

Artist Series

100IRB-II/700RB-II

OWNER'S MANUAL



100IRB-II/700RB-II



100IRB/115
700RB/115

100IRB/210
700RB/210

GK GALLIEN-KRUEGER





Table Of Contents

Introduction.....	3
Safety Information.....	5
Quick Start.....	6
Bi-Amp and Normal Operation.....	7
Sound Tips.....	8
Settings and Sounds.....	9
Installation and Maintenance.....	10
Front Panel Controls.....	11
Rear Panel Controls.....	12
1001RB-II/700RB-II Series Combos.....	13
Tech Talk.....	14
Specifications.....	16

**All Features and specifications are subject to change without notice*

***This list is subject to change without notice.*

Please read the Safety Information section on page 5 before continuing.

	<p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p>	
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		
 <p>The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.</p>	 <p>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 appliance.</p>	
<p>WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.</p>		
<p>CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.</p> <p>ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.</p>		

Gallien-Krueger

2234 Industrial Drive
Stockton, CA 95206
phone: 209.234.7300
fax: 209.234.8420
email: info@gallien-krueger.com
internet: www.gallien-krueger.com

700RB-II/1001RB-II Series

Congratulations

Your purchase of a new Gallien-Krueger 1001RB-II/700RB-II Series product 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 1001RB-II/700RB-II Series product, you own a unit 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 and Safety Information sections 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 1001RB-II/700RB-II Head:

1001RB-II/700RB-II	1
Rack mount Ears with Hardware	2
Power Cord	1
Four Conductor Speakon Style Cable	1
Owner's Manual	1
Warranty Card	1
Safety Instructions Sheet	1

Included with your 1001RB-II/700RB-II Combo:

1001RB/210 (/115), 700RB/210 (/115)	1
Power Cord	1
Owner's Manual	1
Warranty Card	1
Safety Instructions Sheet	1

If your 1001RB-II/700RB-II Series amplifier or combo did not come with all the items listed above, or if you encounter problems while setting up your new equipment, please contact your local dealer, or us as soon as possible at:

Gallien-Krueger, Inc.
2234 Industrial Drive
Stockton, CA 95206
phone: (209) 234-7300
fax: (209) 234-8420
Internet: www.gallien-krueger.com
Email: sales@gallien.com

We wish you a lifetime of good playing and remember to always have fun!



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 am a Stanford educated engineer who worked his 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 I am the principal innovator at **GK**, our products reflect my attitudes and life experiences. I don't model my designs after other manufacturer's products (as some of our competitors are proud of reciting).

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 the artist using them 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 thirty years ago are still telling their story, the products we create today will be talking to us tomorrow.



Robert Gallien

Founder & President

Safety Information

Verify Line, Voltage and Amperage Before Use:

Your new 1001RB-II/700RB-II Series Bass Amp has been factory configured for use with:

- 120 Volt/60Hz 20 Amp circuit for USA & Canada.
- 230 Volt/50Hz 10 Amp circuit for Europe & Australia.
- 100 Volt/50Hz 20 Amp circuit for Japan.
- Proper AC circuit for all other countries.

Connecting the amplifier to a line with specifications other than indicated above can create a 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 multiple amplifiers to the same circuit, or connecting the amplifier 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 to possibility of power variation and electrical start-up noise affecting your sound.

Warning: Do not disconnect or plug in the instrument/speaker cable with the amplifier power on. Be sure the amplifier unit is turned off before connecting to the speaker.

Do Not Use Extension Cords:

To avoid safety hazards, use only the power cord supplied with your unit. If a replacement cord is used, make certain that it is of consistent quality and gauge as the original. We do not recommend using extension cords with this product. As with all electrical devices, do not run power cords under rugs or carpets or place heavy objects on them. Damaged power cords should be replaced immediately with cords meeting factory specifications.

Handle The AC Power Cord Gently:

When disconnecting the power cord from an AC outlet, always pull the plug, never pull the cord. If you do not intend to use the amplifier for a considerable length of time, disconnect the plug from the AC outlet.

Mains Disconnect:

If the AC mains has to be completely disconnected, the plug/power cord is used as the mains disconnect device and shall remain readily operable.

Do Not Open The Amplifier Enclosure:

There are no user-serviceable components inside this product. Opening the amplifier enclosure may present a shock hazard, and modification to the product will void your warranty. If liquid enters the unit, or any metal object such as a paper clip, wire, or staple accidentally falls inside the enclosure, disconnect the unit from the AC power source immediately and consult an authorized service station.

Unpacking:

The carton and packing materials used in shipping your new amplifier were specially 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.

Quick Start

The 1001RB-II/700RB-II is designed to be simple to operate. All controls have a well defined purpose and are well behaved. These directions will take you through the basics and give you a good start for setting up your sound.

1. Plug it in:

Set the power switch to Off and connect the supplied power cord, from the amplifier AC receptacle, to an AC power outlet of proper voltage and power rating (see safety information on page 5 for details).

2. Connect your cabinets:

Connect your speaker cabinets to the amplifier outputs marked 700W/480W AMP ONLY or "SPEAKON" OUTPUTS. Be sure not to exceed the recommended speaker load below.

Maximum Recommended Speaker Loads:

One 4 Ohm, or two 8 Ohm cabinets on the Woofer Amp. One or two 8 Ohm horns on the 50W/Tweeter Amp.

If you are using an RBH Series cabinet, use the supplied 4 conductor Speakon cable to connect to the "Speakon" outputs on the rear panel of the amplifier. In addition, set the switch on the RBH cabinet to "Bi-Amp".

For connection to all other cabinets, connect to the 1/4" outputs labeled 700W/480W amp only.

For more information on Bi-Amp and Normal mode, see page 7.

Caution:

Do not connect any Speakon cables labeled "Bridge Mode" to the 1001RB-II/700RB-II. These cables are used for the old 2000RB amplifier only, and may result in damage to your amplifier.

When using non-GK cabinets that have Speakon connectors, only use a standard two wire Speakon cable. The supplied four conductor Speakon style connector could result in damage to your amplifier.

3. Initial front panel control settings:

Set all EQ controls and the Boost control to 12 o'clock. The Voicing Filters should be turned all the way down to get a flat response. Set the Level and Master Volumes at 0. If you have a five string bass, push the button marked String Bass in.

4. Plug in your bass:

Using an instrument cable, connect your bass to the Input jack and press the power switch on. 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.

5. Level and Master Volume settings:

Set the Master Volume to 12 o'clock. Turn the Input volume up as you play. Try not to turn it past 1 o'clock unless you want an overdrive effect. If the yellow clip light turns on, press the -14db button in. If it is still on, try turning the volume down on your bass.

At this point:

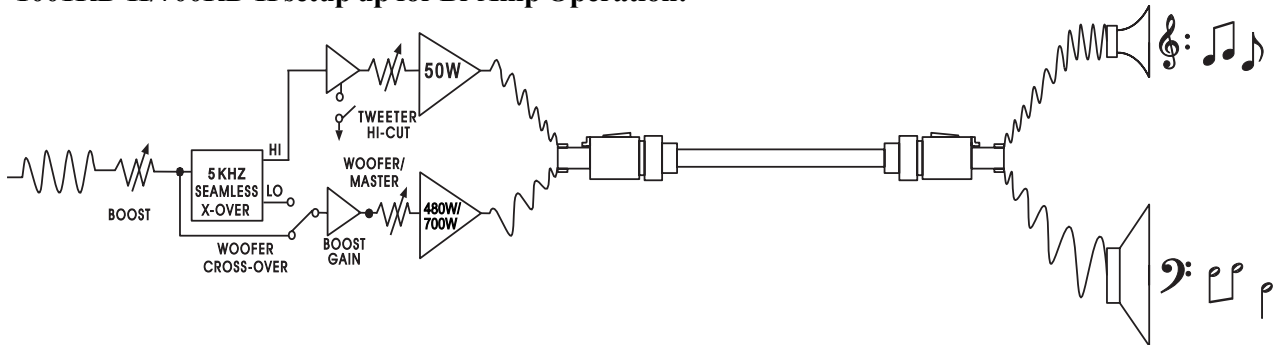
You should be hearing your bass quite well. You can use the Volume and Woofer-Master to achieve a comfortable sound level. **Remember:** If you need more volume, turn up the Woofer-Master control first.

700RB-II/1001RB-II Series

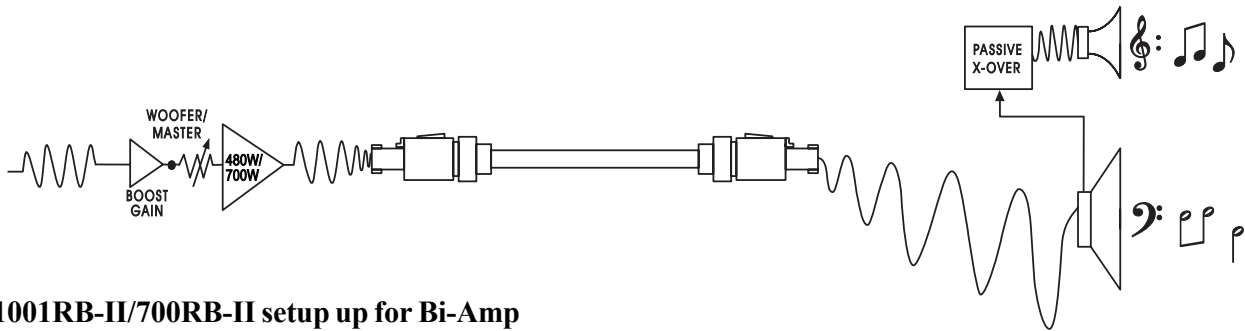
Bi-Amp and Normal Operation

The 1001RB-II/700RB-II's unique design allows for easy setup into Bi-Amp or Normal configurations. The operational mode is configured by how you connect your speaker cabinets. In addition, you have the option of driving one cabinet in Bi-Amp and one with Normal operation.

1001RB-II/700RB-II setup up for Bi-Amp Operation:



1001RB-II/700RB-II setup up for Normal Operation:



1001RB-II/700RB-II setup up for Bi-Amp Operation:

The Bi-Amp feature of the 1001RB-II/700RB-II series is automatically engaged when you connect an RBH series cabinet (with switch on the cabinet set to Bi-Amp) to the 1001RB-II/700RB-II with the supplied 4 conductor Speakon cable. This setup gives the 1001RB-II/700RB-II complete control of the tweeter and woofer signals sent to your rig. Now you can push the woofers to the max., while the tweeter remains clean, crisp, and free of clipping distortion. In addition, a smooth tight tone is easily dialed in by adjusting the Tweeter and Woofer Master controls on the 1001RB-II/700RB-II front panel. Note: In the Bi-Amp configuration the 50W tweeter amp is always operating from 5kHz and up (high frequencies only). It will drive horns only and not cabinets.

GK Speakon Cable	GK RBH Series Cabinet
1+ Woofer Amp +	410RBH, 210RBH,
1- Woofer Amp -	115RBH
2+ Tweeter Amp +	Set to Bi-Amp mode.
2- Tweeter Amp -	

1001RB-II/700RB-II setup up for Normal Operation:

The 1001RB-II/700RB-II series amplifier is configured for normal operation when you are connecting to any cabinet with a 2 conductor Speakon style cable, 1/4" to 1/4" speaker cable or 1/4" to banana plug speaker cable. In this setup, the speaker cabinet is driven by the Woofer/Main amp and the 50W/Tweeter amplifier is not used. If you are using RBH series cabinets, the volume of the tweeter (relative to the woofer's volume) can be adjusted using the Horn Level control of the cabinet's internal crossover.

GK Speakon Cable
1+ Woofer Amp +
1- Woofer Amp -
1/4" Woofer Cable
Tip Woofer Amp +
Shield Woofer Amp -

GK RBH Series Cabinet
410RBH, 210RBH, 115RBH
Set to Full Range mode.
Any brand name cabinet with
appropriate impedance and
power rating.

Sound Tips

The 1001RB-II/700RB-II Series has several unique features which, if used properly, will obtain that sound you have been searching for.

The Equalizer:

The Equalizer is used to fine tune your sound. When adjusting it, do it just a little at a time. These are active circuits, and small changes can make a big difference in your sound. With a little experimentation you will find that this equalizer is very easy to use, never sounds weird and provides you with a large variety of great sounds, unique to GK.

Contour:

Increasing the Contour level will scoop out mid-range frequencies while boosting the highs and lows. The sound, once again, is unique to GK and unavailable on any other Bass amp. Lower contour settings are recommended for midrange clarity at higher playing levels. For 800RB voicing, set the contour control either on 0 or 10 (Off, On on 800RB).

String Bass:

The way a Bass amp deals with the instrument low string is a critical part of its sound. In fact, a five string instrument requires an entirely different low end response than a four string instrument. No equalizer can make the necessary adjustments to accommodate both. However, the String Bass button on the 1001RB-II/700RB-II Series does just that. When it is out, the 1001RB-II/700RB-II is voiced like the 800RB. Push it in and the 1001RB-II/700RB-II is voiced for five string instruments. For some playing styles you may want it in, even with a four string instrument.

Boost/Master:

Turning up the Boost control, will add a little growl to your tone. This is an unmistakable GK trade mark sound, that you will grow to appreciate. Raising the Boost while lowering the Master will add more growl while keeping the sound level the same. Growl is actually a small amount of even order harmonic distortion, that sounds great through a woofer, but horrible through a horn (see Bi-Amp solution below). For most playing situations, the Master is set between 12 & 3 o'clock. The cleanest sound is obtained by setting the Master above 12 o'clock, and going above 3 o'clock for maximum power situations.

Direct Out:

The 1001RB-II/700RB-II provides a low noise, high quality balanced direct out for connection to PA and recording consoles. With the Pre/Post EQ switch set to "Pre" (Out), the direct output signal is fed directly from our low noise, high headroom, FET input stage providing a low noise output superior to external direct boxes and impedance transformers. In addition, this output is calibrated for 1.0V (0 dBV) output and can be adjusted to unity gain (instrument level) by adjusting the Level control to -15 dB (U) . With the switch in the Pre position, the Direct Output signal is only effected by the Level, -14dB Pad, and Tuning Mute controls. This allows you to adjust your tone and volume on stage without changing the Direct Output signal level and confusing your sound man.

Changing the Pre/Post EQ switch to "Post" (In), sends the "GK sound" and preamp response to the Direct Out jack. This gives you complete control over the Direct Out's tone and volume. In addition, a Ground (Gnd) Lift switch is included to remove hum and buzz when connecting to equipment powered by a different ground system.

700RB-II/1001RB-II Series

Settings and Sounds: 1001RB-II & 700RB-II

The 1001RB-II/700RB-II is versatile in its sound and tone. Below are a few suggested amp settings that can be used as starting points to define your own sound.

*** Contour note:**

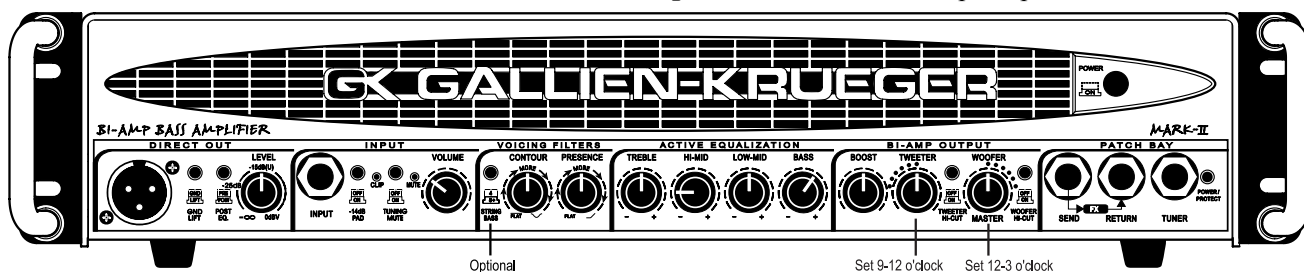
At higher playing levels the contour should be set lower for mid-range clarity. To get 800RB voicing, the contour should be set to 0 or 10 only.

*** Volume note:**

Adjust volume before playing these recommended settings.

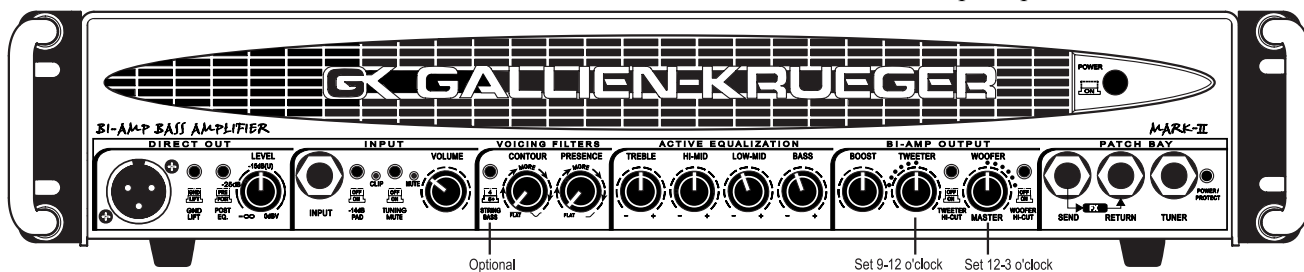
Slap:

Both pickups recommended.



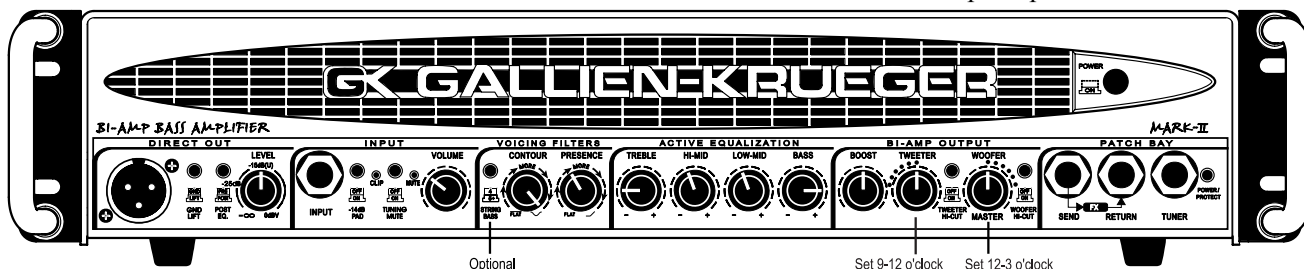
Rock:

Both pickups recommended.



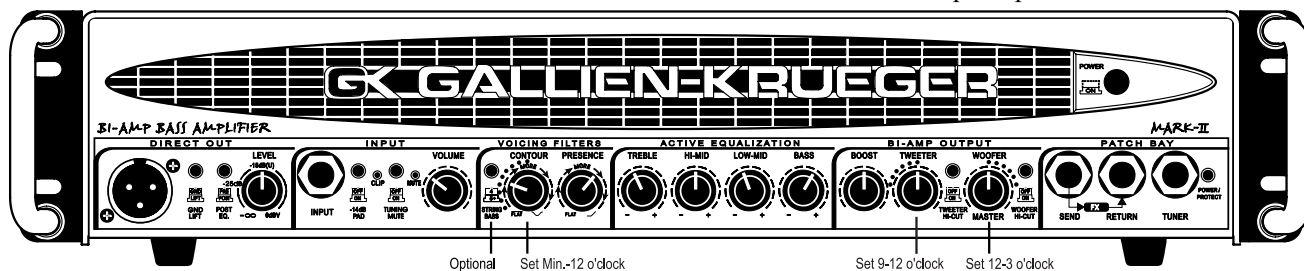
Reggae:

Front pickup recommended.



Jazz/Fusion:

Both pickups recommended.



Installation and Maintenance

Installation:

- To insure proper operation and to avoid potential safety hazards, place the unit on a firm, level surface. When installing the unit in a rack, be sure the mounting hardware can support the amplifier's weight. To save space in your rack, the 1001RB-II/700RB-II's feet can be removed using a Philips head screw driver.
- Make certain that proper space is provided for ventilation. The 1001RB-II/700RB-II Series requires at least ½ inch clearance above for proper ventilation. Never block the fan vent holes in the top or front of the amplifier. If the amplifier will be installed in a rack or other enclosed area, make sure that there is sufficient air movement within the enclosure to allow proper cooling. 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 heat sink fins and ventilation slots that form part of the enclosure are specially designed to remove this heat. Placing other electronic equipment near these heat-dissipation systems 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 interconnection cords with other components, and make sure that you disconnect the unit from the AC outlet.

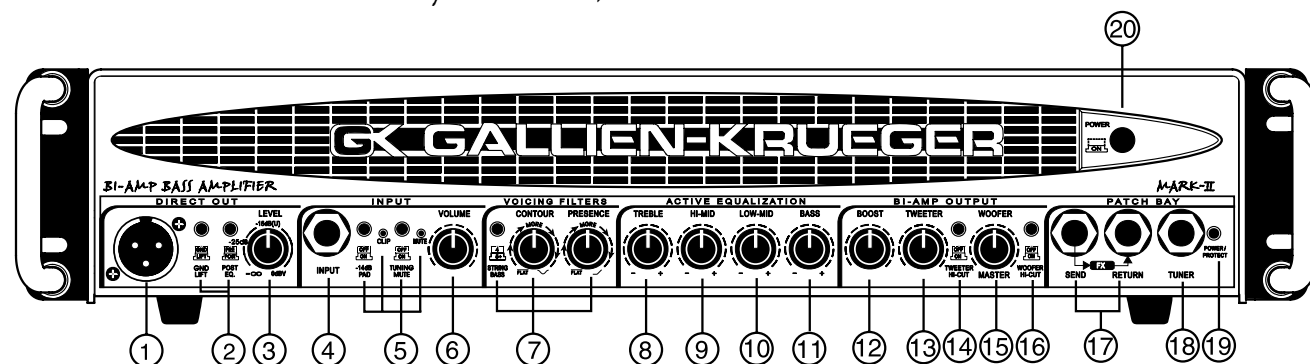
Cleaning:

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.

700RB-11/1001RB-11 Series



Front Panel Controls

1-Balanced Direct Out:

An electronically balanced output, that you can run to your PA system.

2-Ground/Lift:

This switch disconnects the ground on the balanced, XLR output to eliminate hum and buzz when connecting to equipment that is running on a different ground system.

Pre/Post EQ Button:

Selects the direct out signal before or after the EQ.

3-Direct Level Out

Controls the level at the direct out jack.

4-Input:

A standard 1/4" input jack to plug in active or passive basses using a shielded cord.

5- -14dB Pad:

Input attenuator button. The button is generally left out, except in rare cases when the clip LED flashes. This switch should be pressed if the CLIP LED stays on continuously. It may be necessary to "pad" the input if you are using a bass with active electronics or very high output.

Clip LED:

LED lights yellow when the input stage is being over-driven. If -14dB PAD is pressed and clip LED still stays lit, turn down the volume on your bass.

Tuning Mute Button:

Set this switch to "On" when tuning up. No signal will be sent to the speakers, or the PA system.

Mute LED:

LED turns on when "Tuning Mute" is switched to the "ON" position.

6-Volume:

Sets pre-amp gain after the input stage. It is used in conjunction with the input pad, to optimize the amplifier's headroom.

7-Voicing Filters:

4/5 String Bass:

Setting this button to the "ON" position, voices the pre-amp for basses with "B" tuning (5 string bass). Leaving it in the "Out" position will voice the amp like the 800RB, for a 4 string bass.

Contour:

Drops the mid-range frequencies while boosting lows & highs.

Presence:

Adds edge and definition to higher frequencies.

Active Equalization:

8-Treble:

Boost and cut at 7 kHz \pm 14dB shelving type. Add or remove edge and definition.

9-High Mid:

Boost and cut at 1 kHz \pm 6dB/-10dB, "Q Optimized," band pass type. Works on lower string harmonics, and effects the punch of your sound.

10-Low Mid:

Boost and cut at 250Hz \pm 6dB/-10dB, "Q Optimized," band pass type. Works on the main body of your sound.

11-Bass:

Boost and cut at 60Hz \pm 10dB, shelving type. Controls low end push.

12-Boost:

A post EQ gain stage using GIVE technology which adds "growl" as it is turned up.

13-Tweeter:

Master volume control for the tweeter (50W) amp.

14-Tweeter Hi-Cut:

Cuts frequencies above 10kHz, producing a more "cone-like" (less metallic/harsh) sound from the tweeter.

15-Woofer/Master:

Master volume control for the woofer (Main) amplifier.

16-Woofer Hi-Cut:

Press this button to engage the electronic crossover for the woofer. This cuts frequencies above 5kHz (Rolls off the highs).

17-Effects Loop:

Send and return jacks provided for the insertion of effects after the EQ, but before the boost section. Some effect units have gain, turning the BOOST down, will compensate for this.

18-Tuner Output

Output comes directly off the input stage and can be patched to a tuner with a shielded patch cord. This output is unaffected by the Tuning Mute Feature.

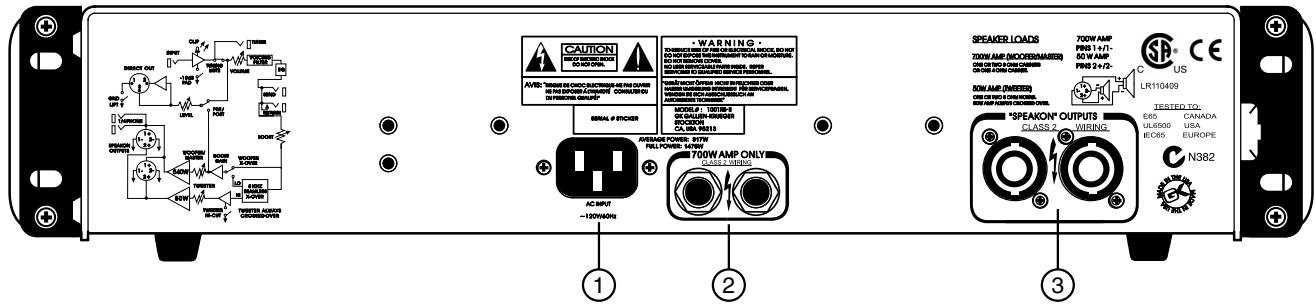
19-Power/Protect LED:

The LED is red at turn-on for five seconds while the amp powers up. The LED turns blue when the amp is ready to play. Should the amp experience a fault (over heat, over current) the amp will mute and this LED will switch to red until the condition is corrected. This LED turns off when the power switch is turned off.

20-Power Switch:

Turns the amplifier on or off. Should a problem occur during operation press this switch out first. This turns the amp off, but does not completely disconnect the power from the AC mains. The power LED should be off at this point.

700RB-II/1001RB-II Series



Rear Panel Controls

1-AC Receptacle:

The power cord is detachable and plugs in here.

2- 700W/480W Amp Only:

700W/480W power amp output for Full-Range operation only. They deliver 700W/480W into 4 Ohms. Lower impedances should not be used. Higher impedances such as 8 Ohms, 16 Ohms, or No Load are acceptable. One 8 Ohm cabinet is okay. One 4 Ohm and one 8 Ohm is not recommended. No damage will result from operating the amplifier with the speakers disconnected.

3- "Speakon" Outputs:

Enables BI-AMP operation by connecting a GK-RBH Series cabinet with the provided 4 conductor Speakon cable. This connects the Tweeter/50W amplifier allowing the Tweeter control on the front panel to control the signal going to the horn. See Bi-Amp and Normal Operation on page 7 for more information.

Caution:

Do not connect a Speakon cable labeled "Bridge Mode" to the 1001RB-II/700RB-II. This may result in damage to the amplifier.

Maximum Recommended Load:

One 4 Ohm or two 8 Ohm cabinets on the Woofer/Main Amp.

One or two 8 Ohm horns on the 50W Amp.

CAUTION:

UNDER NO CIRCUMSTANCES SHOULD THE WOOFER/MAIN AMP AND THE 50W/TWEETER AMP BE CONNECTED TOGETHER OR BE CONNECTED TO THE SAME SPEAKER !!!

1001RB-II/700RB-II Series Combos

The 1001RB-II/700RB-II Series combos deliver the 1001RB-II/700RB-II's unique features and distinct sound by using a variety of internal speaker configurations, GK's RBH cabinet technology and a unique Lock N' Roll transport system.

Speaker Configurations:

1001RB/115 or 700RB/115:

One 8 Ohm 15" speaker and
one 8 Ohm horn.

1001RB/210 or 700RB/210:

Two 16 Ohm 10" speakers
(wired in parallel for an 8
Ohm equivalent load) and
one 8 Ohm horn.

The 1001RB-II/700RB-II combo electronics are identical to the 1001RB-II/700RB-II head and are rated for the same maximum power output and speaker load (700W/460W into 4 Ohms, and 480W/320W into 8 Ohms). Maximum power is achieved by connecting one 8 Ohm extension cabinet (such as the 210RBH, 410RBH, or 115RBH) in addition to the combo's internal 8 Ohm speaker load. To drive more than one extension cabinet, the combo's internal speaker can be disconnected by unplugging the Speakon cable connected to the combo's back panel. Below is a detailed description of the maximum loads the combos can drive.

Maximum recommended load with the internal speaker connected:

One 8 Ohm cabinet on the Woofer/Main Amp.
One 8 Ohm horn on the 50W/Tweeter Amp.

Maximum recommended load with the internal speaker disconnected:

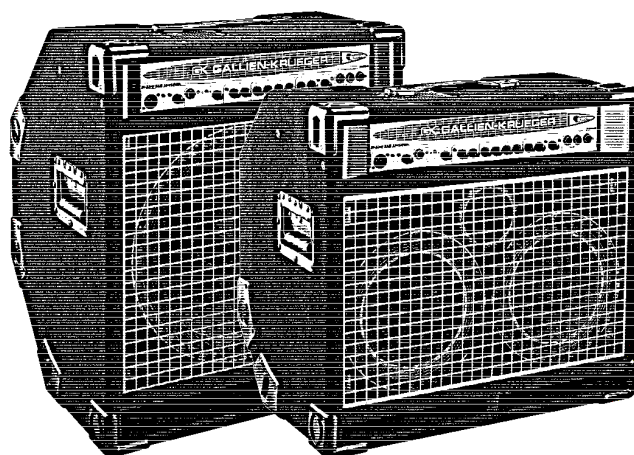
One 4 Ohm, or Two 8 Ohm cabinets on the Main/Woofer Amp.
One or Two 8 Ohm horns on the 50W/Tweeter Amp.

Lock N' Roll Transport System:

The Lock N' Roll transport system is designed for quick and easy rolling of the combo on flat surfaces such as carpet, flooring, pavement, etc. To engage the lock and roll handle, first move the combo into the upright position (front perpendicular to the ground). Next, stand behind the cabinet, with your left hand, push the GK locking latch (below the handle) to the right, and lift the Lock N' Roll handle up with your right hand. Let go of the locking latch and the handle will lock into place after about 1 1/2 feet. Finally, grab the handle and tilt towards the back of the combo. The wheels on the bottom of the cabinet will automatically engage and allow smooth rolling.

To disengage the Lock N' Roll system, first return the combo to its upright position and stand behind the unit. Next, with your left hand, pull the locking latch at the base of the handle to your right, while pushing the handle down gently with your right hand. Finally, push the handle down until it stops and is flush with the top of the combo. The handle will lock into place.

The 1001RB-II/700RB-II Series combos are designed for maximum setup versatility to accommodate a variety of playing situations. For practicing and close monitoring situations, tilt the cabinet back into its "Rock Back" position. For stronger bass and audience projection, leave the combo in the upright position.



700RB-II/1001RB-II Series

Tech Talk

Characteristics of the 1001RB-II/700RB-II:

The 1001RB-II/700RB-II Series is a flexible, state-of-the-art Bass Amplifier, designed to deliver maximum performance, and be simple to operate. This is accomplished through a few, very important features:

- Extremely high current power supply and power amp circuitry, gets the sound out of your head.
- Bi-Amp sound, two power amps, 700W/480W for the woofer, and 50 Watts for the horn.
- Electronic crossover, seamless two way sound.
- Four, Bass specific bands of active equalization for precise tone control.
- Three voicing filters for shaping and customizing your sound.
- Balanced direct output with level control eliminates need for a direct box.
- Continuously variable fan cooling.

Current Output & Bass Response:

When a power amplifier is pushing several speaker cones, and a high-power transient like a string slap comes along, the amp has to tap into a large power reserve to maintain cone control. If the amplifier doesn't have this ability, the sound is unresponsive and less out front. The amp loses its punch and feel at higher playing levels. Instead of responding to your every command, the amplifier simply cuts those transients off, leaving you with the feeling that something is missing in your sound.

Since most amplifiers have limited output current capacity, they need "current limiting circuits" to protect against self-destruction. High-power transients trigger these circuits, which rob the amplifier of its ability to control speaker cones. This creates a mushy, unresponsive feel to your sound.

The 1001RB-II/700RB-II Series has extremely high current capacity, so it doesn't need current limiting circuits for over-load protection.

There is nothing in the 1001RB-II/700RB-II Series power amp to come between you and your sound except faithful, raw power.

Bi-Amp Sound:

Bass players have always liked the growl they get from slight overdrive. In GK amps this comes partly from the boost circuits and partly from the power amp. The problem is that growl, sounds great through woofers, and horrible through horns. In the typical full range system with a passive crossover, there is no way to get

growl and keep the definition that the horn provides. The horn always has to be turned down. In a Bi-Amp system like the 1001RB-II/700RB-II Series, the woofer and the horn, each have their own power amp, allowing us to get growl in the woofer only, while keeping the horn sound crystal clear. Now you can over-drive the woofer as much as you want, and leave the horn all the way up, keeping the definition it brings to your sound. Running the 1001RB-II/700RB-II Series in Bi-Amp mode through a GK-RBH cabinet, for the first time allows full access to the benefits of Bi-Amp sound. This is the reason the 1001RB-II/700RB-II Series is a Bi-Amp, and it is the reason you will be able to explore an entirely new territory of Bass sound.

Electronic Crossover:

Bi-Amp systems allow the crossover to be electronic and therefore, have much higher quality than passive crossovers. A crossover separates the sound into two parts (high and low frequency). The highs are sent to the horn or high frequency cabinet and the lows are sent to the woofer. In an ideal system, adding the highs and the lows back together would recover the original signal. Most passive Bass systems have very poor crossovers, resulting in severe signal corruption. When these signals are added back together (as in your ear), they have very little in common with the original signal. The 1001RB-II/700RB-II Series uses a Constant Voltage crossover which results in very little signal corruption. In fact, when the high and low signals are added back together, the result is extremely close to the original. This makes a two-way system sound more seamless, and less artificial. We have also included a Tweeter Hi-Cut switch in the crossover, which rolls the tweeter off above 10kHz giving it a less glassy, more cone like sound.

Equalization:

Standard tone controls and graphic equalizers give you plenty of variation, but they don't provide what the instrument really needs. The fact is, graphic equalizers are intended for room equalization. The equalization in Gallien-Krueger amplifiers reflects 30 years of continuous development and refinement. The GK equalizer is unique to the industry, it's not just a normal four band equalizer, each section is a special circuit optimized to perform a Bass specific job in its range of operation. These sections are wired in Series, so they add to one another creating a tremendously flexible equalizer, that doesn't sound weird at any setting. Now it is possible to obtain the sound you desire.

Voicing Filters:

Voicing filters are used to completely re-voice the amplifier. In the case of the Contour and String Bass controls, the effect is dramatic.

The Contour is used to completely revoice the amplifier. The Contour control tunes between two different shaping circuits, with greatly different response. With the control all the way up, the low end is slightly boosted, the mids are dropped and the high end is pushed up. This is only found in GK amplifiers.

The way a Bass amp deals with the instrument low string is a critical part of it's sound. In fact, a five string instrument requires an entirely different low end response than a four string instrument. No equalizer can make the necessary adjustments to accommodate both, however the String Bass button on the 1001RB-II/700RB-II Series does just that. When it is out, the 1001RB-II/700RB-II is voiced like the 800RB. Push it in and the 1001RB-II/700RB-II is voiced for five string instruments. For some playing styles you may want it in, even with a four string instrument.

Low Noise Operation:

The 1001RB-II/700RB-II Series uses a high gain, high headroom, low noise input stage. It has such a large dynamic range (60v p-p) that very few instruments can overdrive it. Even most basses with "active" electronics do not need the input attenuator to be set. The benefit to you is less hiss from your horn, and over all, much less noise.

"G.I.V.E." Technology:

As in all GK pre-amps, the 1001RB-II/700RB-II Series pre-amp incorporates what we call G.I.V.E (Gate Induced Valve Effect) Technology. We use field effect devices with the gate biased in a way that emphasizes the optimum harmonic content of the signal. Working in concert with our unique Four Band Active Equalizer, and three stage Voicing Filter Section, G.I.V.E. technology produces a consistently pleasing bass tone.

Cool Running = Reliability:

The 1001RB-II/700RB-II Series uses a "dual rail power supply" that generates about half the heat of conventional amplifiers. Low output signals run off a low voltage supply, and high level signals run off a high voltage supply. This keeps the amp running a lot cooler and makes it much more reliable. To cool the amp when its being driven hard, we've designed a temperature sensitive fan cooling system. When the amp is under a light load, the fan is off or running at

a low speed, reducing fan noise. As the amp works harder, the fan speed increases to keep everything cool.

Smart Protection Circuitry:

The 1001RB-II/700RB-II's protection circuitry constantly monitors for unsafe operating conditions such as short circuits, miss-wired speaker cables, blown speakers, improper ventilation, and incorrect speaker configurations. In addition, protection is provided during power up/down. If the 1001RB-II/700RB-II senses any unsafe operating conditions, the output signal is immediately muted and the power light changes from Blue to Red. The amplifier will remain muted until the fault is removed. If the protection circuit activates while playing, turn the amplifier off and check the amplifier speaker output connections. Be sure that you are not exceeding the maximum recommend load described in this manual. If the problem persists, contact GK directly for technical advice.

Speakon Cables:

To make use of the 1001RB-II/700RB-II's Bi-Amp feature you will need to use the four conductor Speakon style cable (provided with the 1001RB-II/700RB-II head, and built into the combos for connection to the internal speaker) to connect to a GK RBH/SBX Series cabinet. This specially designed cable carries the signals for both amplifiers (700W/480W Woofer Amp and 50W Tweeter Amp) to the speaker cabinet. Below is a table describing the Speakon cable connections to the 1001RB-II/700RB-II head and combos.

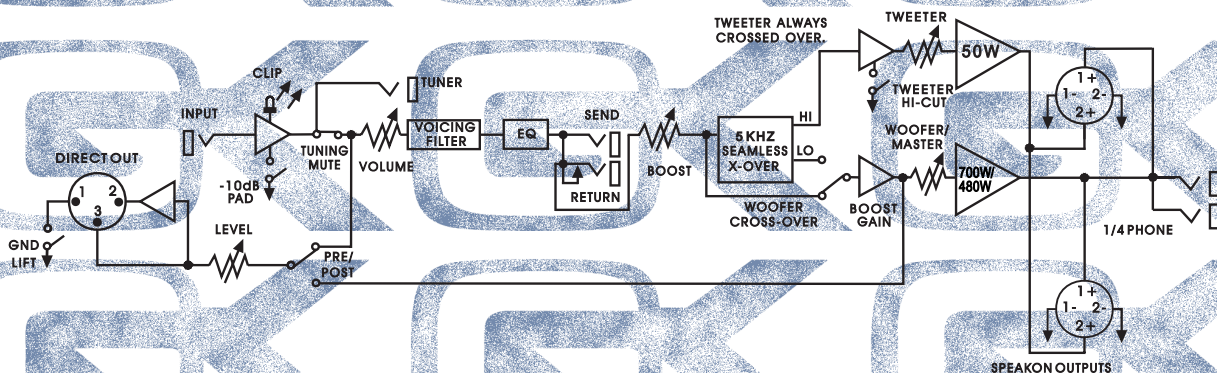
Speakon Pin #	Signal
1+	Woofer/Main Amp +
1-	Woofer/Main Amp -
2+	50W /Tweeter Amp +
2-	50W /Tweeter Amp -

To obtain an additional 4 conductor Speakon cable for use with the 1001RB-II/700RB-II please contact your local dealer or contact GK directly.

In Closing:

You should now have a thorough understanding of how your new 1001RB-II/700RB-II Series amplifier works and what advantages it can offer you in getting "your" sound. We thank you for reading the Owner's Manual and wish you the best of times! Please send us your comments via www.gallien-krueger.com or email us at sales@gallien.com.

Block Diagram



1001RB-II/700RB-II Series Specifications:

Output Power:

1001RB-II:
700W Amplifier 460W @ 8 Ohms
700W @ 4 Ohms

700RB-II:
480W Amplifier 320W @ 8 Ohms
480W @ 4 Ohms

50W Amplifier 50W @ 8 Ohms
75W @ 4 Ohms

Input Section:

Maximum Input Level 0.6V Rms
With -10dB pad 1.6V Rms
Input Impedance 1M Ohm
Send output impedance 220 Ohm
Return input impedance 50k Ohm
Tuner Output Impedance 10k Ohm
Direct Output Impedance 500 Ohms

Equalizer:

Bass $\pm 10\text{dB}$ @ 60Hz
Lo-Mid $+6\text{dB}/-10\text{dB}$ @ 250Hz
Hi-Mid $+6\text{dB}/-10\text{dB}$ @ 1kHz
Treble $\pm 14\text{dB}$ @ 7kHz

Voicing Filters:

String Bass Button $+11\text{dB}$ @ 20Hz
Contour $+2\text{dB}$ @ 50Hz /
 -10dB @ 500Hz /
 $+3\text{dB}$ @ 7kHz

Presence $+9\text{dB}$ @ 10kHz

Crossover Triple pole constant
voltage crossover at 5kHz

Noise -90dB referenced to 700W/480W,
"A" weighted

Cooling: Continuously Variable-
Speed Fan

Amplifier Protection:

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

Dimensions (HxWxD):

3 1/2" x 17" x 8 1/4"
(2 Rack Spaces)

Weight:

700RB-II: 16.5lbs
1001RB-II: 18lbs.

Power Requirements:

U.S.A./Canada 120V/60Hz
700RB-II: 994W(full power), 230W(average power)
1001RB-II: 1476W(full power), 317W(average power)

Europe 230V/50Hz
700RB-II: 994W(full power), 230W(average power)
1001RB-II: 1476W(full power), 317W(average power)

Japan 100V/50Hz
700RB-II: 994W(full power), 230W(average power)
1001RB-II: 1476W(full power), 317W(average power)

GK GALLIEN-KRUEGER