

Legacy Series Combo OWNER'S MANUAL



Part No: 160-1050-A

Congratulations!

Your purchase of a new Gallien-Krueger amplifier is surely the result of much careful consideration on your part. For our part, we at Gallien-Krueger are pleased that you chose us, and are determined that you will be a satisfied customer. In choosing a GK amplifier, you now own an amplifier with many unique features which will allow you to create your own distinct sound.

To get the most out of your new purchase, please take a few minutes to read through this manual. If you are in a hurry, we suggest you at least read through the Quick Start section before setting up your new rig. This will help get you started and give you a few quick tips, but is not a substitute for reading the rest of the manual.

Your amplifier should have come with the following items, please check the contents of the box to ensure that you have everything.

Included with your Legacy Series Combo Amplifier:

Power cord	1
Owner's manual	1
One Button Foot Pedal	1
Foot Pedal Cable	1

If your amplifier did not come with all the items listed, or if you encounter problems while setting up your new equipment, please contact your local dealer or GK as soon as possible.

For product registration, visit gallien-kruger.com.

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We wish you a lifetime of good playing and



GK Philosophy

I have never seen the point in doing things the way others have done them. I also have not been very interested in following the latest fad. I'm a Stanford educated engineer who worked my way through school as a musician. Like all musicians, I have lugged amplifiers up stairways and into car trunks, always wondering why these things had to be so heavy, bulky, and hard to handle.

As the principal innovator at GK, our products reflect my attitudes and life experiences. I don't model my designs after other manufacturers' products. Instead, I believe new and old problems are best solved with new solutions. Having taken our own path, GK products enjoy a unique, unmatched sound, allowing you every opportunity to make an original statement.

Having supported my products for over thirty years, I have learned from the story they tell. Gallien-Krueger is a reflection of that story, and has a commitment to support that legacy. Just as the products I created over thirty five years ago are still telling their story, the products we create today will be talking to us tomorrow.

We'll be listening,

Robert Gallien Founder and President

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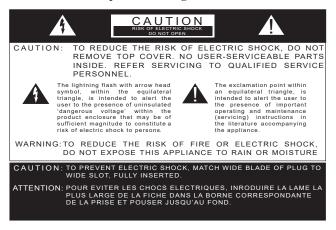
*All Features and specifications are subject to change without notice

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email: info@gallien-krueger.com internet: www.gallien-krueger.com

Warning!

This amplifier is capable of producing high sound pressure levels. Continued exposure to high SPL's can cause damage to your hearing. Always set the volume at a safe listening level or use hearing protection if the unit is operated at higher levels.



Read First!

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: To prevent electric Shock, do not remove the grounding plug on the power cord, or use any plug or extension cord that does not have a grounding plug provided. Make certain that the AC outlet is properly grounded. Do not use an adapter plug with this product



The Lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of non-insulated "dangerous voltage" within the apparatus's enclosure that may be of sufficient magnitude to constitute arisk of electric shock to persons

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the apparatus.

1. Read these instructions

All the safety and operating instructions should

be read before the apparatus is operated.2. Keep these instructions

The safety and operating instructions should be kept for future reference. 3. Heed all warnings

All warnings on the apparatus and in the operating instructions should be adhered to. 4. Follow all instructions

All operating and use instructions should be followed.

5. Water and moisture

Do not use this apparatus near water. For example, near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like. 6. Cleaning

Clean only with dry cloth. Unplug this apparatus from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. 7. Ventilation

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Slots and openings in the cabinet are provided for ventilation, and to ensure reliable operation of the apparatus, and to prevent it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surfaces. This apparatus should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided. 8. Heat sources

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Grounding or polarization

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. 10. Power-cord protection

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Attachments

Only use attachments/accessories specified by the manufacturer. 12. Place Carefully

Use only with the cart, stand, tripod, bracket, or

table specified by the ma manufacturer, or sold with the apparatus. When a cart is used, use caution when mo moving the cart/apparatus combination to avoid injury from tip-over.



13. Nonuse periods

Unplug this apparatus during lighting storms or when unused for long periods of time. 14. Servicing

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 is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or mositure, does not operate normally, or has been dropped. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. 15. Power sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer

Important Safety Instructions!

or local power company. For product intended to operate from battery power, or other sources, refer to the operating instructions.

16. Overloading

Do not overload wall outlets, extension cords, or integral convenience receptacles, as this can result in electrical shock.

T7. Object and

Never push objects of any kind into this apparatus through openings, as they may touch dangerous voltage points or short-out parts that could result in fire or electrical shock. Never spill liquid of any kind on the apparatus.

18. Damage requiring service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. The power-supply cord or the plug has been damaged; or

b. Objects have fallen into, or liquid has been spilled into, the product; or

c. The product has been exposed to rain or water; or

d. The product does not operate normally when following the operating instructions. Adjust only those controls that are covered by the operating instructions, as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation; or e. The product has been dropped or damaged in any way; or

f. The product exhibits a distinct change in performance – this indicates a need for service.

19. Replacement parts

When replacement parts are needed, be sure the service technician has used replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards. 20. Safety check

Upon completion of any service or repairs to this apparatus, ask the service technician to perform safety checks to determine that the apparatus is in proper operating condition. 21. Wall or ceiling mount

The apparatus is not to be mounted to a ceiling or wall in any way.

GK GALLIEN-KRUEGER

Safety Information

Please read all enclosed safety precautions before connecting or operating this product.

Verify Line Voltage and Amperage: Your amplifier has been factory configured to use with the line voltage 100-240Vac 50/60 Hz.

100-120 Volt/60Hz 15A circuit for USA and Canada.

220-240 Volt/(50/60Hz) 10A circuit for UK and Australia.

220-240 Volt/(50/60Hz) 10A circuit for Europe.

100-120 Volt/50Hz 15A circuit for Japan. 220-240 Volt/50Hz 10A circuit for Korea. Proper AC circuit for all other countries.

Connecting the amplifier to a line with specifications other than indicated above can create safety and fire hazard, and may damage the amplifier. If you have any questions about the voltage requirements for your specific model, or about the line voltage in your area, contact your dealer before plugging the unit into a wall outlet.

Verify AC Circuit Capacity Before Use: The high power output of your amplifier may require heavy current draw under full load conditions. To insure proper performance and avoid potential safety hazards, we recommend connection to line circuits with amperage specified "as above". Connecting to the same circuit used by other heavy power devices, such as high wattage lights, may cause circuit breakers to trip. It is always a good idea to avoid using any audio equipment on the same AC circuit as equipment with motors, such as air conditioners or refrigerators. This will lessen the possibility of power variation and electrical start up noise affecting your sound.

AC Power Cord: To avoid safety hazards, use only the power cord supplied with your unit. If a replacement cord is needed, make certain to use a standard IEC compliant cord. Damaged power cords should be replaced immediately. When setting up, make certain that the AC plug is easily accessible. If you do not intend to use the amplifier for a considerable length of time, disconnect the plug from the AC mains socket. Do not use an extension cord. **Earth Grounding Connection:** To prevent electric shock, do not remove the grounding plug on the power cord, or use any plug or extension cord that does not have a grounding plug provided. Make certain that the AC outlet is properly grounded as well. Do not use an adapter plug with this product.

Do Not Open the Amplifier Enclosure: There are no user serviceable parts inside this product. Opening the amplifier enclosure may present a shock hazard. Modification to the product will void your warranty. If liquid enters the unit, or any metal object such as a paper clip accidentally falls inside the enclosure, disconnect the unit from the AC power source immediately and consult an authorized service station.

Setup: To insure proper operation and to avoid potential safety hazards, place the unit on a firm, level surface. Do not plug or unplug the instrument or speaker cable while the amplifier power is on.

Heat & Ventilation: For proper ventilation, make sure there is at least 8" or 20cm clearance at the back of the unit. Avoid using in extremely hot or cold locations and areas that are exposed to direct sunlight or near heating equipment. Avoid using in moist or high humidity areas.

USA: Indoor use only.

Norway: Apparatet må tilkoples jordet stikkontakt Sweden: Apparaten skall anslutas till jordat uttag Finland: Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan Denmark: "Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord."

China: 在海拔高度 2000 米或更低和非热带位置仅用

Quick Start

The Legacy Combos are designed to be simple to operate and all controls have a well defined purpose. These directions will take you through the basics and give you a good start for setting up your sound.

Connect your speakers: Connect your extension speaker cabinets to the amplifier outputs marked SPEAKER using a standard two conductor speakon cable or Gallien-Krueger four conductor speaker cable. Using the Load Impedance switch, select the speaker load that matches the total impedance of the attached speaker cabinets.

Maximum recommended speaker loads: One 4 Ohm, or Two 8 Ohm cabinets.

Initial front panel control settings: Trim knob to the full clockwise position. Drive, Level and Master to full counter clockwise position. All EQ and Edge controls to the 12 o'clock position. Bump, Contour, Presence and Mute to the down position.

Connect your Instrument: Using a shielded ¹/₄" instrument cable, connect your bass to the input jack and press the power switch to the on (up) position. If you have active tone controls on your bass, turn all of the controls to the middle or flat position and turn the volume all the way up. If you have conventional, passive tone controls, turn all tone and volume controls all the way up.

Level and Master Volume settings: Using a shielded ¹/4" instrument cable, connect your bass to the input jack and press the power switch to the on (up) position. If you have active tone controls on your bass, turn all of the controls to the middle or flat position and turn the volume all the way up. If you have conventional, passive tone controls, turn all tone and volume controls all the way up.

Drive Settings: Place the Overdrive switch to the up position. Turn the Drive knob to the 12 o'clock position. Turn the Level knob up as you play to the desired volume. You can now experiment with various Drive settings. *As Drive is adjusted it may be necessary to adjust the Level knob

to maintain consistent volume level.



- **1** Input: ¹/₄" analog instrument signal.
- **2** Trim: Adjusts the level of signal coming in from the $\frac{1}{4}$ " input.
- **3 Drive:** When overdrive is active this adjusts the amount of clipping/distortion.
- 4 Level: Adjusts output level when the Drive circuit is active.
- 5 Bass: Boosts or cuts bass frequencies centered at 60Hz.
- 6 Lo-Mid: low-mid Boosts or cuts frequencies centered at 250Hz.
- 7 Hi-Mid: Boosts or cuts hi-mid frequencies 20 Mute: Mutes main speaker and all other centered at 1kHz.
- 8 Treble: Boosts or cuts treble frequencies centered at 7 kHz.
- 9 Master: Sets the main output volume of the speaker and headphone output.
- 10 Stby: Indicates unit is attached to mains power.
- **11 Pwr:** Illuminated when unit is powered on.
- **DOT:** Indicates unit is experiencing a fault related to over temperature.
- **13 OC:** Indicates unit is experiencing a fault related to over current draw.
- 14 Clip: Flashes when incoming signal exceeds the input circuit's capability.

- input to receive **15** Overdrive: Engages Drive circuit when placed in the up position. LED indicator is lit when Drive is enabled.
 - **16 Edge:** Adjusts the high freq. response of the Drive circuit.
 - 18 Bump: Applies low frequency enhancement when placed in the up position.
 - 12 Contour: Reduces mid and boosts low and high frequencies in the up position.
 - **19** Presence: Applies high frequency enhancement when placed in the up position.
 - outputs except the tuner output. LED indicator is lit when Mute is enabled.



1 AC Input: The detachable power cord **3** Foot Sw: Input for Fusion footswitch to attaches here.

2 Power Switch: Turns the unit on or places it in standby. This does not disconnect the **9**Return: mains power.

direct output.

direct connection to P.A. or recording console.

5 Source: Selects the signal sent to the direct **12** External Load: Selects the attached output before (pre) or after (post) the EQ controls.

6 **Phones**: 3.5mm output for headphones.

7 Aux In: 3.5mm input for external playback device such as an MP3 player.

- allow the Drive and Compressor function to be activated remotely.
- Input for outboard effects devices.
- **3** Pin 1 Lift: Lifts or grounds pin 1 of the **10** Send: Output from the preamp section for processing by external effects devices.
- **4** Direct Out: Balanced XLR output for **11** Horn: Sets the horn power output to high (switch up), low (switch down) or off (switch middle).
 - speaker load.
 - **B**Speaker Outputs: Twist-lock speaker outputs. Requires 2 pin peakon cable to connect to external speaker cabinet.

Installation

To insure proper operation and to avoid potential safety hazards, place the unit on a firm, level surface.

Ventilation: Make certain that proper space is provided for ventilation. Never block the fan vent holes located at the back of the amplifier. If the amplifier will be in an enclosed area, make sure that there is at least 8" clearance at the back panel for sufficient air movement. Consult your dealer for more information. Avoid installation in extremely hot or cold locations, and areas that are exposed to direct sunlight, or near heating equipment. Avoid moist or humid locations. Remember, power amplifiers generate heat. The ventilation slots on the enclosure are specifically designed to remove this heat. Blocking or placing other electronic equipment near the heat dissipation system may possibly affect the long term reliability of both your amplifier and the other equipment.

Moving the Unit: Before moving the unit, be certain to disconnect any cords connected to other components, and make sure that you disconnect the unit from the AC outlet.

Cleaning: When the unit gets dirty, clean only with a dry cloth. Never use benzene, thinner, alcohol, or other volatile cleaning agents. Do not use abrasive cleaners, as they may damage the finish of metal parts. Avoid spraying insecticides near the unit.

Maintenance: Your new amplifier is rugged. It was built to give you a lifetime of trouble free operation, if it is operated in accordance with the instructions contained in this manual. The only maintenance required is cleaning. If you are going to move your amplifier around frequently, we recommend a road case to protect it from scratches and road wear. **Packaging:** The carton and packing materials used in shipping your new amplifier were specifically designed to cushion it from the shocks and vibration that occur during transport. We suggest that you save the carton and packing materials for use in shipping, in the event you move, or the amplifier needs repair.

Output Power:

Legacy 115	80	00W Internal (8Ω) 00W With 8Ω Extension 00W With 4Ω Extension	
Legacy 112	80	00W Internal (8Ω) 00W With 8Ω Extension 00W With 4Ω Extension	
Legacy 212	80	00W Internal (4Ω) 10W With 4Ω Extension 10W With 8Ω Extension	
Legacy 210	80	0W Internal (8Ω) 0W With 8Ω Extension 0W With 4Ω Extension	
Legacy 410	80	00W Internal (4Ω) 00W With 4Ω Extension 00W With 8Ω Extension	
Input Section:			
Maximum Input Le	vel 0.6	6V rms	
Input Impedance		/I Ohms	
Direct Output Impe	dance 50	0 Ohms	
Aux-in Input Impedance		00K Ohms	
Equalizer:			
Bass	+/-	-10dB@60Hz	
Lo-Mid	+60	dB/-10dB@250Hz	
Hi-Mid	+60	dB/-10dB@1KHz	
Treble	+/-	-14dB @ 7KHz	
Voicing Filters:			
Contour	+20	dB@50Hz/-10dB@500Hz/	
	+30	dB @ 7 KHz	
Noise:			
Legacy 115	-90 dB reference to 800W, 'A' weighted		
Legacy 112	-90 dB reference to 800W, 'A' weighted		
Legacy 212	-90 dB reference to 800W, 'A' weighted		
Legacy 210	-90 dB reference to 800W, 'A' weighted		
T 410			

Amplifier Protection:

Legacy 410

Full short circuit, thermal and RF protection. Stable into reactive and mismatched loads. 16 second muted warm up.

-90 dB reference to 800W, 'A' weighted

Dimensions	(HxWxD):	Weight:
Legacy 115	24.60" x 19.12" x 14.70"	39.2 lbs.
Legacy 112	18.71" x 19.12" x 14.70"	32.0 lbs.
Legacy 212	27.78" x 19.12" x 14.70"	40.2 lbs.
Fusion 210	24.60" x 19.12" x 14.70"	37.0 lbs.
Legacy 410	27.19" x 23.16" x 14.70"	53.3 lbs.

Power requirements:

Legacy 115, Legacy 112, Legacy 212, Legacy 210, Legacy 410

U.S.A/Canada 120V/60Hz. 1199W(full power), 168W (average power) Europe 230V/50Hz/60Hz 1199W(full power), 168W(average power) Japan 100V/50Hz 1199W(full power), 168W(average power)



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.



This device has been tested and found to comply with:
CAN/CSA 60065-03 Safety Requirements.
UL std. No. 60065-2007 Safety Requirements.