Operating Instructions

2000RB

GK GALLIEN-KRUEGER

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Introduction

We are very proud of the 2000RB, G-K's most powerful bass amplifier to date, and in many ways, the culmination of 27 years in the amplification business. The 2000RB was designed with you in mind - to be your personal creative tool, to give you the ultimate bass response and tone. We've learned many things by talking to bass players like you for almost three decades. We know you want lots of headroom and raw power, yet you want your amp to be dead quiet and free of noise. You need fast response and clarity. And perhaps most of all, you want all that great performance night after night, year after year, from and amp that will never let you down.

The 2000RB is definitely not just another high power bass amp. Its High Current Capacity output stages - capable of delivering instantaneous power of 10,000 watts - are revolutionary. Its relay-activated Fault Detection Circuitry is state - of - the - art. All the design parameters for the 2000RB are optimized for response, headroom, and reliability.
Like all G-K bass amps, the 2000RB is user friendly. It's easy to get the sound you're looking for - in fact, it's hard to get a bad sound. We took all the same responsive bass tone G-K amps are known for, and made it even better. We think you will be very pleased with your new 2000RB. We are.

Bob Gallien & Rich Krueger

2000RB Features

Power : 500 watts RMS per channel into 2 ohms in Stereo or Bi-amp Mode, 1000 watts RMS into 4 ohms in Bridge Mode.

High Current Capacity : 60 amps peak current (5,000 watts of instantaneous power) per channel gives the 2000RB unparalleled transient response with complete control over the movement of your speakers.

Low Noise Operation : Both preamp and power amp stages have increased headroom so that noise (hiss) is barely perceptible.

Three possible operating modes : Bridge Mode, Bi-amp Mode, and Stereo Mode.
Fault Detection Circuitry : Relays automatically disconnect the amplifier from your speakers during power up/down, or if any unsafe operating conditions occur.

Dual power supplies : Each power amp has its own power supply. In the unlikely event there is a problem in one channel, the other will not necessarily be affected.
Fan cooling : Temperature controlled, continuously variable fan speed.

Tuner output with footswitchable mute

Tunable Voicing Filters

Four Band Active Equalization

Boost 1 (Normal) & Boost 2 (High Gain) :
Footswitching between these two sections.
Give Technology : Gate Induced Valve Effect, used throughout for warm, "punchy" response.

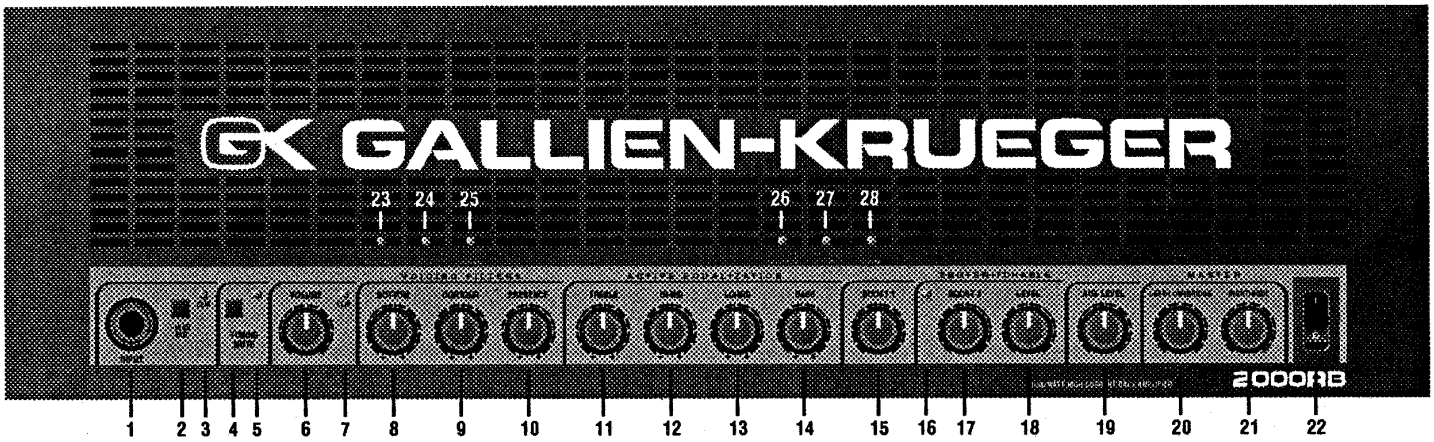
Parallel effects loop with Stereo Aux In and Aux Return Level

Direct/balanced output : Electronically balanced, low impedance output with variable level, pre/post & ground lift switches.

Electronic crossover : Variable frequency

High and low frequency sends

Speakon™ connectors : For reliable connection of high power/high current outputs to speaker cabinets.



Front Panel Features

(1) INPUT JACK
1/4" phone jack to plug in active or passive basses with a shielded cord

(2) -10 dB PAD
This switch should be pressed if the CLIP(3) light stays on continuously. It may be necessary to "pad" the input if you are using a bass with active electronics or very high output.

(3) CLIP
LED indicator which lights when the input stage is being over-driven. If -10dB PAD (2) is pressed and CLIP(3) still stays lit, turn down the volume on your bass.

(4) TUNING MUTE
Switch that mutes all outputs from the amplifier (speakers, direct and balanced outs) so you can tune up without sending signal to the audience or the P.A.. Tuning mute can be footswitch controlled by using a G-K RF2 footswitch, which will leave both hands free to tune your instrument. To control TUNING MUTE by footswitch, TUNING MUTE (4) switch must be "in"

(5) LED INDICATOR
Lights when TUNING MUTE is activated.

(6) VOLUME
Controls signal level at the beginning of preamp stages.
Volume should be turned up until the CLIP(7) light comes on when you're hitting your loudest notes. At this setting you will have the optimum signal/noise ratio. Remember that your settings in the VOICING FILTER and ACTIVE EQUALIZATION sections can also cause clipping. IF this occurs, re-adjust VOLUME as explained above.

(7) CLIP
LED indicator that lights when either VOLUME, VOICING FILTER, OR ACTIVE EQUALIZATION stages are being over-driven.

(8) BOTTOM
Voicing filter which boosts or cuts +/-12dB at very low frequencies (20Hz center freq.). Boost this control if you want to add more low-bass response. Or, keep it turned down if you want a tighter, less "boomy" bottom end.

(9) CONTOUR
Voicing filter that boosts highs (4kHz) and lows (80Hz), while dropping out mids (600Hz). Most players use this control between half and maximum to create a "round" or "hi-fi" sound. Use lower settings for a "flatter" response.

(10) PRESENCE
Voicing filter that boosts high frequencies (6.5kHz center freq.) by as much as 12dB. This control adds "edge" to help you cut through the mix.

(11) - (14) ACTIVE EQUALIZATION
Four highly active tone controls, TREBLE, HI MID, LO MID, AND BASS. Each band of EQ creates wide tonal variations without affecting the other bands.

(15) BOOST 1
A post EQ gain stage using GIVE Technology which adds "growl" as you turn it up. The RF2 footswitch allows you to switch between BOOST1 and BOOST 2.

(16) LED INDICATOR
Lights when you have footswitched into the BOOST 2 mode.

(17) BOOST 2
A post EQ gain stage like BOOST 1, except this stage has higher gain for "lead-bass" or solos. Use BOOST 2 with LEVEL (18) to create the desired amount of overdrive. Note: You can only access the BOOST 2 section via the RF2 footswitch.

(18) LEVEL
Determines the level coming out of BOOST 2 section. Used to set a different volume level for solos.

(19) AUX LEVEL
Controls signal level coming from STEREO AUX IN (20).
Creates effects blend (dry vs. wet) when used in a "parallel" effects loop. Can also be used to mix in any stereo source such as tape or CD.

(20) LEFT - LOW - BRIDGE
Master volume that controls output level to speakers. In "Stereo Mode", controls output of LEFT channel. In "Biamp Mode"", controls output of LOW frequency amplifier. In "Bridge Mode", controls output level of the entire amplifier.

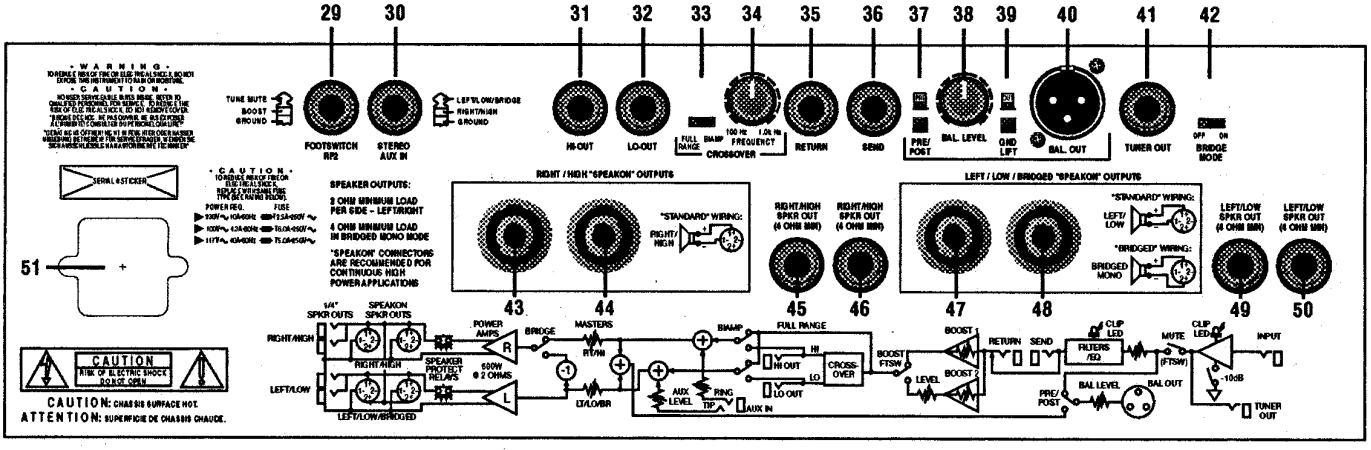
(21) RIGHT-HIGH
Master volume that controls output level to speakers. In "Stereo Mode", controls output of RIGHT channel. In "Biamp Mode", controls output of HIGH frequency amplifier. In "Bridge Mode", this control is inactive.

(22) POWER SWITCH

(23) & (26) PROTECT
LED indicators that light when L&R channels power up, power down, or whenever the FAULT DETECTION CIRCUITRY relays have disconnected the 2000RB from your speakers.

(24) & (27) CLIP
LED indicators that light when L&R channels are clipping.

(25) & (28) POWER
LED indicators that light when L&R channels are in normal operation.



Rear Panel Features

Note : The block diagram of the 2000RB is printed on the rear panel and describes the signal flow from input to output. Many of your questions about the use and functions of the 2000RB are explained in this diagram.

(29) FOOTSWITCH RF2

1/4" stereo phone jack that connects to RF2, two button footswitch, via stereo cable. This jack is wired so that TUNING MUTE is controlled by the "tip", BOOST 2 is controlled by the "ring", and the "sleeve" is ground.

(30) STEREO AUX IN

1/4" stereo phone jack that accepts a stereo, line level input. Can be used as a stereo effects return in a "parallel" effects loop, or to mix in any stereo source such as tape or CD. The "tip" goes to the LEFT/LOW/BRIDGE channel, the "ring", goes to the RIGHT/HIGH channel, and the "sleeve" is grounded.

(31) HI-OUT

Line level signal output from the "high-pass" side of the electronic crossover (34). Use this output to "send" high frequencies to external effects such as chorus. High frequencies come out of HI OUT in all 2000RB operating modes.

(32) LOW-OUT

Line level signal output from the "low-pass" side of the electronic crossover(34). Use this output to "send" low frequencies to powered sub-woofers or external effects like an octave divider. Low frequencies come out of LO OUT in all 2000RB operating modes.

(33) CROSSOVER SWITCH

In the FULL RANGE position, the electronic crossover is bypassed and full range signals are sent to both the RIGHT and LEFT output channels. In the BIAMP position, the signal is divided into high and low frequency components before being sent to their respective output channels. This switch should be set to FULL RANGE if the 2000RB is operating in "Bridge Mode" or "Stereo Mode".

(34) FREQUENCY

Varies the crossover frequency from 100Hz to 1 kHz. Settings will be determined by your speaker configuration and personal preference.

(35) RETURN

Accepts line level return from external effects that are connected in a "series loop" (such as limiters, enhancers, etc.). Plugging into RETURN (35) opens the connection between the 2000RB preamp and power amp stages.

(36) SEND

Line level output that is post EQ and pre BOOST. Used when sending a full range mono signal to an external device (effects or slave amp).

(37) PRE/POST

Select the source for the XLR balanced output(40). In the "out" position, the direct output is PRE meaning that it comes right off the input stage, (after TUNING MUTE, before VOLUME), and is unaffected by any front panel controls except the -10dB PAD switch. The PRE position is used to take a balanced direct output to the house PA in a live situation where the soundman wants a signal unaffected by your VOLUME and EQ controls. In the "in" position the balanced output is POST (comes from the last point in the preamp, just before the master volumes) and is affected by all the front panel controls. A POST balanced output can be used for recording.

(38) BAL. LEVEL

Adjusts signal level of balanced output (40).

(39) GND LIFT

Ground lift switch that disconnects ground on balanced output (40) to eliminate hum.

(40) Bal. Out

XLR connector with electronically balanced, low impedance output, used to send signal to P.A. or recording consoles. Wiring for the XLR is "American Standard" : Pin 1 is ground, pin 2 is +, and pin 3 is-.

(41) TUNER OUT

Output that comes directly off the input stage, and can be patched to a tuner with a shielded patch cord.

(42) BRIDGE MODE

With this switch in the OFF position, each output channel functions independently ('Stereo Mode" or "Bi-amp Mode"). In the On position, both output channels are connected together and act as a single 1000 watt power amplifier.

(43)&(44) SPEAKON™ CONNECTORS

Deliver power from the RIGHT channel(if you are in "Stereo MODE"). HIGH channel (if you are in "Bi-amp Mode") to your speaker(s). Cables with Speakon™ connectors are recommended because of the high power/current output of the 2000RB. Refer to the section titled "SELECTING AN OPERATING MODE AND HOOKING UP YOUR SPEAKERS" for recommended Speakon™ cables.

(continues on the next page)

(45) & (46) 1/4'' CONNECTORS
Provided as back-up outputs for the RIGHT/HIGH channel. 1/4" connectors do not have the same power handling as Speakon™ connectors, and should only be used if Speakon™ cable are unavailable. Caution : You may not connect less than a 4 ohm load to either of these 1/4" connectors.

(47) & (48) SPEAKON ™ CONNECTORS
Deliver power from the LEFT channel (if you are in "Stereo MODE"), LOW channel (if you are in "Bi-amp Mode"), or BRIDGED (if you are in "Bridge Mode") to your speaker(s). Cables with Speakon™ connectors are recommended because of the high power/current output of the 2000RB. Refer to section title "CHOOSE AN OPERATING MODE AND HOOK UP YOUR SPEAKERS" for recommended Speakon™ cables.
Remember, if you are in the "Bridge Mode", you will need special Speakon™ Bridge Cables.

(49) & (50) 1/4'' CONNECTORS
Provided as back-up outputs for the LEFT/LOW channel. 1/4" connectors do not have the same power handling as Speakon™ connectors, and should only be used if Speakon™ cables are unavailable. Caution : You may not connect less than a 4 ohm load to either of these 1/4" connectors. If you are in "Bridge Mode" these 1/4" connectors are not functional.

(51) AC RECEPTACLE
Plug the power cord that is included with the 2000RB into this receptacle.

Selecting an Operating Mode & Hooking-up your speakers

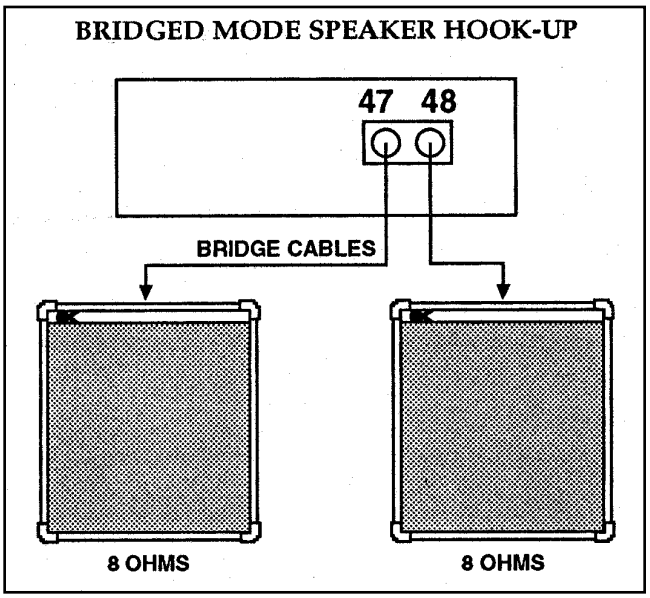
Before you power up your 2000RB, you must select the operating mode that is best for your situation : Bridge Mode, Biamp Mode, or Stereo Mode. This choice will largely be determined by the impedance and power handling of your speaker cabinets. The following table will help to show you how much power you can put into your speakers for each operating mode:

2000RB OUTPUT POWER

		BRIDGE MODE WATTS	STEREO OR BIAMP MODE WATTS
	COMBINED		
SPEAKER CONFIG.	IMPEDANCE	TOTAL	PER CHAN.
(1) 8 OHM CAB.	8 OHMS	700	225
(2) 8 OHM CABS OR (1) 4 OHM CAB.	4 OHMS	1000	350
(4) 8 OHM CABS OR (2) 4 OHM CABS	2 OHMS	NOT REC.	500

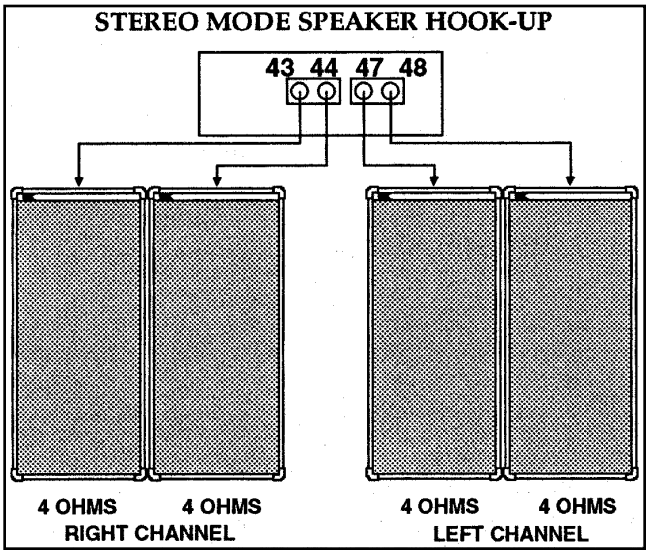
A note regarding speaker cable: The 1000RB is capable of delivering more power than typical speaker cables can handle. Therefore, at the end of each of the following sections, special Speakon™ equipped cables are recommended. Choose cables that match the connectors on your cabinets. These can be purchased through your G-K dealer.

BRIDGE MODE :
"Bridge Mode" allows you to put the most power into the fewest speaker cabinets. Note: You can not operate the 2000RB in "Bridge Mode" without special "Bridge Mode" cables.
In "Bridge Mode" both of the 2000RB's 500 watt power amps are connected together to drive your speakers. This allows you to put the maximum power (1000 watts) into a 4 ohm load (two



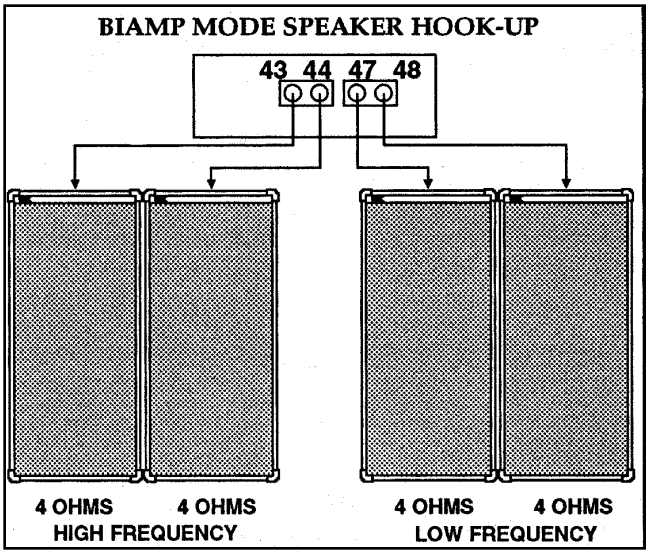
8 ohm speakers, or one 4 ohm speaker). Remember, you can not drive less than 4 ohms (no more than two 8 ohm speakers, no more than one 4 ohm speaker). You can drive a single 8 ohm speaker, but it must be able to handle 700 watts. Make sure your speaker cabinets can handle the power.
For "Bridge Mode" operation put the BRIDGE MODE switch (42) in the ON position. The BIAMP switch (33) must be in the FULL RANGE position or else only low frequencies will be sent to your speakers. You will need a "Bridge Mode" cable equipped with a Speakon™ connector to connect each of your speaker cabinets to jacks (47(& (48). Obviously, if you are using only one speaker cabinet, you will use one Speakon™ equipped cable to connect to either (47) or (48)

Recommended speaker cables:
G-K part no.: 304-0006-0 (Speakon™ -1/4" , "Bridge Mode" cable)
G-K part no.: 304-0008-0 (Speakon™ -"banana", "Bridge Mode" cable)
G-K part no.: 304-0010-0 (Speakon™ - Speakon™, "Bridge Mode" cable)



STEREO MODE:
"Stereo Mode" is used when you want a stereo output, or when your speakers are not the optimum impedance for "Bridge Mode".For example, if you happen to own two 4 ohm speaker cabinets, you can not use both at the same time in "Bridge Mode". However, in "Stereo Mode", each channel can drive up to two 4 ohm speakers or four 8 ohm speakers (total of 2 ohms per channel). In "Stereo Mode", each of the 2000RB's power amps operates independently, and delivers 500 watts into 2 ohms.
Note: Using fewer speakers (greater than 2 ohms per channel) is OK. Using more speaker cabinets (below 2 ohms per channel) is not recommended, and could result in the Fault Detection System disconnecting the 2000RB's output.

For "Stereo Mode" turn the BRIDGE MODE switch (42) to the OFF position. The BIAMP switch (33) should be in the FULL RANGE position. Then connect the RIGHT channel to your speakers via Speakon™ connectors (43) & (44), and if necessary, with 1/4" jacks (45) and (46). Remember you can not connect less than a 4 ohm load to either of the 1/4" jacks. Connect the LEFT channel to your speakers via Speakon™ connectors (47) & (48), and if necessary, with 1/4" jacks (49) and (50). Again, remember you can not connect less than a 4 ohm load to either of the 1/4" jacks. "Normal" Speakon™ cables are recommended for high power use:
Recommended speaker cables:
G-K part no.: 304-0007-0 (Speakon™ -1/4" , "Normal" cable)
G-K part no.: 304-0009-0 (Speakon™ -"banana", "Normal" cable)
G-K part no.: 304-0011-0 (Speakon™ - Speakon™, "Normal" cable)



BIAMP MODE:
"Biamp Mode" is used when you want to drive your low-end speakers with one channel of the 2000RB, and your high-end speakers with the other channel.

In "Biamp Mode" an electronic crossover divides the preamp signal into high and low frequencies and sends each to its own power amp. Low frequencies are routed to the LEFT CHANNEL and then to speakers that can handle bass. High frequencies go to the RIGHT CHANNEL and then to speakers that handle the high end. You then balance lows vs. highs with MASTER controls (20) and (21). Note : Each channel can drive up to two 4 ohm speakers of four 8 ohm speakers (total of 2 ohms per channel). Using fewer speakers (greater than 2 ohms) is OK. Using more speaker cabinets (below 2 ohms per channel) is not recommended, and could result in the Fault Detection System disconnecting the 2000RB's output.

For "Biamp Mode" turn the BRIDGE MODE switch (42) to the OFF position. Set the BIAMP switch (33) to the BIAMP position. Then connect the HIGH channel to your high frequency speakers via Speakon™ connectors (43) & (44), and if necessary, with 1/4" jacks (45) & (46). Remember you can not connect less than a 4 ohm load to either of the 1/4" jacks.
Connect the LOW channel to your low frequency speakers via Speakon™ connectors (47) & (48), and if necessary, with 1/4" jacks (49) and (50). Again, remember you can not connect less than a 4 ohm load to either of the 1/4" jacks. "Normal" Speakon™ cables are recommended for high power use:

Recommended speaker cables:
G-K part no.: 304-0007-0 (Speakon™ -1/4" , "Normal" cable)
G-K part no.: 304-0009-0 (Speakon™ -"banana", "Normal"cable)
G-K part no.: 304-0011-0 (Speakon™ - Speakon™, "Normal" cable)

Getting Your Sound

You should have already set your 2000RB for an operating mode that is compatible with your speaker cabinets. Also , You should have your speakers hooked up with the recommended cables. Now, connect the power cord to your amp and to a rounded (3prong) AC outlet that has at least 20 amps of capacity. Use a power cord which is 16 gauge or heavier.

1. PLUG IN YOUR BASS
For starters, turn the volume on your bass all the way up. You may need to adjust this later. If you have conventional tone controls on your bass, turn them all the way up. If your bass has active tone controls that boost and cut, set them in the flat position. You can fine tune these tone controls after you finish the following instructions.

2. INITIAL FRONT PANEL SETTINGS
Start by setting these front panel controls at 12 O'clock:
VOICING FILTERS (BOTTOM, CONTOUR, PRESENCE), ACTIVE EQUALIZATION (TREBLE, HI MID, LO MID, BASS), BOOST1 and BOOST2. Turn down VOLUME and MASTER control.

3. POWER UP
Turn on the power switch and wait about 5 seconds for the PROTECT lights to go off and the POWER lights to come on. This indicates that the system checks OK and protection relays have connected the 2000RB to your speakers.

4. CHECK TO SEE IF -10dB PAD IS REQUIRED
Play a few notes and notice if the CLIP (3) LED stays on continuously. If so, press the -10dB PAD(2) to prevent clipping

in the input stage. The CLIP indicator should only light when you hit your loudest notes. If it stays lit after you have pressed the -10dB PAD, turn down the volume on your bass.

5. ADJUST VOLUME FOR LOW NOISE OPERATION
Turn up VOLUME(6) as you play, and set it so the CLIP (7) LED comes on with your loudest notes. Save this setting-it will give you the best signal to noise ratio. You may have to come back and re-adjust VOLUME once you have found VOICING FILTER and ACTIVE EQ settings you like. You may have to reduce VOLUME (which also determines the SEND level) to prevent your external effects from being overdriven. You can now set the MASTER control for comfortable listening.

6. VOICING FILTERS

CONTOUR:
Many players like CONTOUR, so start by setting this control between 12 and 3 O'clock. CONTOUR drops mids while boosting highs and lows, which creates a "round" sound. If you like a flatter response ("funk"e.g.)try experimenting with CONTOUR settings between 9 and 12 O'clock.

BOTTOM:
If you want lots of low end response, try boosting BOTTOM above 12 O'clock. If you want the tone of older G-K amps, try setting Bottom between 10 and 12 O'clock.

PRESENCE:
Presence will add "edge" so you can cut through the mix. Try settings below and above 12 O'clock until you find one you like. Note: PRESENCE adds high end-too much can also create unwanted "hiss".

7. ACTIVE EQUALIZATION
Once you have your VOICING FILTER settings, use the ACTIVE EQ to "tailor" your tone. While you play, adjust each EQ control all the way up and all the way down from the center position, until you find settings you like. Let your ears be the judge. There are no EQ settings that can harm your amp.

8. BOOST 1
Most players use BOOST because it adds "growl" (an effect that is very noticeable but hard to describe). Start with BOOST 1 set between 10 and 1 O'clock, and experiment with settings above and below.

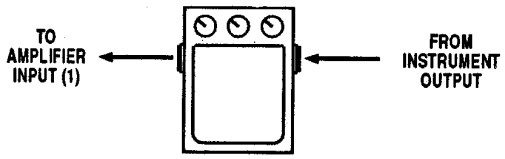
9. BOOST 2 & LEVEL
BOOST 2 (which is only activated by footswitch) gives you a more pronounced BOOST effect for solos. In the higher settings, BOOST 2 is slightly overdriven. Use LEVEL to set your volume for solos.

10. MASTER
Now that you have your basic tone, use the MASTER control to set your loudness(stage volume).
Remember, (20) LEFT-LOW-BRIDGE does the following :
In "Stereo Mode", controls output of LEFT channel. In "Biamp Mode", controls output of LOW frequency amplifier. In "Bridge Mode", controls output level of the entire amplifier.

(21) RIGHT-HIGH does the following:
In "Stereo Mode", controls output of RIGHT channel. In "Biamp Mode", controls output of HIGH frequency amplifier. In "Bridge Mode", this control does nothing.

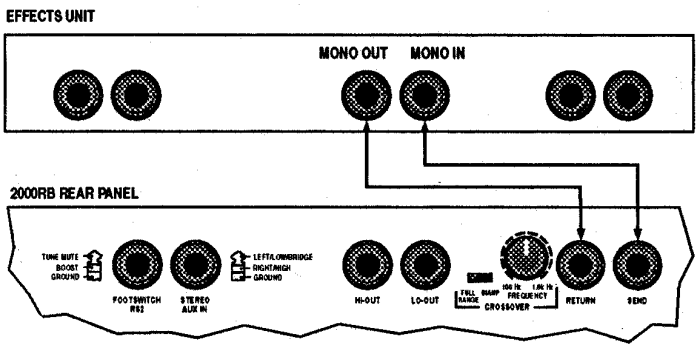
Using Effects

1. In line with the input
Effects like compression work best when connected in line with the input of the 2000RB. Many players also connect other "stomp box" type effects in line with the input because it is so easy. Except for compression, however, this is not the best configuration for low noise, since it amplifies any noise created in your effects by the gain of the whole amplifier.



Come out of your instrument with a shielded patch cord, into the effects unit, and from there into the INPUT of the 2000RB.

2. "Series" effects loop
A "Series" effects loop is a simple and effective way to use effects like chorus, delay, or reverb with the 2000RB. It is also the best configuration for a limiter. Putting effects in a "loop" results in much lower noise than "in line with the input". In a "series" effects loop, effects are connected in "series" between the 2000RB's preamp and power amp stages. The "series" effects loop can be used in any of the 2000RB's operating modes: "Bridge Mode", "stereo Mode", or "Biamp Mode".



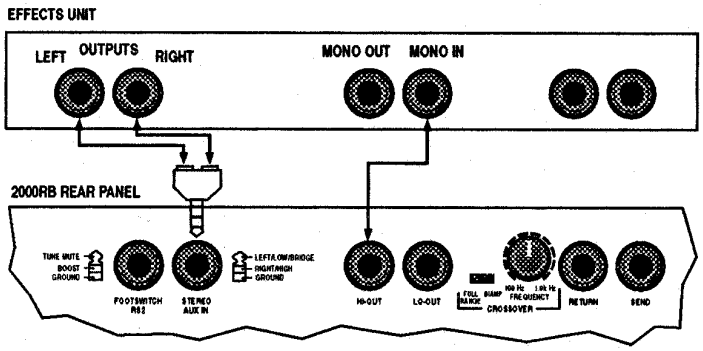
Connect SEND(36) to the "mono" input of an external (effects) device. Come out of the "mono" output of your effects unit into RETURN(35). SEND(36) is post VOLUME, and post EQ. If the SEND signal is too "hot", it can overdrive your effects unit, and it may be necessary to reduce VOLUME (6) until the unwanted distortion in your effects goes away.

Note : In a 'Series" effects loop use only the SEND (36) to go to your effects. Do not try using HI OUT (31) or LO OUT (32) in conjunction with RETURN (35) because this will cause your system to oscillate.

3. 'Parallel" effects loop

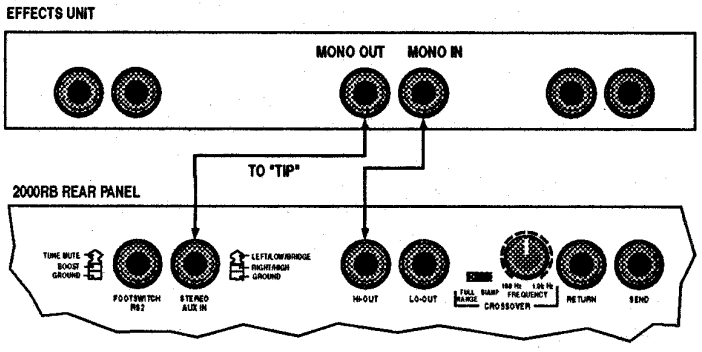
A "parallel" effects loop offers you the flexibility of having effects only on your "highs" (e.g.chorus) or only on your "lows" (e.g. octave divider). Also known as a "side chain", this configuration works like the "effects buss" on a professional mixing console. A line level signal is taken from either SEND(36),HI OUT (31), or LO OUT (32) , routed to an external effects unit, and finally brought back to the 2000RB via the STEREO AUX IN(30). Then AUX LEVEL(19) is used to mix the effects signal with the main signal, which creates an effects blend("wet" vs. "dry").How you configure a "parallel" effects loop will depend on which operating mode your 2000RB is using ("Bridge Mode", "Stereo Mode", or "Biamp Mode").

Bridge Mode - Option A



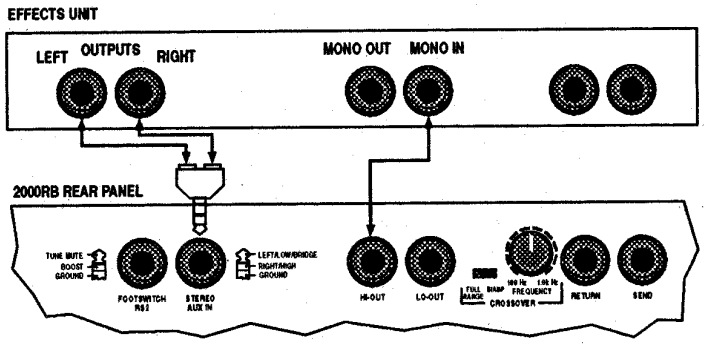
If you are running your 2000RB in the "Bridge Mode", this configuration offers the most flexibility since you can put effects either on the high-end only, the low-end only, or full range.
Set BRIDGE MODE switch (42) to ON.
Set Biamp switch (33) to FULL RANGE>
Choose either HI OUT(31), LO OUT(32), or SEND (36) to go to your effects unit.
If you want effects like chorus on your high end only:
Take the HI OUT (31) into the "mono" input on your chorus effect. If your effects unit has a blend control, set it for maximum effect. Take the stereo outputs from your effect through an adapter into STEREO AUX IN (30). Then use AUX LEVEL (19) on the front panel to control your effects blend. Note : This configuration will add extra high end (whether your effects are on or off), so you may have to adjust your EQ to compensate.
If you want to use effects like an octave divider on your low end only : Take the LO OUT(32) into the "mono" input of your effects unit. Take the stereo outputs from your effects unit through an adapter into STEREO AUX IN (30). Use AUX LEVEL (19) on the front panel to control your effects blend.
Note : This configuration will add extra low end (whether your effects are on or off), so you may have to adjust your EQ to compensate.
If you want effects on your highs and lows (full range) :
Take SEND (36) into the "mono" input of your effects unit.
Take the stereo outputs from your from your effects unit through an adapter and into STEREO AUX IN (30). Use AUX LEVEL (19) on the front panel to control your effects blend.

Bridge Mode-Option B:

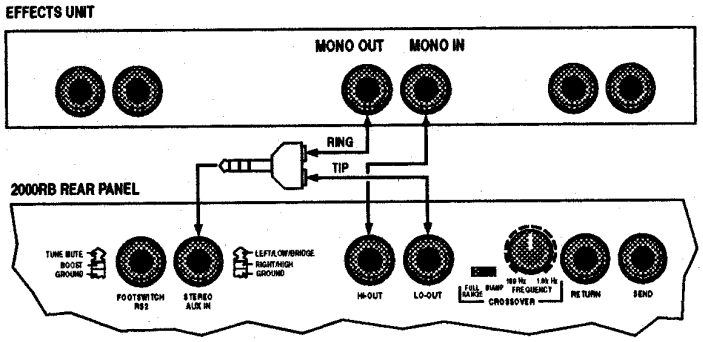


For effects on the high-end only. This configuration is easier to use than Option A since it does not require special adapters, and you will not need to re-adjust your EQ controls.
Set BRIDGE MODE switch (42) to ON.
Set Biamp Switch (33) to BIAMP.
Connect HI OUT (31) to the "mono" input of your effects unit. With a "mono" patch cord, come out of the "mono" output of your effects unit, into the "tip" of the STEREO AUX IN (30). If your effects unit has a blend control, set it on minimum effect.
Note : When you are in "Bridge Mode" and the biamp switch (33) is on BIAMP, you will not have any high end unless you turn up AUX LEVEL (19) to about the 10 O'clock position. Set AUX LEVEL (19) for the desired amount of high end, then use the blend control on your effects unit to give you the desired amount of effect.

Stereo Mode:



Biamp Mode:



If you are running your 2000RB in "Stereo Mode", this configuration allows you to have stereo effects on your high end only, low end only, or full range.
Set BRIDGE MODE switch (42) to OFF.
Set Biamp switch (33) to FULL RANGE.
Choose either HI OUT (31), LO OUT(32), or SEND (36) to go to your effects unit.

Repeat the same steps from the section on Bridge Mode-Option A above, depending on whether you want effects on high end only, low end only, or full range.

If you are running your 2000RB in the "Biamp Mode" this configuration allows your to put effects on the high-end only.Set BRIDGE MODE switch (42) to OFF.
Set Biamp switch (33) to BIAMP.
Connect HI OUT (31) to the "mono" input on your effect. If your effects unit has a blend control, set it for maximum effect. Connect the "mono" output of the effects unit to the "ring" side of a stereo adapter. Connect LO OUT (32) to the "tip" side of the same stereo adapter. Connect the other end of the adapter to STEREO AUX IN (30). Use AUX LEVEL (19) on the front panel to control your effects blend.

Measured Specifications

PREAMP:

Max Input : .6Vrms (1.6Vrms w/-10dB switch in)

Noise : -89dB (A-weighted, referenced to 6V pre amp output (EQ flat)

Active EQ : Bass : ± 10dB @ 60Hz
Lo-Mid : +6dB / -9dB @ 250Hz
Hi-Mid : +7.5 / -10dB @ 1kHz
Treble : ± 14dB @ 4kHz

Voicing Filters : Bottom : ± 12dB @ 20Hz
Presence : ± 10dB @ 7kHz
Contour : ± 5dB @ 40Hz, -10dB @600Hz, +10dB @8kHz

Impedances : Input : 1MΩ
Return : 40KΩ
Stereo Aux In: 5KΩ
Output : Send : 1KΩ
Tuner : 2.2KΩ
Hi/Lo Outputs : 1KΩ

Footswitch : GK model RF2 and standard 3 connector stereo cord (1/4" plugs)

Dimensions : (30lbs)
19"W x 5-1/4"H (3 rack spaces)x12"D (including knobs)

POWER AMP :

Output Power : Bridged : 4Ω 1kHz 1% THD 1000 watts
8Ω 1kHz 1% THD 721 watts
Per Channel: 4Ω 20Hz - 20kHz 0.1% THD 1000watts
(both channels driven) 1 KHz 1% THD 360 watts
8Ω 20Hz - 20kHz 0.1 % THD 210 watts
2Ω 1kHz 1% THD 500 watts

Frequency Response : 1Hz to 400kHz 0/-3dB

Noise: -104dB A-weighted, referenced to 350 watts into 4Ω

Voltage Gain : 17 (25dB)

DC Offset : Less than 50mV

Indicators : Power : Green LED
Clip : Orange LED
Protect : Red LED

Cooling : Continuously variable - speed fan

Amplifier protection: Full short circuit, ultrasonic, thermal, and RF protection. Stable into reactive and mis matched loads.

Load Protection : On/Off muting, DC fault with relay. Internal fault fuses.

Output Circuit Type : Complementary linear outputs, 2 step high efficiency circuit.

Power Requirements : 100, 115, 220 - 240 Vac, 50 - 60 Hz

Power Consumption : 1955 watts @ full power, sine wave output (1000watts)
@ 115V 17 Amps
@ 230V 8.5 Amps
@ 100V 20 Amps

Troubleshooting

SYMPTOM	POSSIBLE CAUSE	POSSSIBLE SOLUTION
NO LIGHTS	UNIT NOT PLUGGED IN	CONNECT POWER CORD TO AC OUTLET, CHECK AC OUTLET
	UNIT HAS FAILED	REFER TO SERVICE TECHNICIAN
POWER LED ON BUT FAULT LED ALSO ON	SHORTED SPEAKER CORD	REPLACE W/DIFFERENT CABLE
	SPEAKER IMPEDANCE TOO LOW	CHECK MANUAL FOR RECOMMENDED SPEAKER LOADS
	AMP HAS OVERHEATED	TURN AMP OFF, WAIT&TURN ON CHECK SPEAKER IMPEDANCES
	AMP HAS FAILED	REFER TO SERVICE TECHNICIAN
POWER LED ON BUT NO SOUND	TUNING MUTE ON	TURN TUNING MUTE OFF
	EFFECT IN LOOP TURNED OFF	TURN EFFECT ON
	VOLUME, BOOST,MASTERS OFF	TURN CONTROLS UP
	INSTRUMENT TURNED OFF	TURN INSTRUMENT VOLUME UP
	BAD GUITAR CABLE	REPLACE CABLE
	BAD BATTERY IN ACTIVE BASS	CHECK BATTERY
	COMPONENT FAILURE	REFER TO SERVICE TECHNICIAN
HUM AND/OR NOISE	PICKUPS TOO CLOSE TO AMP OR OR OTHER ELECTRICAL DEVICE	TRY MOVING,TURN OFF LIGHTS, OR OTHER ELECTRONIC DEVICES
	BAD GUITAR CABLE	REPLACE CABLE
	COMPONENT FAILURE	REFER TO SERVICE TECHNICIAN
DISTORTION	INPUT STAGE CLIPPING	PRESS-10Db SWITCH, TURN DOWN BASS
	PREAMP CLIPPING	TURN DOWN VOLUME, ADJUST EQ
	EFFECTS CLIPPING	TURN DOWN VOLUME, BOOST OR LEVELS ON EFFECTS
	POWER AMP CLIPPING	TURN DOWN VOLUME, BOOST OR MASTER VOLUME
	BAD BATTER IN ACTIVE BASS	CHECK BATTERY
	COMPONENT FAILURE	REFER TO SERVICE TECHNICIAN
ONLY HIGH END OR LOW END SOUND COMES OUT,OR LOUDNESS IS BELOW NORMAL	MODE SWITCHES NOT SET CORRECTLY	CHECK MANUAL FOR SETTINGS ON BIAMP & BRIDGE MODE SWITCHES
	EFFECTS NOT HOOKED UP CORRECTLY	CHECK MANUAL FOR USING EFFECTS
	WRONG SPEAKON CABLE	USE NORMAL SPEAKON CABLE, NOT BRIDGE MODE CABLE
HUM IN DIRECT OUT	GROUND LOOP	PRESS GROUND LIFT SWITCH
DISTORTION IN DIRECT	SIGNAL TOO "HOT"	TURN DOWN BAL.LEVEL CONTROL
TUNING MUTE AND/OR BOOST2 NOT WORKING	BAD CORD FOR RF2 FOOTSWITCH	REPLACE CORD
	RF2 DEFECTIVE	REFER TO SERVICE TECHNICIAN
	COMPONENT FAILURE	REFER TO SERVICE TECHNICIAN

GALLIEN-KRUEGER • 2240 PARAGON DR. • SAN JOSE, CA 95131
US: (408) 441-7970 • FAX (408) 441-8085
EUROPE: 41.42.234520 • FAX: 41.42.239525