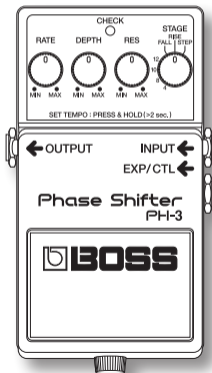


# PH-3 Phase Shifter

## Owner's Manual



Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (supplied on a separate sheet). After reading, keep the document(s) where it will be available for immediate reference.

 **BOSS**

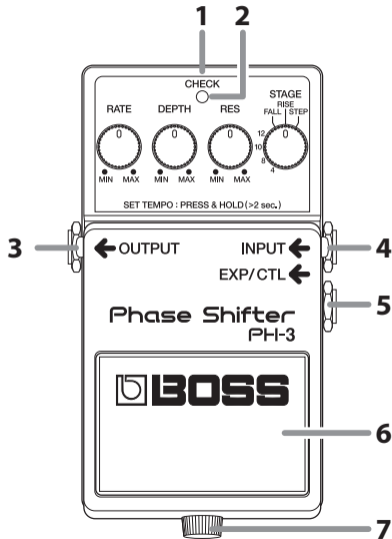
## Main Features

- In addition to the standard four setting types available on previous phasers (4-/8-/10-/12-stage), the PH-3 adds further features, including new RISE and FALL effects and a STEP setting which changes the effect in steps, for a total of seven switchable phase effects (an effect that adds a cyclic sensation to the sound).
- New RISE/FALL features give you continuous rising and falling effects unavailable with previous phasers.
- You can use the PH-3's pedal to set the RATE to the tempo. This makes it easy to sync to songs (tempo and measure), formerly a difficult process.
- Includes an expression/control jack. You can connect an expression pedal (Roland EV-5, BOSS EV-30; sold separately) to this jack and make continuous changes to the RATE for a rotary speaker-like sound, while connecting a foot switch (BOSS FS-5U; sold separately) allows you to match the rate to the tempo.

This device will enter Sleep mode (power conservation mode) when ten hours have elapsed since the last operation, or since the last audio input while in Stop mode.

If you want to prevent the device from entering Sleep mode, carry out the procedure described on p. 12.

## Panel Descriptions



## 1. DC IN jack

Accepts connection of an AC Adaptor (PSA series; sold separately). By using an AC Adaptor, you can play without being concerned about how much battery power you have left.

- \* As soon as you connect the AC adaptor, the unit is turned on.
- \* We recommend that you keep batteries installed in the unit even though you'll be powering it with the AC adaptor. That way, you'll be able to continue a performance even if the cord of the AC adaptor gets accidentally disconnected from the unit.
- \* Use only the specified AC adaptor (PSA-series).
- \* If the AC adaptor is connected while power is on, the power supply is drawn from the AC adaptor.

## 2. CHECK indicator

Combination indicator that shows the effect's on/off status, tempo (in Tempo mode: p. 9), and Battery Check function. The indicator is lit when the effect is on, thereby allowing you to check whether the effect is on or off. The indicator lights when an effect is ON.

- \* If the indicator dims when the effect is on or when the tempo is being displayed, it means that the battery is running out of reserve; when this occurs, replace with fresh batteries. For instructions on changing the batteries, refer to "Changing the Battery" (p. 11).

- \* The CHECK indicator shows whether the effect is being applied or not, and is used to indicate other effects. It does not indicate whether the power to the device is on or not.

## 3. OUTPUT jack

Connect an amplifier to this jack.

## 4. INPUT jack

This jack accepts input signals (coming from a guitar, some other musical instrument, or another effects unit).

- \* When a battery is used, the INPUT jack also functions as a power switch. When a plug is inserted into the INPUT jack, the power will be turned on. When the plug is pulled out, the power will be turned off. When you are not using the unit, pull the plug out of the INPUT jack.

## 5. EXP/CTL jack

Accepts connection of an expression pedal (Roland EV-5; sold separately) or momentary- type foot switch (BOSS FS-5U; sold separately). Use the EV-5 to change the RATE continuously. Setting tempos is easy with the FS-5U.

- \* For details, refer to "Using the EXP/CTL Jack" (p. 10).

## Panel Descriptions

### 6. Pedal Switch

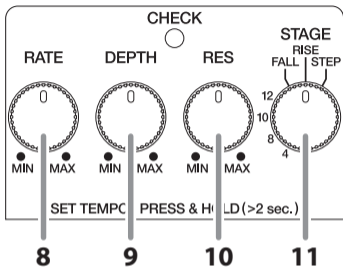
Used for switching effects on/off, and for inputting the tempo.  
When the effect is on, be sure to start any changes with the filter at the lowest setting.

- \* For inputting the tempo, refer to "Setting the Tempo with the PH-3's Pedal Switch" (p. 9).

### 7. Thumbscrew

When this screw is loosened, the pedal will open, allowing you to change the battery.

- \* For instructions on changing the battery, refer to "Changing the Battery" (p. 11).



### 8. RATE knob

Adjusts the speed at which the filter changes.  
When set to MIN, the filter remains off.

### 9. DEPTH knob

Adjusts the depth of the filter change.  
The filter effect stops when this is set to MIN with the STAGE switch set to anything besides FALL or RISE.

## 10. RES (Resonance) knob

Adjusts the strength of the filter effect. The effect sound becomes stronger the further the knob is turned clockwise.

- \* **Raising the RES setting (turning it clockwise) makes it easier for the sound to become distorted. If it appears that the sound is becoming distorted, try lowering the RES setting.**

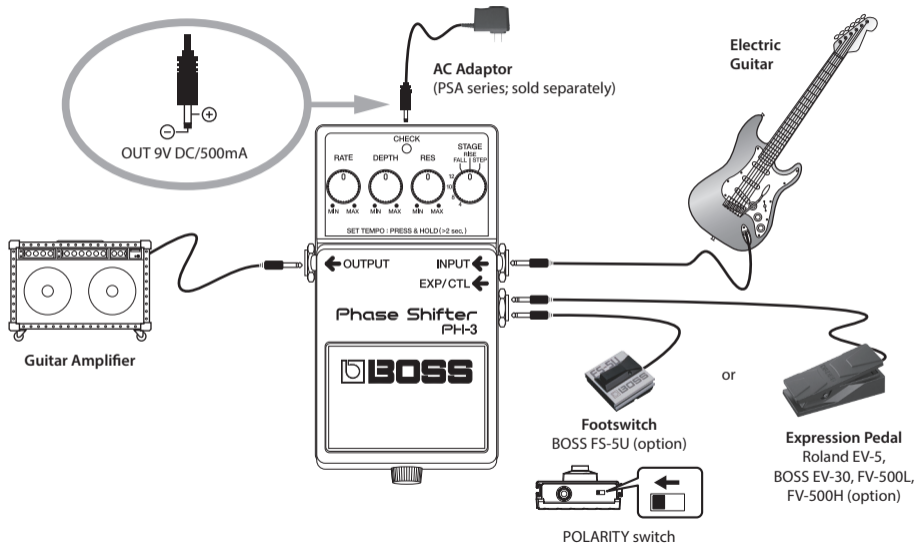
## 11. STAGE switch

Selects the number of phase steps and the phase type. The higher the number, the more depth the phaser effect has.

Type	Explanation
4	4-stage phaser; a light, vintage phaser effect with a classic feel.
8	8-stage phaser that gives a balanced phaser sound.
10	10-stage phaser providing a deep phaser effect.
12	12-stage phaser, with two sixstage phasers connected in series for a powerful phaser effect.
FALL	Phase effect featuring a continuously falling sensation.
RISE	Phase effect that imparts a continuously rising sensation.

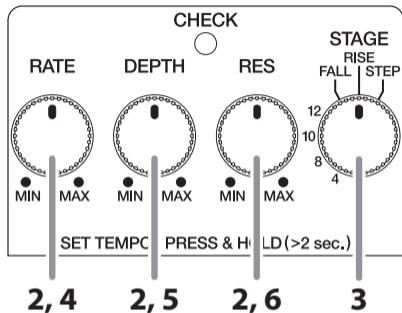
Type	Explanation
STEP	Phase effect whereby filter modifications occur in a non-consecutive manner. This can provide some really unique, illusional effects.

# Connections



- \* Inserting a plug into the INPUT Jack will automatically switch the unit on.
- \* To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.
- \* Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
- \* Once you've gotten hooked up correctly, be sure to observe the following order when switching on the power to your equipment. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.
  - When powering up: Turn on the power to your guitar amp last.
  - When powering down: Turn off the power to your guitar amp first.
- \* 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.
- \* When operating on battery power only, the unit's indicator will become dim when battery power gets too low. Replace the battery as soon as possible.
- \* If you handle batteries improperly, you risk explosion and fluid leakage. Make sure that you carefully observe all of the items related to batteries that are listed in "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (supplied on a separate sheet).
- \* The use of an AC adaptor is recommended as the unit's power consumption is relatively high.
- \* A battery was installed in the unit before it left the factory. The life of this battery may be limited, however, since its primary purpose was to enable testing. If operating this unit on batteries, please use alkaline batteries.

# Operating the Unit



1. When you have finished making the connections (p. 6), press the pedal switch to turn the effect on. (the CHECK indicator is lit).
2. Set the RATE, DEPTH, and RES knobs at the center position.
3. Use the STAGE switch to select the stage type.

4. With the RATE knob, adjust the speed of the filter change.
  - \* When set to MIN, the filter remains off.
5. With the DEPTH knob, adjust the depth of the filter change.
  - \* The filter effect stops when this is set to MIN with the STAGE switch set to anything besides FALL or RISE.
6. With the RES (Resonance) Knob, adjust the strength of the filter effect.
  - \* Raising the RES setting (turning it clockwise) makes it easier for the sound to become distorted. If it appears that the sound is becoming distorted, try lowering the RES setting.



# Setting the Tempo with the PH-3's Pedal Switch

- \* RATE cycles for use with the tempo settings can be made in the range of 0.2–16 seconds.

## 1. Step on, and continue depressing the PH-3's pedal switch for at least two seconds.

If the pedal switch is pressed when the effect is on, the CHECK indicator goes out, and the effect is turned off for two seconds. If the pedal switch is pressed when the effect is off, the CHECK indicator turns red, and the effect is turned on for two seconds.

- \* For switching without the normal stress and hassle of turning effects on and off, when you go into the tempo setting mode while the effect is on, the effect is first switched off for two seconds, and the PH-3 switches to tempo setting mode.

## 2. The CHECK indicator then flashes in red and green, and the tempo can then be set with the effect on.

- \* Here, the tempo is indicated by the value set with the RATE knob.

## 3. Press the PH-3's pedal switch in timing with the tempo.

The CHECK indicator then flashes in red and green in time with the tempo.

- \* When the pedal switch is pressed, the filter is completely

lowered (except when set to RISE or FALL). When using this, even if the RATE (as shown by the flashing CHECK indicator) is off slightly from the tempo, you can match the RATE to the tempo with one step on the PH-3's pedal.

### MEMO

Setting the RATE near the desired tempo beforehand allows you to make faster and more natural tempo settings.

## 4. Press and continue holding the PH-3's pedal switch for two seconds or longer to finish setting the tempo.

The effect goes on, and instead of flashing in red and green, the CHECK indicator will light steadily in red.

- \* When you have finished setting the tempo, the RATE changes to the value for the tempo setting made with the pedal, so the value will differ from the value indicated by the RATE knob.
- \* When changed with the RATE knob, the tempo is then the same as the value for the RATE knob.

# Using the EXP/CTL Jack

- \* When an EV-5 or FS-5U is connected to the EXP/CTL jack, the PH-3's own pedal switch then only turns the effect on and off.
- \* When disconnecting from the EXP/CTL jack, the RATE (tempo) settings used up to that point are cleared, with the RATE knob setting then becoming effective.

## When Connecting the (Optional) Roland EV-5

The RATE settings can be adjusted with the EV-5. You can change from the minimum RATE value set by the EV-5's Minimum Value to the value set with the PH-3's RATE knob.

1. Connect the EV-5 to the EXP/CTL jack, and press the pedal completely forward. The adjustment made with the RATE knob in this condition determines the maximum RATE value when controlled with the EV-5.



2. Return (raise) the pedal completely back so the heel is down. The adjustment made with the RATE knob at this point determines the minimum RATE value when controlled with the EV-5.



## When Connecting the (Optional) BOSS FS-5U

The tempo can be set with the FS-5U.

Concerning how to make the tempo settings, refer to steps 3 and 4 under "Setting the Tempo with the PH-3's Pedal Switch" (p. 9). Simply substitute "FS-5U" where it says "PH-3's pedal switch."

- \* The PH-3's pedal switch switches the effect on and off. When the effect is on, the CHECK indicator flashes alternately in red and green.
- \* If you turn the RATE after setting the tempo with the FS-5U, the RATE knob value is then adjusted.
- \* You can also make the tempo settings with the effect off.
- \* Set the polarity switch of the connected the FS-5U as shown in the figure below.

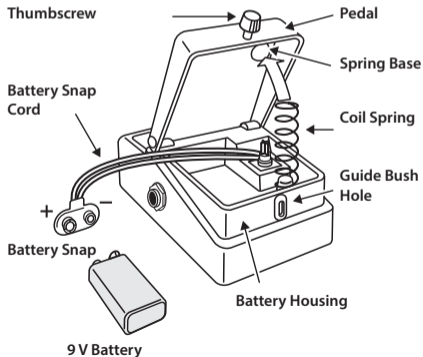


POLARITY switch

# Changing the Battery

When the CHECK indicator goes dim or no longer lights while an effect is on, it means that the battery is nearly dead and must be replaced. Replace the battery following the steps below.

- \* The use of an AC adaptor is recommended as the unit's power consumption is relatively high.
- \* A battery was installed in the unit before it left the factory. The life of this battery may be limited, however, since its primary purpose was to enable testing. If operating this unit on batteries, please use alkaline batteries.



**1. Hold down the pedal and loosen the thumbscrew, then open the pedal upward.**

- \* The pedal can be opened without detaching the thumbscrew completely.

**2. Remove the old battery from the battery housing, and remove the snap cord connected to it.**

**3. Connect the snap cord to the new battery, and place the battery inside the battery housing.**

- \* Be sure to carefully observe the battery's polarity (+ versus -).

**4. Slip the coil spring onto the spring base on the back of the pedal, and then close the pedal.**

- \* Carefully avoid getting the snap cord caught in the pedal, coil spring, and battery housing.

**5. Finally, insert the thumbscrew into the guide bush hole and fasten it securely.**

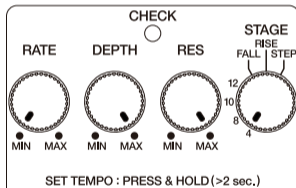
# About Sleep Mode

When ten hours have elapsed since the last operation or audio input, the PH-3 will enter sleep mode (power conservation mode; only the bypass sound will be output).

From sleep mode, you can press the pedal to return to normal mode.

## Disabling Sleep Mode

1. Set the knobs to the positions shown below.



2. While holding down the pedal, turn on the power.

### When running on battery power

Insert the connection plug into the INPUT jack.

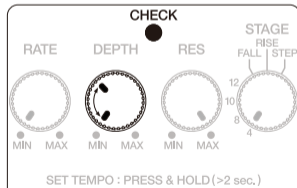
### When running on power from an AC adaptor

Insert the AC Adaptor plug into the AC Adaptor jack.

The CHECK indicator will start blinking.

3. While continuing to depress the pedal, move the DEPTH knob so it's within the range illustrated below.

The CHECK indicator will go out.

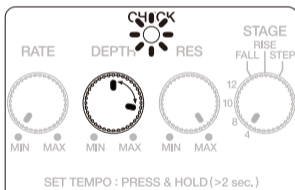


4. Release the pedal to complete the procedure.

## Enabling Sleep Mode (default setting)

1. Carry out the same procedure as described in steps 1 and 2 under "Disabling Sleep Mode."
2. While continuing to depress the pedal, move the DEPTH knob so it's within the range illustrated below.

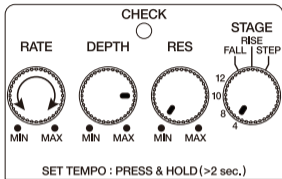
The CHECK indicator will light.



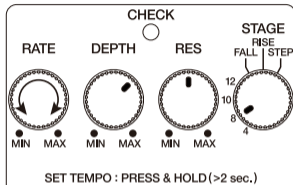
3. Release the pedal to complete the procedure.
- \* Battery power continues to be consumed even in sleep mode. To prevent battery consumption, turn off the power by removing the plug from the INPUT jack.

# Setting Samples

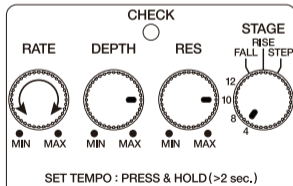
## Vintage Phase Shift 1



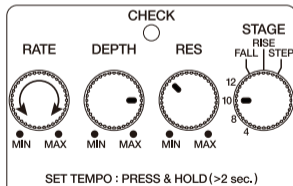
## Standard Phase Shift



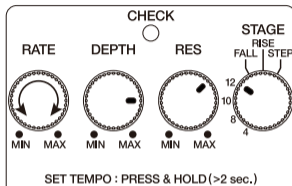
## Vintage Phase Shift 2



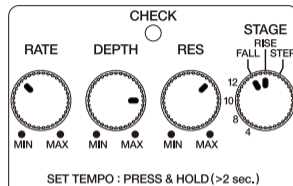
## Deep Phase Shift



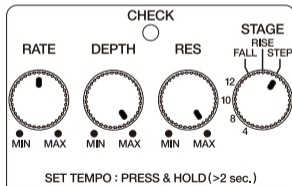
## Hard Resonance Sound



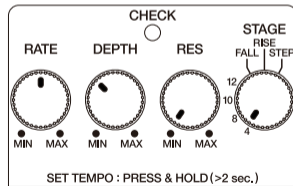
## Standard FALL/RISE Sound



## Random Step Sound



## Tremolo Sound



# Main Specifications

## BOSS PH-3: Phase Shifter

Nominal Input Level	-20 dBu
Input Impedance	1 M $\Omega$
Nominal Output Level	-20 dBu
Output Impedance	1 k $\Omega$
Recommended Load Impedance	10 k $\Omega$ or greater
Power Supply	DC 9 V: Dry battery 6F22 (9 V) type (carbon)/Dry battery 6LR61 (9 V) type (alkaline), AC Adaptor (PSA-series: optional)
Current Draw	40 mA (DC 9 V) * <b>Expected battery life under continuous use:</b> <b>Carbon: 2 hours</b> <b>Alkaline: 10 hours</b> <b>These figures will vary depending on the actual conditions of use.</b>
Dimensions	73 (W) x 129 (D) x 59 (H) mm 2-7/8 (W) x 5-1/8 (D) x 2-3/8 (H) inches
Weight	420 g /15 oz (including Battery)

Accessories	Owner's Manual Leaflet ("USING THE UNIT SAFELY," "IMPORTANT NOTES," and "Information") Dry battery/9 V type (6F22)
Options	AC adaptor: PSA series Expression pedal: Roland EV-5/BOSS EV-30, FV-500L, FV-500H Footswitch (momentary-type): BOSS FS-5U Dry battery 6LR61 (9 V) type (alkaline)

- 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.**