱.

```
SD CARD FORMAT
Are you sure?

YES
NO
        MENU:RETURN
```

NOTE

- Before using SD cards that have just been purchased or that have been formatted on a computer, they must be formatted by the **L-12**.
- Be aware that all data previously saved on the SD card will be deleted when it is formatted.
- Format an SD card before recording to it at 96 kHz.

Testing SD card performance

You can test whether SD cards can be used with the **L-12**.
A basic test can be done quickly, while a full test examines the entire SD card.
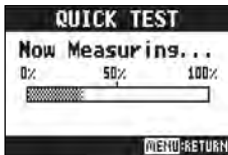
Conducting a quick test

1. Open MENU > SD CARD > PERFORMANCE TEST.

2. Use ⊙ to select QUICK, and press ⊙.

3. Use ⊙ to select YES, and press ⊙.

The card performance test will start. The test should take about 30 seconds.

```
  QUICK TEST
Now Measuring...
0%      50%     100%
[▨▨▨▨▨▨           ]

            MENU:RETURN
```

The result of the test will be shown when it completes.

```
  QUICK TEST
  Result : OK
0%      50%     100%
[▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨]

            MENU:RETURN
```
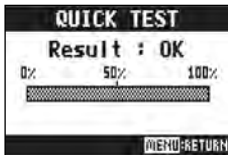
4. Press MENU to stop the test.

NOTE

Even if a performance test result is "OK", there is no guarantee that writing errors will not occur. This informa-tion is just to provide guidance.

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Conducting a full test

1. Open MENU > SD CARD > PERFORMANCE TEST.

2. Use ⟳ to select FULL TEST, and press ⟱.

The amount of time required will be shown.

3. Use ⟳ to select YES, and press ⟱.

The result of the test will be shown when it completes.
If the access rate MAX reaches 100%, the card will fail (NG).

4. Press MENU to stop the test.

> **HINT**
>
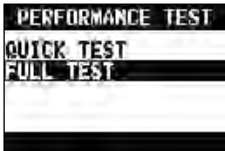> You can press ▶Ⅱ to pause and resume a test.

> **NOTE**
>
> Even if a performance test result is "OK", there is no guarantee that writing errors will not occur. This information is just to provide guidance.

Various settings

Setting the date and time

Display
MENU button
REC button
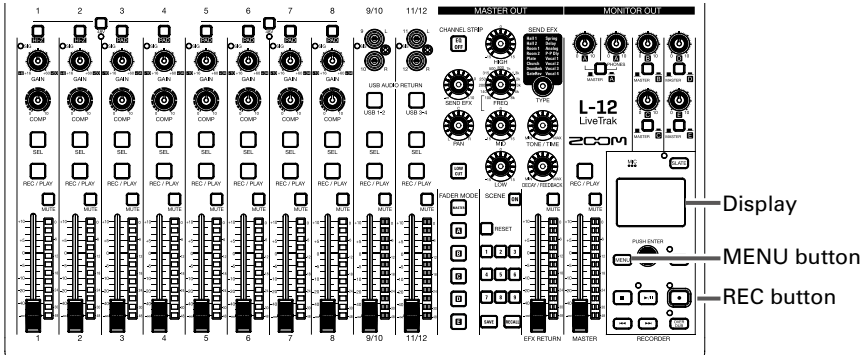
1. Select MENU > SYSTEM > DATE/TIME.

2. Set the date and time.

Move cursor or change value: Turn

Select item/confirm change: Press

DATE/TIME
YEAR MONTH DAY
2017 01 01 (SUN)

00 : 00 : 00

REC:SET   MENU:CANCEL

3. Press [•].

The first time you turn the power on after purchase, you must set the date/ time.

Setting the footswitch

If a footswitch (ZOOM FS01) is connected to the CONTROL IN jack, you can start/stop recorder playback punch in/out or mute/unmute the send effect by foot.

1. Open MENU > SYSTEM > CONTROL IN.

....

2. Use ⟳ to change the value.

```
   CONTROL IN
PLAY
PUNCH I/O
SEND EFX MUTE

            MENU:CANCEL
```

Setting value	Explanation
PLAY	Press the footswitch to start/stop playback (equivalent to ▶❙❙)
PUNCH I/O	Use to control punching in/out (equivalent to ●)
SEND EFX MUTE	Mute/unmute the send effect

Changing the sampling rate

The file format used when recording to the recorder depends on this setting.
Before changing the sampling rate, **L-12** must be set to OFF.

1. Confirm that ON [■] OFF is set to off.

2. Change the [▥] position.

> **HINT**
>
> The options are 44.1 kHz, 48 kHz and 96 kHz.

> **NOTE**
>
> • When 96 kHz is selected, some unit operations are limited. The limited functions are as follows.
>   - Recordable tracks: tracks 1–12 only
>   - SEND EFX: disabled
>   - EQ: disabled
>   - OVER DUB: disabled
>   - Audio interface: disabled
>   - MONITOR OUT: output signal same as MASTER only
> • Format an SD card before recording to it at 96 kHz.

3. Set ON [■] OFF to ON.

> **NOTE**
>
> • The sampling rate cannot be changed during operation.
> • If a project is loaded that has a different sampling rate than the unit setting, recording and playback will not be possible.

Disabling the automatic power saving function

The power will automatically turn off if the **L-12** is unused for 10 hours.
If you want the power to stay on always, disable the automatic power saving function

1. While pressing and holding [OVER DUB], set ON [POWER] OFF to ON.

2. Use ⟳ to select OFF, and press ⬇.

```
AUTO POWER OFF
OFF
ON


              MENU:CANCEL
```

> **NOTE**
>
> This setting is saved in the unit.

Adjusting the display contrast

1. Open MENU > SYSTEM > DISPLAY CONTRAST.

2. Use ⬤ to change the value.

HINT

This can be set from 1 to 10.

Restoring settings to factory defaults

You can restore an **L-12** to its factory default settings.

1. Open MENU > SYSTEM > FACTORY RESET.

2. Use ⬤ to select YES, and press ⬤.

```
FACTORY RESET
Are you sure?

    YES
    NO
        MENU:RETURN
```

NOTE

This does not reset mixer settings. (→ P.30)

Checking the firmware versions

The **L-12** firmware versions can be viewed.

1. Open MENU > SYSTEM > FIRMWARE VERSION.

This shows the firmware versions.

```
FIRMWARE VERSION

  SYSTEM   :1.00
  BOOT     :1.00
  SUBSYSTEM:1.00

             MENU:RETURN
```

Updating the firmware

The **L-12** firmware can be updated to the latest versions.

1. Copy the file for updating the firmware to the root directory on an SD card.

> **NOTE**
> An update file for the latest version can be downloaded from the ZOOM website (www.zoom.co.jp).

2. Insert the SD card into the **L-12**.

3. While pressing and holding ▶/❚❚, set ON [POWER] OFF to ON.

4. press ●.

```
UPDATE SYSTEMS

1.00 -> 1.10

Press REC Key
to execute.
             MENU:CANCEL
```
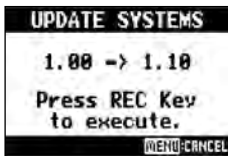
> **NOTE**
> Do not turn the power off or remove the SD card during a firmware update. Doing so could cause the **L-12** to become unstartable.

5. After the firmware update completes, turn the ON [POWER] OFF off.

```
UPDATE SYSTEM
1.00 -> 1.10
   Complete!
   ● ● ● ●
Please power off.
```

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Troubleshooting

General

There is no sound or output is very quiet

- Check the speaker connections and volume settings on the speakers.
- Check instrument and mic connections
- When using a condenser mic, turn [48V] on.
- Confirm that the SIG indicators are lit green.
- Confirm that [MUTE] is unlit.
- Raise all the channel faders and the master fader, and confirm that the level meters are lit.
- Confirm that the MASTER [REC / PLAY] is unlit and is lit red.

Recorded audio is too loud, too quiet or silent

- Adjust input gains and confirm that SIG indicators are lit green.
- When using a condenser mic, turn [48V] on.
- When recording to an SD card, confirm that [REC / PLAY] is lit red.

Recording not possible

- When recording to an SD card, confirm that [REC / PLAY] is lit red.
- Confirm that the SD card has open space.
- When recording to an SD card, confirm that the project is not protected (to prevent overwriting).

Playback sound cannot be heard or is quiet

- When playing data from an SD card, confirm that [REC / PLAY] is lit green.
- Raise the faders on the playback channels, and confirm that the level meters are lit.

The sounds of devices connected to input jacks are distorted

- Confirm that SIG indicators are not lighting red. If they are lighting, lower their input gains. You can also turn [PAD] on.
- Confirm that level meters are not lighting to their highest levels. If a level meter is lighting to its highest level, lower its fader.

The send effect is not working

- Confirm that the EFX RETURN [MUTE] is unlit.
- Raise the EFX RETURN fader, and confirm that the EFX RETURN level meters are lit.
- Confirm the send amounts of the channels on which you want to use the effect.

There is no sound or output is very quiet from MONITOR OUT A–E

- Confirm the mixes of each output.
- Confirm that the output volume of each output is raised (MONITOR OUT A PHONES and MONITOR OUT A–E knobs).
- Confirm the settings of the MONITOR OUT A–E switches.

Audio interface

Cannot select or use the L-12 device

- Confirm that the L-12 is connected to the computer correctly.
- Confirm that CLASS COMPLIANT MODE ON OFF is set to OFF on the L-12.
- Quit all the software that is using the L-12, and turn the L-12 off and on again.
- Reinstall the driver.
- Connect the L-12 directly to a USB port on the computer. Do not connect it through a USB hub.

Sound skips during playback or recording

- If you can adjust the audio buffer size of the software that you are using, increase the buffer size.
- Connect the L-12 directly to a USB port on the computer. Do not connect it through a USB hub.
- Turn the automatic sleep function and other computer power saving settings off.

Cannot play or record

- Confirm that the L-12 is connected to the computer correctly.
- Confirm that the Sound setting of the computer you are using is set to "ZOOM L-12".
- Confirm that L-12 is set for input and output in the software that you are using.
- Confirm that the ⃞ USB 1-2, ⃞ USB 3-4 is lit red and the level meters are lit for channels 9/10 or 11/12.
- Quit all the software that is using the L-12, and disconnect and reconnect the USB cable connected to the L-12.

Specifications

Number of input and output channels	**Inputs**	**Mono (MIC/LINE)**	8
		Stereo (LINE)	2
	Outputs	**MASTER OUT**	1
		MONITOR OUT	5
Inputs	**Mono (MIC/LINE)**	**Type**	XLR/TRS combo jacks (XLR: 2 HOT, TRS: TIP HOT)
		Input gain	PAD OFF: +16 – +60 dB PAD ON: –10 – +34 dB Hi-Z ON: +6 – +50 dB
		Input impedance	XLR: 3 kΩ TRS: 10 kΩ/1 MΩ (when Hi-Z ON)
		Maximum input level	PAD OFF: 0 dBu (at 0 dBFS) PAD ON: +26 dBu (at 0 dBFS)
		Phantom power	+48 V
	Stereo (LINE)	**Type**	TRS phone/RCA pin (unbalanced) jacks
		Maximum input level	+10 dBu
Outputs	**MASTER OUT**	**Type**	XLR jacks (balanced)
		Maximum output level	+14.5 dBu
		Output impedance	100 Ω
	MONITOR OUT A (TRS)	**Type**	TRS phone jacks (balanced)
		Maximum output level	+14.5 dBu
		Output impedance	100 Ω
	MONITOR OUT A–E (PHONES)	**Type**	Standard stereo phone jacks
		Maximum output level	42 mW + 42 mW at 60 Ω
		Output impedance	100 Ω
Buses		**MASTER**	1
		MONITOR	5
		SEND EFX	1
Channel strip		**COMP**	
		LOW CUT	75 Hz, 12 dB/OCT
		EQ	HIGH: 10 kHz, ±15 dB, shelving MID: 100 Hz–8 kHz, ±15 dB, peaking LOW: 100 Hz, ±15 dB, shelving
Level meters			12 segments
Send effects			16 types
Recorder		**Maximum simultaneous recording tracks**	14 at 44.1/48 kHz 12 at 96 kHz
		Maximum simultaneous playback tracks	12
		Recording format	WAV 44.1/48/96 kHz, 16/24-bit, mono/stereo WAV format
		Recording media	16 MB–2 GB SD cards, 4 GB–32 GB SDHC cards, 64 GB–512 GB SDXC cards
Audio interface		**44.1/48 kHz**	Recording: 14 channels Playback: 4 channels
		Bit depth	24-bit
		Interface	USB 2.0
Card reader		**Class**	Mass storage USB 2.0 High Speed
USB HOST		**Class**	USB 2.0 High Speed
Sampling rate			44.1/48/96 kHz
Frequency characteristics			Frequency characteristics (44.1 kHz): -1.0 dB: 20 Hz – 20 kHz Frequency characteristics (96 kHz): -3.0 dB: 20 Hz – 40 kHz
Equivalent input noise			Actual measurements: -128 dB EIN (IHF-A) with +60 dB/150 Ω input
Display			LCD with backlight (128×64 resolution)
Power supply			AD-19 AC adapter (DC12 V/2 A)
Power consumption			17 W maximum
External dimensions			445 mm (W)×282 mm (D)×70.5 mm (H)
Weight (main unit only)			2.53 kg

Send effects specifications

No	Type	Explanation	Parameters 1	Parameters 2	tempo synchronization
1	Hall 1	Hall reverb with a bright tone	TONE	DECAY	
2	Hall 2	Hall reverb with a long time for early reflections	TONE	DECAY	
3	Room 1	Room reverb with coarse reflections	TONE	DECAY	
4	Room 2	Dense room reverb	TONE	DECAY	
5	Plate	Plate reverb simulation	TONE	DECAY	
6	Church	Reverb that simulates the sound of a church	TONE	DECAY	
7	DrumAmb	Reverb that adds a natural ambience (air sound) to drums	TONE	DECAY	
8	GateRev	Special reverb suited to percussive performances	TONE	DECAY	
9	Spring	Spring reverb simulation	TONE	DECAY	
10	Delay	Digital delay with a clear tone	TIME	FEEDBACK	●
11	Analog	Warm analog delay simulation	TIME	FEEDBACK	●
12	P-P Dly	Effect that outputs delay sound alternately left and right	TIME	FEEDBACK	●
13	Vocal 1	Very useful effect that combines delay with hall reverb	TIME	DECAY	
14	Vocal 2	Effect that combines delay with mono output reverb	TIME	DECAY	
15	Vocal 3	Effect that combines delay suitable for ballads with plate reverb	TIME	DECAY	
16	Vocal 4	Effect that combines delay suitable for rock with room reverb	TIME	DECAY	

Note: Delay effects that are tempo synchronized can be synchronized to the project tempo.

To synchronize them, press the TEMPO button and set the tempo. Quarter notes will be synchronized to the tempo.

Mixer block diagram
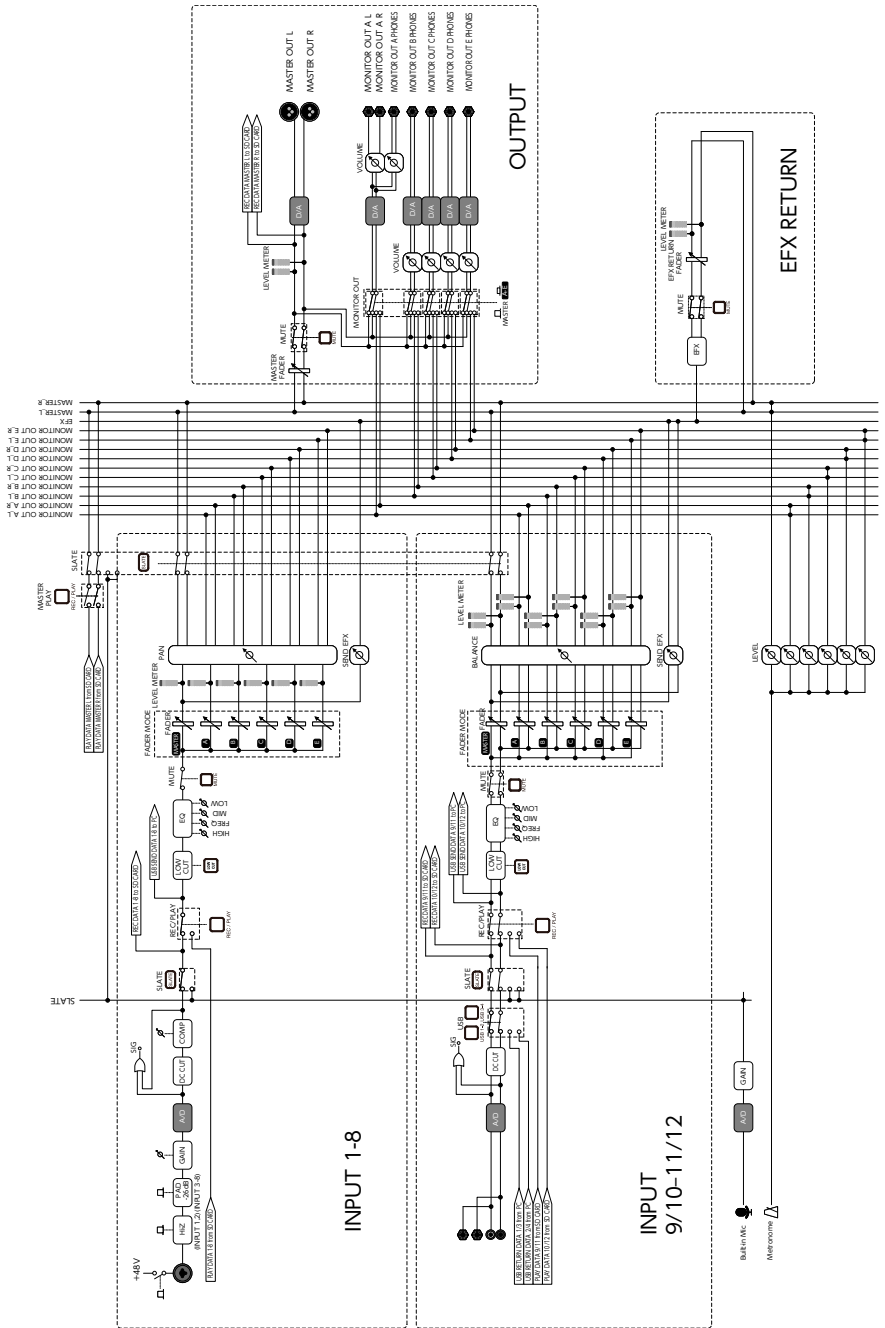
ZOOM

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