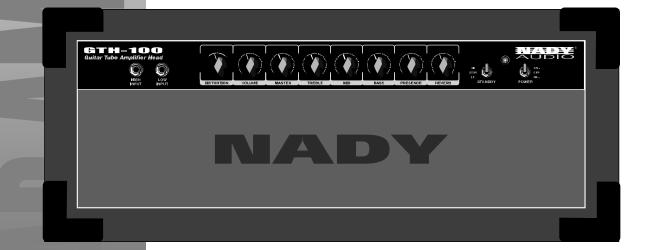


## OWNER'S MANUAL



**GTH-100** 

Tube Guitar Head Amp w/ Reverb

# GTH-100 Tube Guitar Head Amplifier with Reverb



Congratulations on your choice of guitar amplifier — you have purchased one of the finest guitar amplifiers on the market today. This unit was developed using the expertise of professional sound engineers and working musicians. You will find that your new NADY AUDIO GTH-100 has superior performance and greater flexibility than any other guitar amplifiers in its price range. Please read this manual carefully to get the most out of your new unit.



Thanks for selecting NADY AUDIO as your choice in guitar amplifier.

### **FEATURES**

- 100W RMS output, all-tube design featuring four EL-34 power tubes and three 12AX7A preamp tubes
- High and Low Inputs, Line Output, and full complement of controls for total volume, tone shaping and tonal definition, including a 3-way overdrive gain switch, lead boost control (up to +12dB), volume, master, treble, mid, bass and presence controls
- High and Low power settings. HI-100W RMS, LO-30W RMS
- Spring reverb with adjustable control and lead gain boost both switchable with optional FS-2 footswitch
- Line level rev. output jack (rev sig. only)
- Durable vinyl cover, steel corners, and rugged construction for years of roadworthy reliability

## 

#### WARNING





An equilateral triangle enclosing a lightening flash/arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure which may be of sufficient magnitude to constitute a risk of electric shock.



An equilateral triangle enclosing an exclamation point is intended to alert the user to the presence of important operating and service instructions in the literature enclosed with this unit.

## **IMPORTANT SAFETY INSTRUCTIONS**

When using this electronic device, basic precautions should always be taken, including the following:

- 1. Read all instructions before using the product.
- 2. Do not use this product near water (e.g., near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, etc.).
- 3. This product should be used only with a cart or stand that will keep it level and stable and prevent wobbling.
- 4. This product, in combination with headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
- 5. The product should be positioned so that proper ventilation is maintained.
- 6. The product should be located away from heat sources such as radiators, heat vents, or other devices (including amplifiers) that produce heat.
- 7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product. Replace the fuse only with one of the specified type, size, and correct rating.
- 8. The power supply cord should: (1) be undamaged, (2) never share an outlet or extension cord with other devices so that the outlet's or extension cord's power rating is exceeded, and (3) never be left plugged into the outlet when not being used for a long period of time.
- Care should be taken so that objects do not fall into, and liquids are not spilled through, the enclosure's openings.
- 10. The product should be serviced by qualified service personnel if:
  - A. The power supply cord or the plug has been damaged.
  - B. Objects have fallen into, or liquid has been spilled onto the product.
  - C. The product has been exposed to rain.
  - D. The product does not appear to operate normally or exhibits a marked change in performance.
  - E. The product has been dropped, or the enclosure damaged.
- 11. Do not attempt to service the product beyond what is described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.

## INSTALLATION

To ensure years of enjoyment from your NADY AUDIO GTH-100, please read and understand this manual thoroughly before using the unit.

#### **INSPECTION**

Your NADY AUDIO GTH-100 was carefully packed at the factory in packaging designed to protect the units in shipment. Before installing and using your unit, carefully examine the packaging and all contents for any signs of physical damage that may have occurred in transit.

[Please note: Nady Systems is not responsible for shipping damage. If your unit is damaged, do not return to Nady, but notify your dealer and the shipping company (if shipped to you) immediately to make a claim. Such claims must be made by the consignee in a timely manner.]

#### CONTENTS

- · Instruction manual
- GTH-100 (verify that the unit's serial number is same as shown on shipping carton)
- FS-2 Dual footswitch
- AC Power cord
- · Warranty Card

#### POWER CONNECTION

The GTH-100 has an internal power supply and is designed to operate from an external AC source. Power requirements for electrical equipment differ from area to area. Be sure to confirm that the voltage selected by the voltage selector switch on the back panel is proper for your area (120VAC/60 Hz or 230VAC/50Hz) per the information below:

Europe (except UK): 230V, 50Hz UK and Australia: 240V, 50Hz USA and Canada: 120V, 60 Hz

For other areas, please check with local authorities. When ready to operate, plug the AC cord into the power source. Make sure that the unit is turned off before connecting to the AC power source to avoid possible loud transients that can damage your speakers or your ears, especially when monitoring with headphones.

## LEGAL INFORMATION

#### **NOTICE**

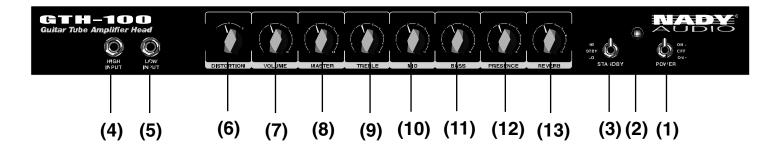
The information in this document is subject to change, as the Company may make changes to product in order to improve reliability, design, or function, without prior written notice. No part of this manual may be reproduced or transmitted in any form or by any means without the written permission of the company.

IN NO EVENT WILL THE COMPANY BE LIABLE FOR SPECIAL INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING DIRECTLY OR INDIRECTLY, SUCH AS LOSS OF PROFIT OR GOOD WILL, THAT MAY BE SUFFERED IN CONNECTION WITH THE PURCHASE OF THIS PRODUCT OR FROM THE BREACH OF ANY REPRESENTATION OR WARRANTY.

#### **LICENSE**

The Company grants the customer a non-exclusive, non-transferable license to use the software, if any, accompanying this product for internal use on a single computer system. The end user may make a single copy of the software solely for backup purposes; otherwise, no copies may be made of the software or any part thereof. No other license of any kind is granted to any part of the product or any of the intellectual property therein.

## FRONT CONTROLS AND CONNECTIONS



#### 1. POWER SWITCH

This switch turns the main power on and off. Flipping the toggle switch up to the ON+ position will turn on the amp "in phase" with the main AC line voltage. Flipping the switch down to the ON- position will reverse the polarity. In some cases, AC hum (caused by ground loops) can be reduced by reversing the polarity. Select the On position which has the least amount of AC hum.

#### 2. POWER INDICATOR LIGHT

Lights when the unit is powered on.

#### 3. HI / STBY / LO SWITCH

Flipping this toggle switch to the STBY position will respectively disable the audio to the amplifier and the outputs and put the amp in standby mode. This allows for proper warm-up of the tubes before applying signal to them, and allows the amp to stay warm when not in immediate use. To extend the life of the tubes, always turn the Main Power Switch on first, for 1-2 minutes, before flipping the Standby Switch to LO or HI. Set the switch to LO, which will enable audio with a maximum of 30W RMS output power, if the highest volume is not necessary, or, if you want to achieve more distortion at the output tubes. Flipping the switch to HI will enable audio to the amplifier with a maximum 100W RMS output.

#### 4. HIGH INPUT JACK

Input for instrument outputs like passive guitar outputs, keyboard, mics for harmonicas, and other effects devices.

#### 5. LOW INPUT JACK

The Low Input Jack has a pad with approx 9dB with lower gain than the High Input Jack. This should be used with higher level electronic devices or to achieve more range from the gain controls before distortion.

#### **6. DISTORTION SELECTOR**

This three-way switch selects the input sensitivity and amount of overdrive distortion. Position 1 offers the cleanest signal with least amount of distortion. Position 3 has the maximum amount of distortion.

Note: The VOLUME and MASTER controls also affect the final signal level and the amount of distortion.

- For cleanest operation (least distortion) adjust the VOLUME to a very low setting, the MASTER to maximum, and the DISTORTION to Position 1.
- For medium distortion (or crunch) adjust the VOLUME to past the mid position, the MASTER to mid, and the DISTORTION to Position 2.
- For maximum distortion adjust the VOLUME to maximum, the MASTER to a very low setting, and the DISTORTION to Position 3.

#### 7. VOLUME CONTROL

This adjusts the level of the input signal to the amp. Increasing this level will create distortion dependent on the DISTORTION SELECTOR setting.

#### **8. MASTER VOLUME CONTROL**

Adjusts overall loudness of the amp.

#### 9. TREBLE CONTROL

Adjusts the level of treble/Hi frequencies.

#### 10. MID CONTROL

Adjusts the level of mid-range frequencies.

#### 11. BASS CONTROL

Adjusts the level of bass frequencies.

#### 12. PRESENCE CONTROL

Adjusts the high overtones, texture, and feel of the amp.

#### 13. REVERB CONTROL

Adjusts the level of reverb mixed with the dry signal.

## **REAR CONTROLS AND CONNECTIONS**



#### 1. POWER CONNECTION

A standard IEC AC power socket for connecting to the main AC supply. The IEC power socket has an integral fuse holder that takes a 20mm fuse.

#### NOTE:

- Always replace a blown fuse with the same type as specified on the rear panel and under Specifications (pg. 7) for the corresponding AC voltage being used.
- Before you connect your GTH-100 to the AC, please make sure that your local voltage matches the Voltage Selector Switch.
- Do not remove the center ground conductor.

#### 2. VOLTAGE SELECTOR SWITCH

For selecting the proper voltage (115/230VAC) to match the power supply in your area.

#### 3. HIGH VOLTAGE FUSE

1A 250V fast blow fuse

#### 4. FOOTSWITCH JACK

on.

For connecting to the included FS-2 dual footswitch. On the FS-2, the right switch controls the Reverb on/off. The left switch controls the Lead Boost on/off for adding up to 12dB of gain at the preamp stage. Note: connecting the FS-2 will automatically decrease the level at the preamp input stage allowing it to be boosted to a higher level when the Lead Boost is switched

#### 5. SPEAKER OUTPUTS

Power output jacks for connecting to  $4\Omega$ ,  $8\Omega$ , and  $16\Omega$  speaker cabinets. Although compatible with many cabinets, for best results it is recommended that the GTH-100 be used to power the matching GAC-412 cabinet ( $8\Omega$ ), which utilizes (4x) 12" Nady PowerDrive<sup>TM</sup> speakers for optimum tone and maximum output.



#### 6. LINE OUT

This line level output signal is derived from the output of the power amp to incorporate all the characteristics, color and tonal response of the output tubes. This signal can be input into any device, such as an audio mixer or another amplifier, and can be useful in many live sound or recording applications.

#### 7. REVERB OUT

A pure reverb signal output. This may be used for recording by plugging into mixing consoles/recording devices or for stereo effects by using an outboard amp and speaker.

## **SPECIFICATIONS**

Power Amp Section	Four EL34 Tubes
Power Output	100W RMS @ $4\Omega - 8\Omega - 16\Omega$ 5% THD
Preamp Section	Three 12AX7A Tubes
Input Imp.	
Input Sens. (1KHz)	HI input max clean 800mV, Max distortion 8mV
	LO input max clean 1.6V, Max distortion 16mV
LO Input Attenuation	
Lead Boost Range	
Line Output Imp.	600Ω
Line Output Level	1V nominal
Reverb Output Imp.	1K
Reverb Output Level	1V nominal
Power Requirements	120 VAC 60Hz, 230 VAC 50Hz
Power Fuse	5x20mm glass tube, slow-blow
	4A/250V for 115VAC, 2A/250V for 230VAC
High Voltage Fuse	1A 250V fast blow
Dimension	
Weight	

#### **TUBE REPLACEMENT**

Preamp Tubes 12AX7A — No adjustment required

**Output Tubes EL34** — After replacing output tubes, output tubes bias voltage should be checked with Standby switch set to On, no signal input, and all controls set to minimum. If output tube bias voltage is not correct, amplifier will sound unusually distorted with mushy audio and output tubes may overheat. Normal output tube bias voltage should be -46VDC on Pin 5 of all output tubes. For best results use matched output tubes.

Caution: Do to dangerously high voltage, these adjustments should only be made by qualified technician.

The specifications above are correct at the time of printing of this manual. For improvement purposes, all specifications for this unit, including design and appearance, are subject to change without prior notice.

#### **SERVICE FOR YOUR NADY AUDIO PRODUCT**

**(U.S.)** Should your NADY AUDIO product require service, please contact the Nady Service Department via telephone at (510) 652-2411, or e-mail at service@nady.com.

(International) For service, please contact the NADY AUDIO distributor in your country through the dealer from whom you purchased this product.

DO NOT ATTEMPT TO SERVICE THIS UNIT YOURSELF AS IT CAN BE DANGEROUS AND WILL ALSO VOID THE WARRANTY.

