GUITAR AMPLIFIER BOLT-60 VACUUM OWNER'S MANUAL

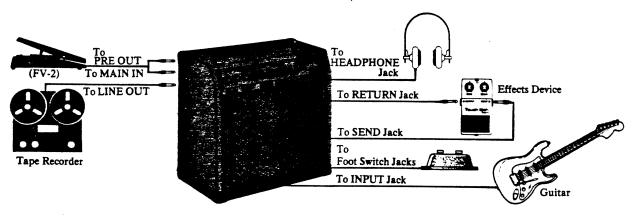




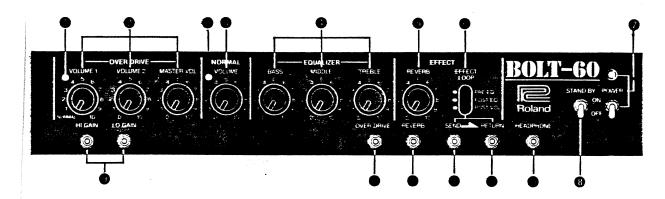
Features

- Produces warm overdrive effects due to the combination of a low noise FET and RCA vacuum tubes.
- NORMAL/OVERDRIVE two-channel operation, with foot switch switching between the two channels.
- Versatile external effects loop.
- Built-in reverberation unit.
- Most jacks are on the front panel for easy access during performance.

CONNECTIONS



CONTROLS AND FUNCTIONS CONTROL PANEL



- Channel Indicators
 Indicates which channel (NORMAL or OVERDRIVE) is being used.
- VOLUME 1, VOLUME 2, and MASTER VOLUME Controls For producing and controlling the overdrive sound.
- VOLUME Control Controls the output level of the NORMAL channel.
- BASS, MIDDLE, and TREBLE Controls For controlling the tone of the three frequency bands. With all three controls at "0", frequency response is flat.
- REVERB Control
 Controls the amount of reverberation
 added to the sound.

- EFFECT LOOP Switch Determines the position of the effect loop in the amplifier circuits.
- POWER Switch and Pilot Lamp The vacuum tubes require approximately 20 seconds for warmup before sound can be produced.
- STANDBY Switch
 When OFF, and the power switch is
 turned ON, power is fed to the
 vacuum tube heater elements to
 make the amplifier in the STANDBY
 condition after 20 seconds. Sound
 will be produced immediately after
 the STANDBY switch is turned ON.
- INPUT Jacks
 High and Low gain guitar inputs.
 Use LO with guitars which produce particularly high level output signals.

- OVERDRIVE Foot Switch Jack
 For ON/OFF control of the OVER-DRIVE effect.
- REVERB Foot Switch Jack For ON/OFF control of the reverberation effect.
- SEND Jack
 For connection to an external effects device INPUT jack.
- RETURN Jack
 For connection to an external effects device OUTPUT jack.
- HEADPHONE Jack
 Using the HEADPHONE jack disables the speaker.

REAR PANEL



- PRE OUT Jack
 Internal preamp stage output.

 For using a separate external power amplifier.
- MAIN IN Jack
 Input to the internal power amp-

iffier. An effects device or a foot volume pedal can be connected between the PRE OUT and MAIN IN jacks for adding effects or for foot control of the sound volume.

LINE OUT Jack
 Output for connection t

Output for connection to external line level devices such as a tape recorder, mixer, etc.

SPEAKER Jack
 For using a larger speaker.

OPERATION

1 Check to see that the POWER and STAND BY switches are off. Plug in the AC plug. Now turn on the power.

3 5 6 7 8 9 9 4 AAAA 10 9

To get the NORMAL sound, set VOLUME 1 to NORMAL. Adjust the volume with the NORMAL CHANNEL knob.

SETTING EXAMPLES

1 For a NORMAL sound free from distortions, turn VOLUME 1 all the way to the left; adjust the volume with the NORMAL CHANNEL knob.



For a powerful OVERDRIVE sound, set VOLUME 1 and the MASTER VOLUME to "10"; adjust the volume level with VOLUME 2.



2 Approximately 20 seconds later, turn on the STAND BY switch.



To get the OVERDRIVE sound, turn VOLUME 1 to the right; adjust VOLUME 2 and the MASTER VOLUME to an appropriate volume level.

2 For a sound with a heavy sustain effect, set VOLUME 1 and 2 to "10"; adjust the volume level with the MASTER VOLUME.



4 For a bright sound with soft distortions, set VOLUME 2 to about "7"; the MASTER VOLUME to about "5" and adjust the volume level with VOLUME 1. Make adjustments with VOLUME 1 and the MASTER VOLUME for a balanced effect.



HELPFUL HINTS FOR USING THE BOLT 60

The effect loop system is used through a new idea. Use the selector switch according to the effector that is used or the type of sound that is desired.

• PRE EO

At this position, the EQ controls even the sound that has gone through an external effector. Therefore, it emphasizes the effect obtained from the effector. Raising the treble too high will emphasize the noise of the effector.

POST EO

At this position, the effector noise will not be increased even by raising the treble all the way up since the created sound will go through the external effector.

• POST VOL.

At this position, the effector will come in after the sound has been created by the EQ and volume. In most cases, this position and position POST EQ are used.

NOTES

- Because the vacuum tube often radiates heat, a chassis has been installed on the outside. Therefore do not stick your hand behind the amplifier for approximately 15 minutes after the power has been turned on or off.
- Keep away from interferences that induce high levels of noise such as flourescent lamps and neon lights. Changing the position of the guitar may help reduce noise.
- Pulling out the plug while the volume of the amplifier is raised up will put great strain on the speaker and may even damage it. Always unplug cords with the volume decreased to "0".
- When connecting the amplifier with an instrument, always plug in the instrument first and then plug in the amplifier. When unplugging, reverse the order and unplug the amplifier first.
- Do not expose the amplifier to great shock and do not move it while it is operating.
- Avoid places that are dusty or of high humidity.
- Clean the amplifier by wiping it with a neutral detergent. Do not use solvents such as paint thinner.
- For changing fuses, use the ones provided by our company.

IN CASE OF TROUBLE

If there are problems, read the following steps to see if anything can be done. If you still cannot fix it, then call your nearby Roland dealer.

CONDITION	CAUSE	MEASURE	
even if the power is switched on, the pilot lamp will not light up and no sound comes out	the power plug may not be plugged in completely	plug in the cord completely	
the pilot lamp goes on but no sound comes out	the STAND BY switch is off	turn on the STAND BY switch	
	the volume is turned off	adjust the volume to an appro- priate level	
cannot change the channel with the foot switch	VOLUME 1 is at the NORMAL position	turn VOLUME 1 to the right and set it at an appropriate level	
cannot get the reverberation	the foot switch is off	step on the foot switch and turn it on	
	the reverberation volume is off	raise the reverberation volume to an appropriate level	

SPECIFICATIONS

Power output:

60 W (rms)

Output Jacks:

PRE OUT; MAIN OUT;

Channels: Inputs:

HI; LO; MAIN IN:

LINE OUT; EFFECT SEND; SPEAKER;

EFFECT RETURN

HEADPHONE

Controls:

VOLUME 1, 2; MASTER VOLUME;

Power Consumption: 180 VA

VOLUME; BASS; MIDDLE; TREBLE; **REVERB**

Switches:

POWER; STANDBY;

Demensions:

 $500(W) \times 470(H) \times 280(D)$ (in millimeters)

Weight: 20 kg

Foot Switch Jacks:

EFFECT LOOP OVERDRIVE/NORMAL;

REVERB ON/OFF

*Specifications are subject to change without notice.

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