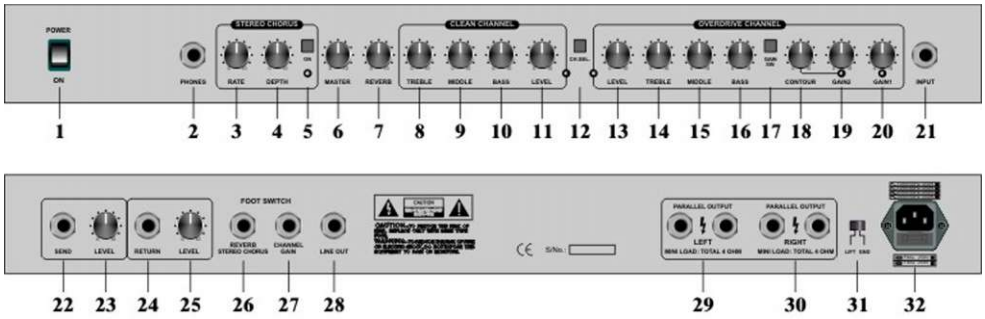
GSH-200SG

Professional
Guitar Amplifier

OWNER'S MANUAL



FRONT PANEL FEATURES

1. POWER: Turns the Amplifier on and off.
2. PHONES: This is for the output to any headphone vvith at least 8 И impedance. When this is used, the internal loud speaker is deactivated. The signal is sent to both sides of stereo headphones.
3. RATE: Produces a vibrato effect with Depth control turned up.
4. DEPTH: Adjusts the desired signal modulation.
5. ON: Control the chorus function ON and OFF.
6. MASTER: This controls the level of the signal that is passed to the output amplification stage, thereby controlling the general volume of the amplifier.
7. REVERB: This controls the amount of reverb applied to the overall signal.
8. TREBLE: This controls the high frequencies of the Clean Channel.
9. MIDDLE: This controls the mid frequencies of the Clean Channel.
10. BASS: This controls the low frequencies of the Clean Channel.
11. LEVEL (CLEAN Channel): This sets the level of the signal sent from the Clean channel to the Master.
12. CHANNEL SELECTOR: This selector switches between the Clean and Overdrive channels.
13. LEVEL (Overdrive channel): This sets the level of the signal sent from the Overdrive channel to the Master.
14. TREBLE: This active control allows you to increase or decrease the high frequencies of the Overdrive channel.
15. MIDDLE: This active control allows you to increase or decrease the middle frequencies of the Overdrive channel.
16. BASS: This active contorl allows you to increase or decrease the low frequencies of the Overdrive channel.
17. GAIN SW: This selector switches between Gain Stages 1 and 2.
18. CONTOUR This adjusts the curve of the frequencies that will be emphasized in the harmonic distortion of Gain Stage Rotated completely counter-clockwise, the mid frequencies are emphasised while the highs and lows are attenuated, creating a "closed" sound for rhythm guitar playing. Rotated completely clockwise, this attenuates the mid frequencies and increases the low and high frequencies, creating a sound typical of hard-rock guitar.
19. GAIN 2: This controls the gain applied to the signal from the instrument when the Overdrive channel is selected and when Gain stage 2 is selected. This gain stage produces a more saturated distortion, typical of "High-Gain" or "Modern" style amplifiers.
20. GAIN 1: This controls the gain applied to the signal from the instrument when the Overdrive channel is selected and when Gain stage 1 is selected. This gain stage produces a less cutting, smoother distortion typical of "Classic" or "Vintage" style amplifiers.
21. INPUT: This is for the connection with the output of your instrument.

REAR PANEL FEATURES

22. EFFECT LOOP SEND: This furnishes a signal from the preamplifier of the selected channel for connecting to the input of an external effect unit or the first effect in a chain of effects.
23. EFFECT LOOP SEND LEVEL: This regulates the level of the signal at the SEND output.
24. EFFECT LOOP RETURN: This input is used to reinsert the signal from external effects; it is to be connected to the output of the effect or the last effect in a chain of effects.
25. EFFECT LOOP RETURN' LEVEL: This regulates the level of the signal at the RETURN input.
26. REVERB/STEREO CHORUS FOOTSWITCH: This is for the connection of a 2-way, double footswitch (not included) with a 1/4" Mono Jack
    the Master signal.

27. CHANNEDGAIN FOOTSWITCH: lliis is for the connection of a 2-way, double footswitch (not included) with a 1/4" Stereo Jack connector. Such a footswitch will allow you to switch between the Clean and Overdrive Channels, and between Gain Stages 1 and 2.
28. LINE OUT: This is a 1 V RMS (LINE Level) output for sending the Master signal to a mixer, recorder, power amplifier etc.
29. PARALLEL OUTPUT (MINI LOAD: TOTAL 4 OHM): These outputs are for the connection to Left external speakers with minimum impedances of 4 Ohms respectively.
30. PARALLEL OUTPUT (MINI LOAD: TOTAL 4 OHM): These outputs are for the connection to Right external speakers with minimum impedances of 4 Ohms respectively.
31. GND LIFT: This detaches the system ground from the audio circuit in order to eliminate possible hum.
32. MAINS CONNECTOR: This is for the connection to the included power cable. The Mains fuse is contained in the compartment incorporated into this connector.

SPECIFICATIONS

Output Power	100+100 Watts RMS @ 8 ΠI: 120+120 Watts RMS @ 4 O
Frequency Response:	30 Hz- 10kHz
S/N Ratio:	>80dB
Input Impedance:	500 Kll
Maximum Input Level:	-45dB
LINE OUT:	OdB/lV RMS
EFFECT SEND	
Nominal Output Level:	-8dB
Load Impedance:	> 1K11
EFFECT RETURN	
Optimal Input Level:	-8dB
Impedance:	100KTI
Headphone Output:	60mW (<v 8SI
EQUALIZATION	
BASS:	+/-15dB @ 50 Hz
MIDDLE:	+/-15dB @ 600 Hz
TREBLE:	+/-15dB @ 3 KHz
Power Supply:	
Dimensions:	625 x 480 x 284mm
Weight:	16 Kg

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Read ail warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a damp cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not defeat the safety purpose of the polarized-type plug. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
9. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
10. Protect the power cord from being walked on or pinched particularly at the plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug, when liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing or objects filled with liquids, such as vases. The unit shall not be installed in a cabinet or where the power switch is difficult to access.