BOSS

Owner's Manual

WAZA Tube Amp Expander

技 WAZA CRAFT

English

日本語

Deutsch

Français

Italiano

Español

Português

Nederlands

USING THE UNIT SAFELY

Before using this unit, carefully read "IMPORTANT SAFETY INSTRUCTIONS" (inside front cover), "USING THE UNIT SAFELY" (p. 2), and "IMPORTANT NOTES" (p. 3). After reading, keep the document(s) where it will be available for immediate reference.

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INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠WARNING and ⚠CAUTION Notices

⚠WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

⚠	The △symbol alerts the user to important instructions or warnings.The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
⃠	The ⃠symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
●	The ●symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠ WARNING

Make sure that the power cord is grounded

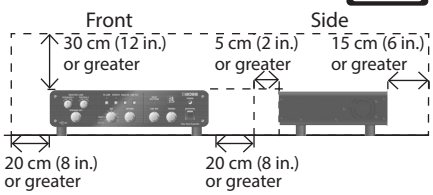
Connect mains plug of this model to a mains socket outlet with a protective earthing connection.

To completely turn off power to the unit, pull out the plug from the outlet

Even with the power switch turned off, this unit is not completely separated from its main source of power. When the power needs to be completely turned off, turn off the power switch on the unit, then pull out the plug from the outlet. For this reason, the outlet into which you choose to connect the power cord's plug should be one that is within easy reach and readily accessible.

Secure a sufficient amount of space at the setup location

Since this unit normally emits a slight amount of heat, make sure to secure sufficient space around it, as shown below.



Do not disassemble or modify by yourself

Do not carry out anything unless you are instructed to do so in the owner's manual. Otherwise, you risk causing malfunction.

Do not repair or replace parts by yourself

Be sure to contact your dealer, a Roland service center, or an official Roland dealer.

For a list of Roland service centers and official Roland dealers, refer to the Roland website.

⚠ WARNING

Do not use or store in the following types of locations

- Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
- Damp (e.g., baths, washrooms, on wet floors); or are
- Exposed to steam or smoke; or are
- Subject to salt exposure; or are
- Exposed to rain; or are
- Dusty or sandy; or are
- Subject to high levels of vibration and shakiness; or are
- Placed in a poorly ventilated location.

Do not place in a location that is unstable

When using the unit with a rack recommended by Roland, the rack must be carefully placed so it is level and sure to remain stable. If not using a stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.

Connect the power cord to an outlet of the correct voltage

The unit should be connected to a power supply only of the type described as marked on the bottom of unit.

Use only the supplied power cord

Use only the attached power cord. Also, the supplied power cord must not be used with any other device.

Do not bend the power cord or place heavy objects on it

Otherwise, fire or electric shock may result.

Avoid extended use at high volume

Use of the unit at high volume for extended periods of time may cause hearing loss. If you ever experience any hearing loss or ringing in the ears, you should immediately stop using the unit and consult a specialized physician.

⚠ WARNING

Do not allow foreign objects or liquids to enter unit; never place containers with liquid on unit

Do not place containers containing liquid (e.g., flower vases) on this product. Never allow foreign objects (e.g., flammable objects, coins, wires) or liquids (e.g., water or juice) to enter this product. Doing so may cause short circuits, faulty operation, or other malfunctions.

Turn off the unit if an abnormality or malfunction occurs

In the following cases, immediately turn off the power, remove the power cord from the outlet, and contact your dealer, a Roland service center, or an official Roland dealer for service.

- The power cord has been damaged; or
- If smoke or unusual odor occurs; or
- Objects have fallen into, or liquid has been spilled onto the unit; or
- The unit has been exposed to rain (or otherwise has become wet); or
- The unit does not appear to operate normally or exhibits a marked change in performance.

For a list of Roland service centers and official Roland dealers, refer to the Roland website.

Be cautious to protect children from injury

Always make sure that an adult is on hand to provide supervision and guidance when using the unit in places where children are present, or when a child will be using the unit.

Do not drop or subject to strong impact

Otherwise, you risk causing damage or malfunction.

Do not share an outlet with an unreasonable number of other devices

Otherwise, you risk overheating or fire.

Do not use overseas

Before using the unit in overseas, consult with your retailer, the nearest Roland service center, or an authorized Roland distributor.

For a list of Roland service centers and official Roland dealers, refer to the Roland website.

Don't block ventilation openings

Don't allow the unit's ventilation openings to be blocked by a newspaper, tablecloth, curtains, or similar objects.

Don't place burning objects on the unit

Don't place any burning object (such as a candle) on the unit.

Be aware of weather conditions

Use the apparatus in moderate climates.

⚠ CAUTION

When disconnecting the power cord, grasp it by the plug

To prevent conductor damage, always grasp the power cord by its plug when disconnecting it.

Periodically clean the power plug

An accumulation of dust or foreign objects between the power plug and the power outlet can lead to fire or electric shock.

At regular intervals, be sure to pull out the power plug, and using a dry cloth, wipe away any dust or foreign objects that may have accumulated.

Disconnect the power plug whenever the unit will not be used for an extended period of time

Fire may result in the unlikely event that a breakdown occurs.

Route all power cords and cables in such a way as to prevent them from getting entangled

Injury could result if someone were to trip on a cable and cause the unit to fall or topple.

⚠ CAUTION

Avoid climbing on top of the unit, or placing heavy objects on it

Otherwise, you risk injury as the result of the unit toppling over or dropping down.

Never connect/disconnect a power plug if your hands are wet

Otherwise, you could receive an electric shock.

Disconnect all cords/cables before moving the unit

Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.

Before cleaning the unit, disconnect the power plug from the outlet

If the power plug is not removed from the outlet, you risk receiving an electric shock.

⚠ CAUTION

Whenever there is a threat of lightning, disconnect the power plug from the outlet

If the power plug is not removed from the outlet, you risk causing malfunction or receiving an electric shock.

Keep small items out of the reach of children

To prevent accidental ingestion of the parts listed below, always keep them out of the reach of small children.

- Removable Parts
  Screws (p. 11)

Take care not to get burned

The top panel, bottom panel, front panel, and side panels may become hot, so take care to avoid burns.

The Name Plate is attached to the rear panel. Please see "Main Specifications" (p. 12) for information regarding electronic specifications.

IMPORTANT NOTES

Power Supply

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter or a motor (such as a refrigerator, washing machine, microwave oven, or air conditioner). Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This unit may interfere with radio and television reception. Do not use this unit in the vicinity of such receivers.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.
- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface.
- Do not place containers or anything else containing liquid on top of this unit. Also, whenever any liquid has been spilled on the surface of this unit, be sure to promptly wipe it away using a soft, dry cloth.

Maintenance

- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Repairs and Data

- Before sending the unit away for repairs, be sure to make a backup of the data stored within it; or you may prefer to write down the needed information. Although we will do our utmost to preserve the data stored in your unit when we carry out repairs, in some cases, such as when the memory section is physically damaged, restoration of the stored content may be impossible. Roland assumes no liability concerning the restoration of any stored content that has been lost.

Additional Precautions

- Any data stored within the unit can be lost as the result of equipment failure, incorrect operation, etc. To protect yourself against the irretrievable loss of data, try to make a habit of creating regular backups of the data you've stored in the unit.
- Roland assumes no liability concerning the restoration of any stored content that has been lost.
- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- When disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing others nearby, try to keep the unit's volume at reasonable levels.
- Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
- Do not use connection cables that contain a built-in resistor.

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- In this manual, company names and product names of the respective owners are used because it is the most practical way of describing the sounds that are emulated using DSP technology.
- Roland, BOSS, and Tube Logic are either registered trademarks or trademarks of Roland Corporation in the United States and/or other countries.
- This product contains eParts integrated software platform of eSOL Co.,Ltd. eParts is a trademark of eSOL Co., Ltd. in Japan.

Important: Caution Regarding Connections

If you use a tube amp with nothing connected to the speaker output, the vacuum tubes will be seriously damaged, and the unit might malfunction. It is extremely important to be careful with connections. To prevent your valuable tube amp, speaker, this unit, and other equipment from being damaged, you must read this section.

You must correctly connect and operate the tube amp, speaker, and other equipment. If you make a mistake with connections or operation, this unit and connected equipment might malfunction. The manufacturer accepts no responsibility for any malfunctions of this unit or a connected unit due to incorrect connections or operation.

You must turn off the power before connecting or disconnecting

- To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.
- The speaker output of the tube amp must be connected to the FROM TUBE AMP jack in the red block of this unit's rear panel. If it is connected to any other jack, this unit and the tube amp might malfunction.

- Do not power-on the tube amp when nothing is connected to the speaker output of the tube amp.
- Insert the speaker cable securely into the jack. If the cable is unconnected, or incompletely inserted into the jack, the tube amp output will be in a no-load state, possibly damaging the tube amp.

Tube amp output

- A tube amp of up to 150 W can be connected to this unit.
- If you use this unit with a tube amp whose output is greater than 150 W, this unit might be damaged; do not make such a connection.

Tube amp's volume setting

- Because this unit allows you to reduce the volume while preserving the character and feeling of the tube amp sound, it is possible that you might raise the volume of the tube amp too high, placing an excessive load on the tube amp in use. Set the volume of your tube amp appropriately. In particular, raising the volume excessively so that oscillation occurs might cause the tube amp to malfunction.

Speaker cables

- You must use speaker cables as the cables that connect the tube amp to this unit and this unit to the speaker. Do not use a shielded cable made for guitars. Doing so will cause this unit to malfunction, and the cable to smoke or ignite.

Speaker input capacity

- The power amp built into this unit has a 100 W output. Connect a speaker that has a rated input capacity of 100 W or greater.
- If you use the speaker of a 100 W or lower tube amp, you must use it at or below the volume at which you play that tube amp by itself with the speaker connected directly.

Impedance setting

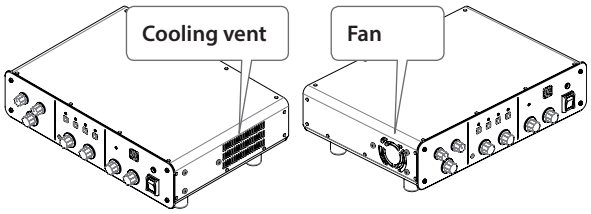
- You must set the rear panel impedance switch (p. 6) to match the output impedance of the tube amp that is connected.
  - * Before changing the setting of the impedance switch, you must turn off the power of the tube amp.

When turning the power off

- When you power-off this unit, you must also power-off the tube amp. If the tube amp's power is on while this unit's power is off, this unit and the tube amp may be damaged.

Regarding Heat Dissipation and Overheat Protection

- When this unit's internal temperature rises, a fan will operate. Do not block the cooling vents located on both sides of this unit.



- Dust tends to accumulate in the cooling vents. Remove any dust that has accumulated.

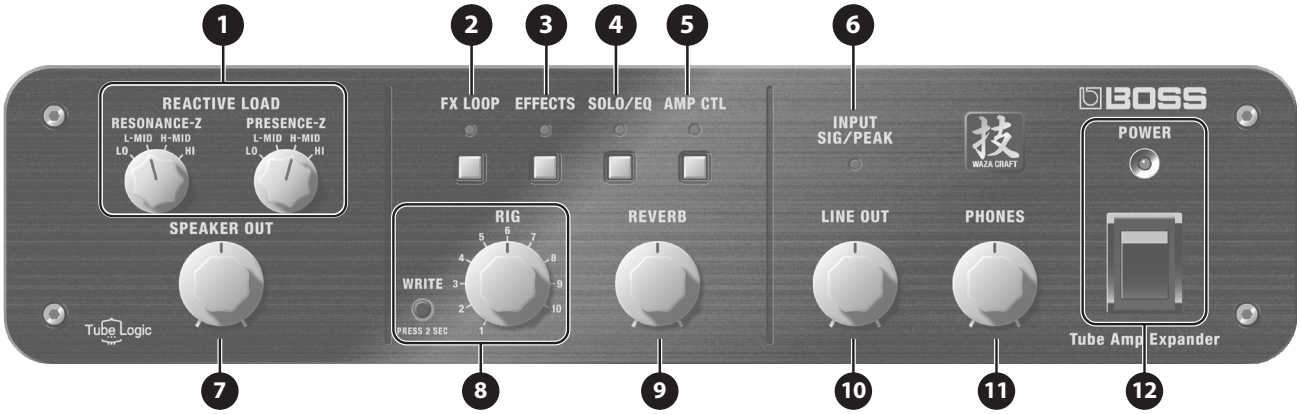
Overheat protection

- When this unit's internal temperature rises excessively, overheat protection will operate; the POWER indicator blinks yellow and this unit's output volume is limited.

- If the overheat protection has operated, you should lower this unit's SPEAKER OUT volume and the tube amp's volume. Also make sure that the cooling vents are not obstructed.
- When the internal temperature falls, overheat protection is cleared.
- If the fan stops abnormally for some reason, overheat protection will operate; the POWER indicator blinks red and this unit's output is cut. Immediately turn off the power of this unit, and check whether a foreign object might be caught in the fan. If removing the foreign object does not resolve the problem, this unit might have malfunctioned. Please contact your dealer.

Panel Descriptions

Front Panel



❶ REACTIVE LOAD

The reactive load is a load that, as seen by the tube amp, behaves like an actual speaker. In order to obtain optimal sound from a variety of tube amps, this unit lets you adjust the impedance of the reactive load.

[RESONANCE-Z] knob

Specifies the impedance response of the low-frequency region.

[PRESENCE-Z] knob

Specifies the impedance response of the high-frequency region.

MEMO

A section entitled "Recommended Setting of Reactive Load" is included at the end of this manual. You can refer to these recommended settings and customize them to your taste.

NOTE

In the case of tube amps designed with a high gain, such as the Mesa/Boogie Rectifier, the tube amp can sometimes oscillate in the low-frequency region. If this occurs, set the [RESONANCE-Z] knob to LO.

❷ [FX LOOP] button

Switches on/off an external effect (FX LOOP) that is connected to the FX LOOP SEND jack and FX LOOP RETURN jack (p. 6).

❸ [EFFECTS] button

Simultaneously turns on/off both the compressor and the delay that are built into this unit.

❹ [SOLO/EQ] button

Turns the equalizer on/off. By raising the equalizer's volume setting, you can use this as a solo button.

* The equalizer's volume can be specified by using the dedicated software.

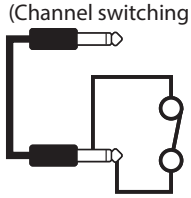
❺ [AMP CTL] button

Switches the tube amp's channel.

Off

Guitar Amplifier

(Channel switching jack)



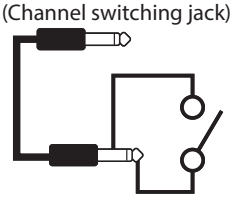
WAZA Tube Amp Expander

(AMP CONTROL jack)

On

Guitar Amplifier

(Channel switching jack)



WAZA Tube Amp Expander

(AMP CONTROL jack)

❻ INPUT SIG/PEAK indicator

Shows the level of the signal that is input to this unit's FROM TUBE AMP jack (p. 6) from the tube amp.

Color of the indicator	Explanation
Green	Lit when a signal is input.
Red	The signal level is excessive.

❼ [SPEAKER OUT] knob

Adjusts the speaker volume.

❽ RIG

A collection of settings for the effects and for AMP CTL etc. is collectively called a "rig."

[RIG] knob

Recalls rig (1–10) settings that have been saved in this unit.

[WRITE] button

Using this button, the effect and AMP CTL settings etc. that you make by operating this unit's controls can be saved as a rig (1–10).

For details on how to save a rig, refer to "Saving a Rig" (p. 8).

❾ [REVERB] knob

Adjusts the reverb depth.

❿ [LINE OUT] knob

Adjusts the volume that is output to the LINE OUT L/R jacks (p. 6).

⓫ [PHONES] knob

Adjusts the volume that is output to the PHONES jacks (p. 6).

⓬ POWER

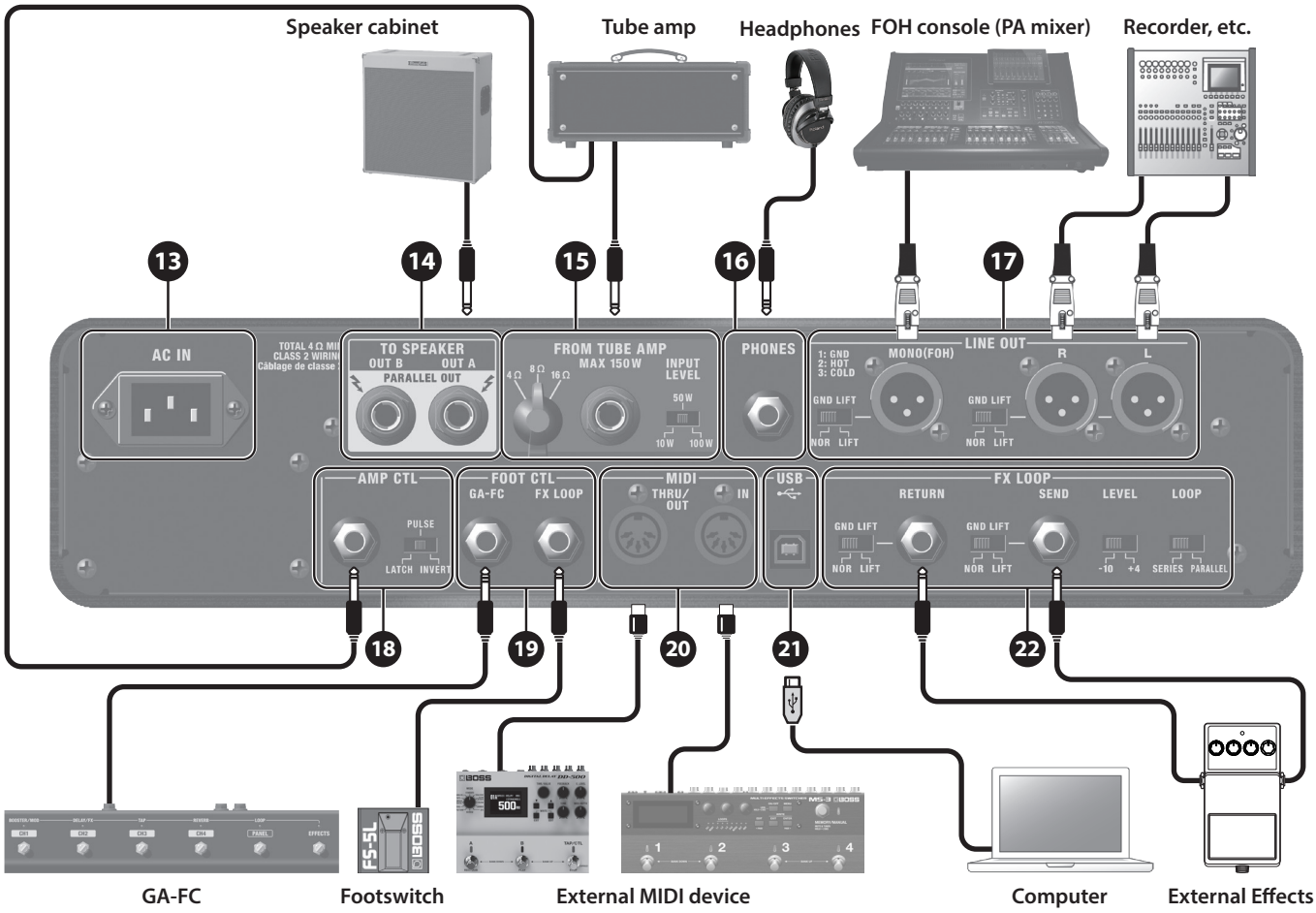
[POWER] switch

Turns the power of the WAZA Tube Amp Expander on/off.

POWER indicator

This is lit blue when the power is turned on. When overheat protection (p. 4) operates, the indicator changes to blinking yellow or red.

Rear Panel (Connecting the Equipment)



13 AC IN jack

Connect the included power cord.

* Use only the power cord that was included with the unit.

14 TO SPEAKER OUT A, B jacks

Connect speakers. OUT A and OUT B are connected in parallel. If you connect to both OUT A and OUT B, ensure that the total impedance is 4 Ω or higher. For example, if an 8 Ω speaker is connected to each of the OUT A/B jacks, the total impedance will be 4 Ω.

* If you don't need to connect a speaker, it is not a problem to leave these jacks unconnected.
* For a combo amp with the speaker and amp in a single unit, disconnect the speaker cable that is connected to the amp, and connect it to this unit's TO SPEAKER OUT A or B jack. If the speaker cable is not long enough to reach this unit, you'll need to separately obtain an extension speaker cable.

15 FROM TUBE AMP jack

Connect the tube amp's speaker output here. You can connect a tube amp whose output is up to 150 W.

If the tube amp has multiple speaker outputs, connect only this unit. If a speaker is also connected in addition to this unit, the tube amp might malfunction.

* Do not connect any equipment other than a tube amp. Doing so may cause this unit or the connected device to malfunction.

Impedance switch

Set this to match the output impedance of the tube amp that's connected. For a 2Ω tube amp, set this to 4 Ω.

* Before changing the setting of the impedance switch, you must power-off the tube amp.

[INPUT LEVEL] switch

Set this to match the output wattage of the connected tube amp. If the tube amp's output wattage is between 10 W, 50 W, and 100 W, for example if it is 20 W, input sound with either the 10 W or the 50 W setting, and use the setting for which the front panel INPUT SIG/PEAK indicator does not light red.

16 PHONES jack

Connect headphones here.

17 LINE OUT

MONO (FOH) jack

Connect this to the input of the FOH console (PA mixer). This is a mono output, and the level is fixed. The front panel [LINE OUT] knob does not affect this.

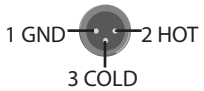
LINE OUT L/R jack

Connect this to your recording console or powered monitors.

[GND LIFT] switch

This specifies whether the ground of the LINE OUT L/R, LINE OUT MONO (FOH), SEND, and RETURN is connected to the ground of this unit. If noise occurs due to a ground loop, change the setting of this switch. Normally, you will leave it in the NOR (normal) position.

* Pin assignment of LINE OUT L/R, MONO (FOH).



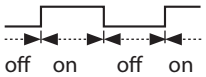
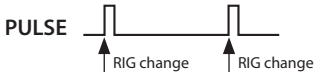
⑱ AMP CTL

AMP CTL jack

By connecting this to the channel switching jack of your guitar amp, you can switch channels from the WAZA Tube Amp Expander.

[AMP CTL] switch

Specifies the operation of the AMP CTL jack.

Value	Explanation
LATCH	Latch operation 
PULSE	Send a pulse when changing RIGs. 
INVERT	

⑲ FOOT CTL

FX LOOP jack

Here you can connect a footswitch (sold separately: FS-6, FS-7, or FS-5L) and use it to turn the external effect loop (FX LOOP) on/off.

GA-FC jack

Here you can connect a GA-FC (sold separately) and use it to switch RIGs or turn effects on/off. For details, refer to "Using the Foot Control Function" (p. 8).

⑳ MIDI IN, THRU/OUT connector

Connect an external MIDI device here. For detail refer to "Connecting with an External MIDI Device" (p. 10).

㉑ USB port

Use a USB cable to connect to a computer and exchange audio/MIDI data between the WAZA Tube Amp Expander and the computer. For detail refer to "Connecting to a Computer" (p. 10).

㉒ FX LOOP SEND/RETURN jacks

Connect an external effect device (mono). Connect the SEND jack to the input of your external effect device, and connect the output of your external effect device to the RETURN jack.

The SEND jack outputs a signal only when the [FX LOOP] button is on.

[LOOP] switch

Value	Explanation
PARALLEL	The external effects sound and the direct sound are mixed.
SERIES	Only the external effects sound is played.

* When SERIES is set, if the volume of the external effects unit is turned down completely, or the power is not turned on, no sound will be heard.

[LEVEL] switch

As appropriate for the reference level of your external effect unit, set the reference level of the SEND/RETURN jacks to either -10 dBu or +4 dBu.

Turning the Power On/Off

* Once everything is properly connected (p. 6), be sure to follow the procedure below to turn on their power. If you turn on equipment in the wrong order, you risk causing malfunction or equipment failure.

1. Make sure that this unit's SPEAKER OUT, LINE OUT, and PHONES knobs and the volume of the equipment connected to this unit are all set to 0.

2. Turn on the WAZA Tube Amp Expander.

3. Turn on the power of the tube amp.

4. Turn on the power of the other connected equipment.

Before switching off the power, lower the volume on each of the devices in your system and then TURN OFF the devices in the reverse order to which they were switched on.

* 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.
* If you need to turn off the power completely, first turn off the unit, then unplug the power cord from the power outlet. Refer to "To completely turn off power to the unit, pull out the plug from the outlet" (p. 2).

Saving a Rig

The effect and amp control settings that you make on this unit can be saved in RIG1–10.

Settings that can be saved as a rig

- FX LOOP on/off
- EFFECTS (compressor and delay) settings
- SOLO/EQ settings
- AMP CTL settings
- REVERB settings

Saving by Overwriting the Currently Selected Rig

1. Hold down the [WRITE] button two seconds or longer.

The [WRITE] button blinks red, and the settings are saved.

Saving to a Specified Rig

1. Press the [WRITE] button.

When the [WRITE] button blinks green, you can select a rig.

2. Turn the [RIG] knob to select the rig (1–10) in which you want to save the settings.

* If you decide to cancel the Write operation from this state, press the [WRITE] button.

3. Hold down the [WRITE] button for two seconds or longer.

The [WRITE] button blinks red, and the settings are saved.

* The settings are saved (overwrittten) to the rig you specified. Factory settings are also overwritten.

* You can use the dedicated software to make additional detailed settings and manage rig libraries. For detail, refer to "Connecting to a Computer" (p. 10).

* Refer to "Using WAZA Tube Amp Expander Editor" (PDF) for the list of factory-set rigs.

Restoring the Factory Settings

Here's how the settings stored in the WAZA Tube Amp Expander can be returned to their factory-set condition (factory reset).

1. While holding down the [FX LOOP] button, turn the power on.

The buttons from FX LOOP to AMP CTL will continue blinking consecutively from the left. When the blinking ends, all settings of this unit have returned to their factory-set state.

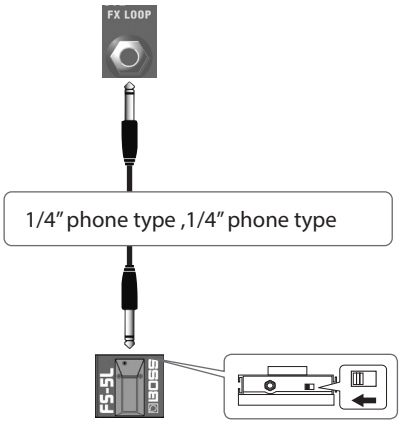
* It takes approximately 10 seconds for the factory reset to be completed. Don't turn off the power while the factory reset is in progress.

Using the Foot Control Function

FX LOOP jack

Turns EFFECT LOOP on/off (LOOP).

Rear Panel



* The WAZA Tube Amp Expander is compatible with latch-type footswitches (sold separately: FS-6, FS-7, FS-5L). If you're using an FS-6 or FS-7, set the mode of A and B to FS-5L (LATCH). Momentary-type footswitches (e.g., FS-5U) cannot be used.

GA-FC jack

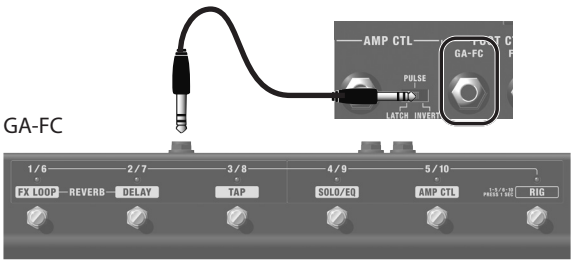
You can use a GA-FC to turn the internal effects on/off, and to select rig 1–10.

Connecting the GA-FC

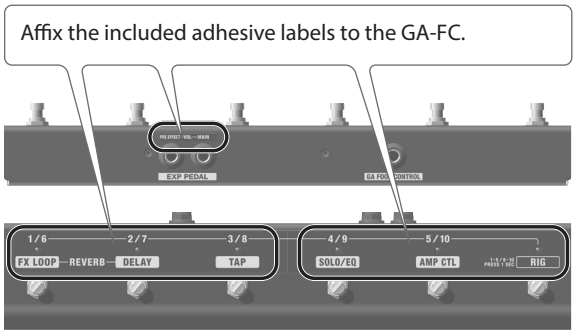
Connect a stereo cable to the GA-FC jack.

* Always use a stereo cable.

* Use cables that do not contain resistors.



Using the GA-FC



Press the [RIG] switch to alternate between Effect mode and Rig mode. In Rig mode, hold down the switch for one second or longer to switch between RIG1–5 and RIG6–10.

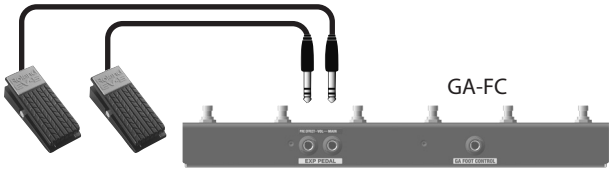
Mode	Indicator	Explanation
Effect mode	unlit	Each switch turns the effect on/off.
RIG mode (1–5)	lit	Switches rig 1–5.
RIG mode (6–10)	blinking	Switches rig 6–10.

Operation in effect mode

Switch	Explanation
FX LOOP	Turns EFFECT LOOP on/off.
FX LOOP + DELAY	Press both FX LOOP and DELAY to turn reverb on/off.
DELAY	Turns DELAY on/off.
TAP	Sets the delay time. When you press this button two or more times, the delay time is set to the interval between presses.
SOLO/EQ	Turns SOLO/EQ on/off.
AMP CTL	Turns AMP CTL on/off.

Using the expression pedals

If an expression pedal (sold separately: Roland EV-5, BOSS FV-500L, BOSS FV-500H, BOSS EV-30) is connected, you can use the pedal to change the volume. If two pedals are connected, you can change the pre-effect volume (before effects are applied) and the main volume (SPEAKER OUT and LINE OUT).

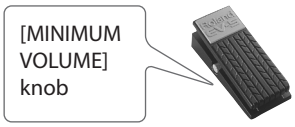


Expression Pedal

Jack	Explanation
PRE EFFECT	Adjusts the pre-effect volume (before the internal effects).
MAIN	Adjusts the main volume (SPEAKER OUT and LINE OUT).

Setting MINIMUM VOLUME of an expression pedal

With the **[MINIMUM VOLUME]** knob of an expression pedal, you can set the value for when the pedal is lifted up all the way (lowest value).



* Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
* By using the dedicated software, you can specify the volume curve of the expression pedal. For details, refer to "Using WAZA Tube Amp Expander Editor" (PDF).

Connecting with an External MIDI Device

On the WAZA Tube Amp Expander, you can use MIDI to perform the following operations.

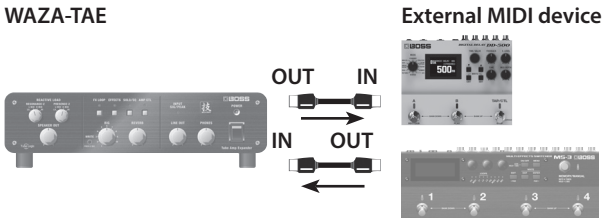
Operations from the WAZA Tube Amp Expander

Operation	Explanation
Transmit program change messages	When you select a RIG on the WAZA Tube Amp Expander, the program change message specified by RIG MIDI is also transmitted. The external MIDI device that receives this program change message will switch to the corresponding settings.
Transmit control change messages	When you select a RIG on the WAZA Tube Amp Expander, the control change message specified by RIG MIDI is also transmitted. Operations of expression pedals connected to the GA-FC foot controller are transmitted as control change messages. These messages can control parameters on an external MIDI device.

Operations from an External MIDI Device

Operation	Explanation
Switch RIG numbers	When the WAZA Tube Amp Expander receives a program change message from an external MIDI device, the WAZA Tube Amp Expander will change RIGs.
Receive control change messages	The WAZA Tube Amp Expander can receive control change messages to control a specified parameter while you perform.

Connection example



For details on MIDI, refer to "Using WAZA Tube Amp Expander Editor" (PDF).

Connecting to a Computer

By connecting the WAZA Tube Amp Expander to a computer via USB, you can do the following.

- Transmit and receive digital audio signals between the computer and the WAZA Tube Amp Expander
- Edit and manage RIGs, and display the download page for the "WAZA Tube Amp Expander Owner's Manual" (PDF) on a computer using the dedicated software

Installing the USB Driver

You must install the USB driver before connecting to a computer.

Please download the USB driver from the website shown below.

Install this special driver before making a USB connection. For further details, refer to the Readme.htm file that comes with the download.

➡ **https://www.boss.info/support/**

The program you need to use, and the steps you need to take to install the USB driver will differ depending on your computer setup, so please carefully read and refer to the Readme.htm file that comes with the download.

Using the WAZA Tube Amp Expander as an Audio Interface

You can record the sound of the WAZA Tube Amp Expander on your computer, or have sound from your computer be output from the OUTPUT jacks.

* For details of the audio signal flow when connected via USB and instructions on how to make settings, refer to "Using WAZA Tube Amp Expander Editor" (PDF).

* Refer to the instruction manual for the software you are using to learn how to switch the input source of the software.

Making use of the dedicated software

Please download the dedicated software from the website shown below.

➡ **https://www.boss.info/support/**

Using the dedicated software allows you to do the following:

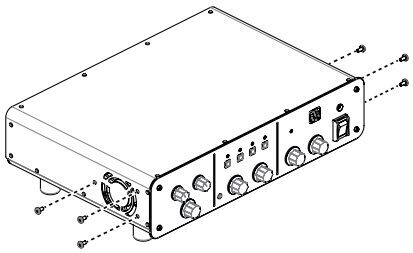
- Edit RIG settings
- Name RIGs
- Organize RIGs in order and switch them around
- Back up RIGs and system settings, and return to the backed up settings
- Load up to 32 IR data sets into this unit.
- View the download page for the WAZA Tube Amp Expander Owner's Manual.

About Rack Mounting

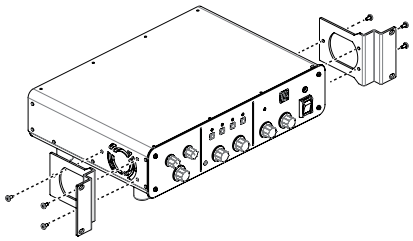
By attaching the included rack-mount angles to this unit, you can mount it in a rack.

Attaching the rack-mount angles

1. Remove the screws from the side panels.



2. Using the screws that you removed, attach the rack-mount angles as shown in the illustration.



* When attaching, use only the screws that you removed.

* Do not remove any other screws.

Mounting in a general-purpose rack

* To allow heat dissipation, you must leave 1U or more space above and below this unit.

Important notes on rack mounting

- Install in a well-ventilated location.
- Do not block the cooling vents located on the unit's side panels.
- Avoid mounting the unit in a sealed-type rack. Warm air within the rack cannot escape and is sucked into the unit, making efficient cooling impossible.
- If the back of the rack cannot be opened, install an exhaust port or ventilation fan at the top back surface of the rack, where warm air collects.
- When using the unit while mounted in a movable case (portable rack), remove the front and rear rack covers so that the front and back of the unit are not obstructed.
- Take care not to pinch your fingers etc. while mounting the unit in a rack.

Main Specifications

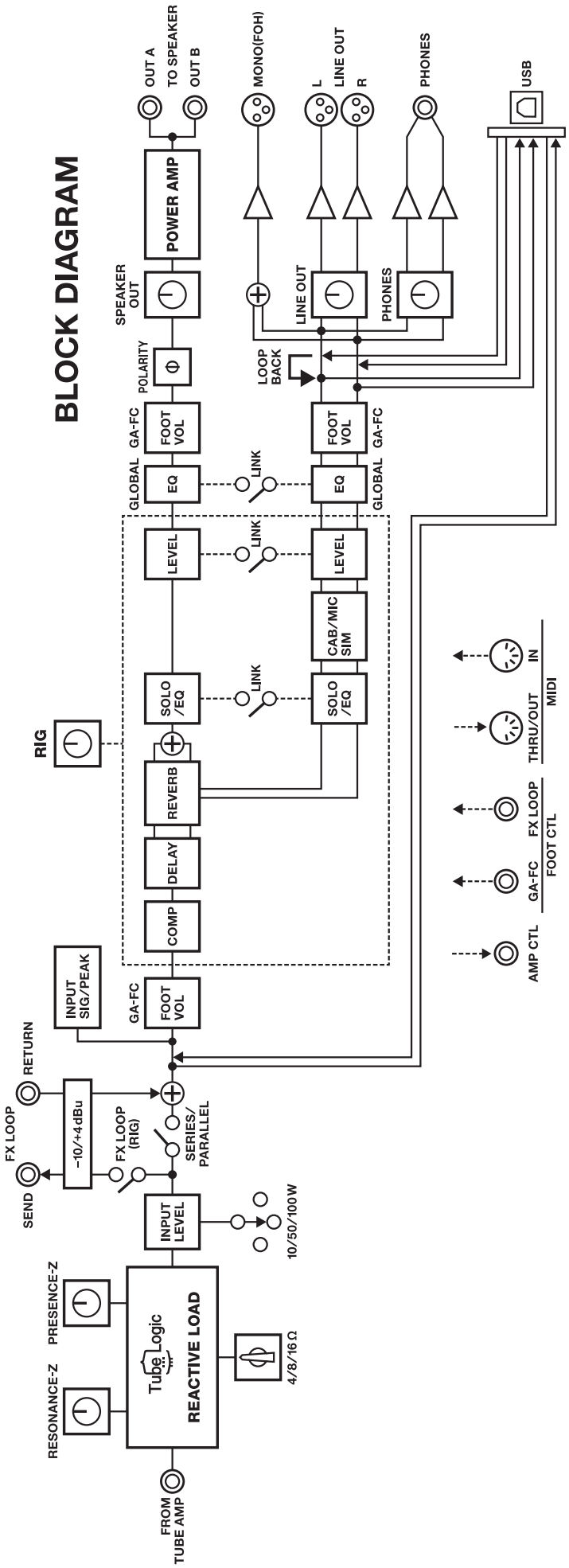
BOSS WAZA Tube Amp Expander (WAZA-TAE): Tube Amp Expander

Maximum Input Power	FROM TUBE AMP: 150 W
Safety Load (power off)	FROM TUBE AMP: 16 Ω
Rated Power Output	TO SPEAKER: 100 W (8 Ω)
Load Impedance	TO SPEAKER: 4–16 Ω
Input Impedance	FROM TUBE AMP: 4/8/16 Ω (selectable) FX LOOP RETURN: 1 MΩ
Output Impedance	LINE OUT L/R: 600 Ω LINE OUT MONO (FOH): 600 Ω FX LOOP SEND: 1 kΩ
Nominal Output Level	LINE OUT L/R: +4 dBu LINE OUT MONO (FOH): +4 dBu
FX LOOP Nominal Output Level	-10/+4 dBu (selectable)
Maximum Output Level	LINE OUT L/R: +20 dBu LINE OUT MONO (FOH): +20 dBu FX LOOP SEND: +6 dBu (-10) /+20 dBu (+4)
Controls	POWER switch SPEAKER OUT knob LINE OUT knob PHONES knob RESONANCE-Z knob PRESENCE-Z knob RIG knob REVERB knob FX LOOP button EFFECTS button SOLO/EQ button AMP CTL button SPEAKER IMPEDANCE switch INPUT LEVEL switch L/R GND LIFT switch MONO (FOH) GND LIFT switch LOOP switch LEVEL switch SEND GND LIFT switch RETURN GND LIFT switch AMP CTL switch

Indicators	POWER WRITE FX LOOP EFFECTS SOLO/EQ AMP CTL INPUT SIG/PEAK
Connectors	FROM TUBE AMP jack: 1/4-inch phone type SPEAKER OUT jacks (OUT A, OUT B): 1/4-inch phone type LINE OUT L/R connectors: XLR type LINE OUT MONO (FOH) connector: XLR type PHONES jack: Stereo 1/4-inch phone type SEND jack: 1/4-inch phone type RETURN jack: 1/4-inch phone type FX LOOP jack: 1/4-inch phone type GA-FC jack: 1/4-inch TRS phone type AMP CTL jack: 1/4-inch phone type USB COMPUTER port: USB B type MIDI (IN, THRU/OUT) connectors AC IN jack
Power Consumption	100 W
Dimensions (including foots)	380 (W) x 296 (D) x 110 (H) mm 15 (W) x 11-11/16 (D) x 4-3/8 (H) inches
Weight	6.8 kg 15 lbs
Accessories	Owner's manual Power cord Rack mount angle x 2 (for EIA-2U) GA-FC sticker
Options (sold separately)	Footswitch: BOSS FS-5L Expression pedal: Roland EV-5, BOSS FV-500H, BOSS FV-500L, BOSS EV-30 GA Foot Controller: BOSS GA-FC

* 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.

Block Diagram



Recommended Setting of Reactive Load

Tube Amp	Cabinet	RESONANCE-Z	PRESENCE-Z
R-FIER STACK (MESA/Boogie Rectifier)	4x12" CLOSED	LO	LO
HIGH GAIN STACK (Friedman BE-100)	4x12" CLOSED	H.MID	L.MID
BRIT STACK (Marshall JCM800)	4x12" CLOSED	HI	HI
CLASSIC STACK (Marshall 1987)	4x12" CLOSED	H.MID	HI
SUPER COMBO (Fender Super Reverb)	4x10"	L.MID	L.MID
TWEED COMBO (Fender Bassman)	4x10"	H.MID	H.MID
DIAMOND AMP (VOX AC-30)	2x12"	H.MID	HI
TWEED DELUXE (Fender Tweed Deluxe)	1x12"	L.MID	HI
DELUXE COMBO (Fender Deluxe Reverb)	1x12"	L.MID	H.MID
MINI COMBO (Fender Champ)	1x8"	L.MID	H.MID