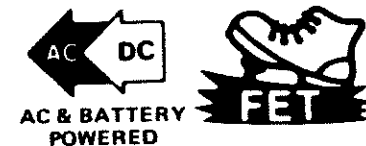


BOSS

PH-2
SUPER
Phaser

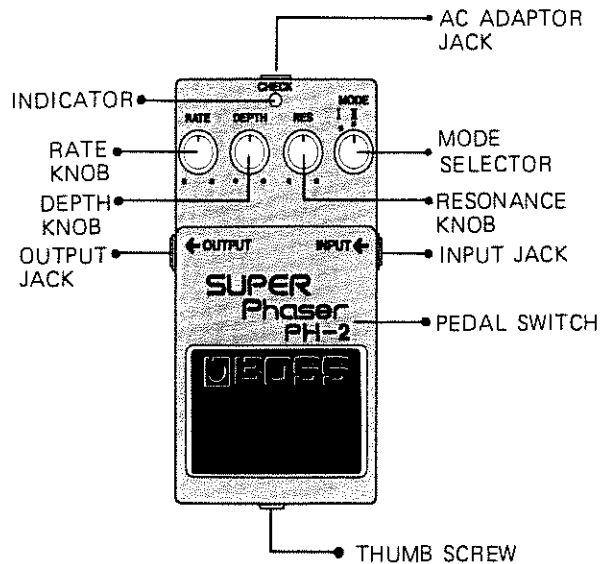
INSTRUCTIONS



- Please read these instructions carefully.

PANEL DESCRIPTIONS

The BOSS Phaser PH-2, featuring 12 stage phase shift circuits, allows stronger effect than any other phase shifting unit. Two completely different phase effects are optional just by changing the position of the knob. Adopting antilogarithm circuit in the filter, the PH-2 gives smooth modulation effect. The indicator lights up when the effect is on, so that you can at a glance tell whether the effect is on or off.



AC ADAPTOR JACK

Connect an AC Adaptor (BOSS ACA-120, 220 or 240) to this jack, and the PH-2 operates from the mains.

RATE KNOB

This knob controls the rate of the phase shift effect. At the fully clockwise position, phase effect of 100ms is obtained. As you rotate the knob counterclockwise, the rate slows down up to 14s.

OUTPUT JACK

Through this jack, signal is fed to an amplifier.

PEDAL SWITCH

Pressing this pedal turns on the effect, and pressing it again turns the effect off. * Adopting FET electronic switch, this is free from click noise.

INDICATOR

This indicator lights up when the effect is turned on, therefore you can tell at a glance whether the effect is on or off. This also serves as battery check. If the indicator becomes dimmer or does not light at all, battery replacement is required.

DEPTH KNOB

This knob controls the depth of phase shift effect. Rotating this clockwise deepens the effect.

RESONANCE KNOB

This knob controls the amount of feed back signal. Rotating this clockwise emphasizes the phase shift effect, therefore the created sound will be more unusual.

MODE SELECTOR

In the Mode I position, phase sound, deeply swelling from high frequency to low, is obtained. The Mode II is a phase sound with sharp phase shifting effect.

INPUT JACK

Connect a guitar or other electronic musical instrument to this jack.

THUMB SCREW

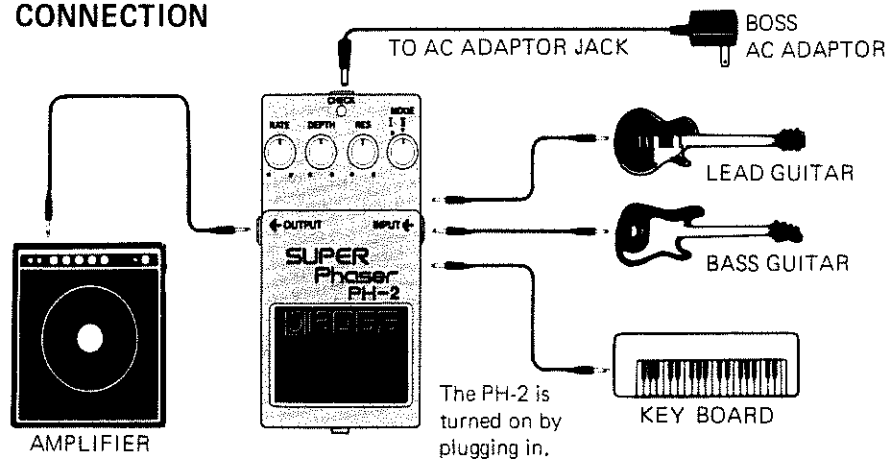
Loosen this screw to open the pedal for battery replacement.

* Do not remove the screw from the pedal, or you may lose it.

IMPORTANT

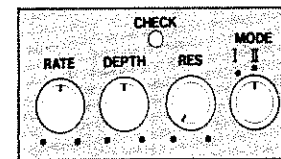
- When operating the PH-2 from AC line, use the BOSS AC Adaptor.
- Avoid using the PH-2 in extreme heat, humidity or where it may be affected by dust.

CONNECTION

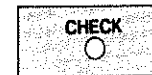


If the PH-2 is not to be used, disconnect the connection cable from the Input Jack.

OPERATION

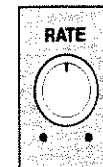


1. Make sure that all connections are properly made, then set the panel as shown left.

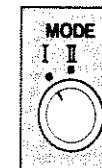


2. Press the pedal to turn the effect on. Here, if the indicator does not light, press the pedal once again.

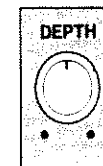
* The indicator can also be used as battery check. If it becomes dimmer or does not light at all, replace the battery.



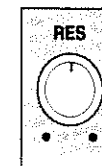
3. Rotate the Rate Knob to a proper position.



5. Select the Mode I or II position.

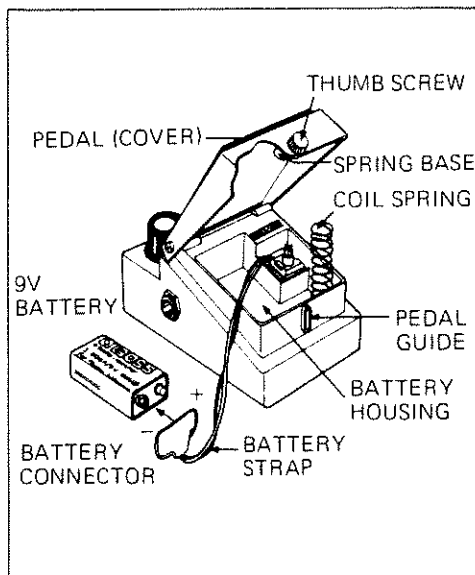


4. Rotate the Depth Knob to a proper position.



6. Rotate the Resonance Knob to a proper position.

CAUTIONS FOR REPLACING AND HANDLING BATTERY



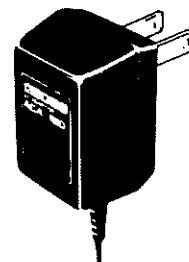
BATTERY REPLACEMENT USE 9V BATTERY

- Loosen the screw and open the Pedal.
- Take out the battery from the Battery Housing and pull up the Battery Strap.
- Attach the Battery Strap to the new battery, and place it in the Battery Housing.
- * Make sure that the Battery Strap is not caught in the Pedal or Coil Spring.
- Put the Coil Spring to the Spring Base and close the Pedal.
- Firmly tighten the screw.

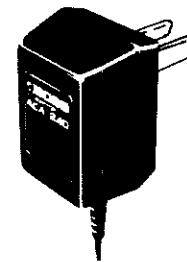
PRECAUTIONS

- When the PH-2 is not in use for a long period, remove the battery to prevent the trouble caused by the battery leakage.
- If the battery voltage drops, effect becomes inferior or no sound is produced. To prevent that, replace the battery.
- Be sure to keep the battery securely connected even while using the AC Adaptor, then the PH-2 will continue to operate even if the AC Adaptor cord comes out during performance.
- Unplug the cord from the INPUT jack when the PH-2 is not in use to avoid wasting the battery.

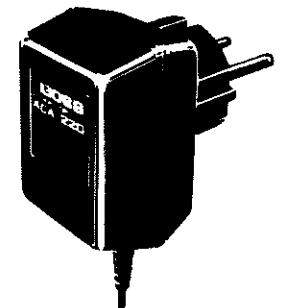
AC ADAPTOR (OPTION)



BOSS ACA-120
FOR 117V AC



BOSS ACA-240
FOR 240V AC



BOSS ACA-220
FOR 220V AC

SPECIFICATIONS

Power	9V Dry Battery, AC Adaptor (optional BOSS ACA-120, 220 or 240)
Consumption	9V DC/20mA (MAX)
Controls	Rate Depth Resonance Mode
Others	Pedal Switch (FET electronic switch) Indicator
Jacks	Input Output AC Adaptor
Phase Shift	12 stages (2160°)
LFO Speed	14s to 100ms
Residual Noise	less than -80dBm (IHF-A)
Maximum Input	-5dBm
Gain	Unity
Input Impedance	1M Ω
Output Load Impedance	more than 10k Ω
Dimensions	70(W) x 55(H) x 125(D) mm 2-3/4"(W) x 2-3/16"(H) x 4-15/16"(D)
Weight	410g / 14 oz

*Specifications are subject to change without notice.

 **BOSS**
Products of Roland

Printed in Japan Jun. '88 E-3

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G6017217

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