

Randall ^{USA}®

A M P L I F I E R S



VALVE-DYNAMIC™
BASS AMPLIFICATION

RB300 / RB500 / RB750

Congratulations on the purchase of your new Valve-Dynamic™ Bass Amplifier and THANK YOU for the continued support of our product line!! We at Randall are committed to providing you the guitarist with cutting edge innovative designs as well as building our amplifiers to give years of consistent reliable performance. The innovative technology of Valve-Dynamic™ power, found exclusive in this Series of bass amplifiers takes hybrid tube & solid-state technology to new heights and your journey for great bass tone begins today.

Please carefully read the warnings below and the following manual pages before operating this Valve-Dynamic™ bass amplifier. Once you read this manual enjoy your new purchase!!

WARNINGS:

- *Do not block any ventilation openings on the front and rear panel of the amplifier*
- *Do not expose this or any amplifier to rain, moisture, dripping or splashing water.*
- *Do not place objects filled with liquids on or nearby the amplifier*
- *Do not expose this amplifier to direct sunlight or extremely high temperatures for an extended period of time.*
- *Always unplug the AC power cord before changing fuses or vacuum tubes.*
- *When replacing fuses, use on the same type and rating.*
- *Be sure to connect to an AC power supply that meets the power supply specification listed on the rear panel of the amplifiers.*
- *Do not use excessive force when handling control knobs, buttons or switches. Do not use solvents to clean the unit. Wipe unit off with soft cloth.*

IMPORTANT SAFEGUARDS

These warnings apply to all Randall Electronic Products. Please read and observe all warnings, labels and instructions contained in this service manual and those printed on your Randall product prior to its use.

WARNINGS AND SYMBOLS:



LIGHTNING FLASH: The lightning flash with an arrowhead within an equilateral triangle, is intended to alert the user of the presence of uninsulated **DANGEROUS VOLTAGE** within the product's enclosure that may be of significant magnitude to constitute risk of electric shock to persons.



PRECAUTIONARY WARNING:

RAIN AND MOISTURE: To reduce the risk of fire or electric shock, **DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.** Operators of electronic products should in no way be in contact with water.

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RB SERIES FRONT PANEL FEATURES



INPUT-10dB CUT:

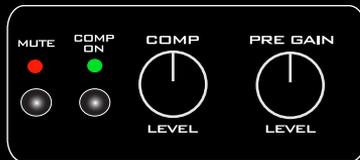
The main guitar INPUT for the amplifier. Using a high quality instrument cable, simply connect your guitar to this 1/4" input jack. The -10dB switch can be used with basses that use an on-board preamp with active tone controls. You can use the -10dB cut switch to prevent clipping at the first input stage when using active basses or passive basses with hotter pickups. You will not need to the -10dB cut when using basses with passive tone controls.

OVERDRIVE SECTION:

The footswitch able OVERDRIVE circuit can be used to add a little or insane amount of distortion to your bass tone. You can activate the Overdrive using the front panel switch or the included Foot controller. Use the LO CUT switch to remove sub low frequencies if the low end is too excessive. Now, adjust the Overdrive level to the desired distortion then use the LEVEL Control to adjust the volume level. Use the Overdrive and Pre Gain Level controls so that your Overdrive and Clean bass tones are similar volumes.

COMPRESSION|MUTE|PRE-GAIN CONTROLS:

Each RB Series amp is equipped with a footswitch able MUTE circuit for silent tuning. The Mute can be activated by using either the front panel button or included footswitch. The RB Series were also designed using "THAT" Compression chips, providing professional studio quality compression to your bass tone, simply press the "Comp On" switch to activate. The Compression control works in conjunction with the Pre-Gain level, so you will notice the Compression is more or less active depending on where the Pre-Gain level is set. If the Pre-Gain is lower the Compression level is lower, and as you increase the Pre Gain level you will also increase the Compression. The Pre-Gain level controls the gain level before the EQ section, so it can be used to add some grit or additional attack when set higher.



RB SERIES FRONT PANEL FEATURES - cont.



BASS CONTROL:

A passive low end control that adjusts the sub low frequencies of the preamp circuit. Set flat to start and adjust to find the desired amount of low end.

MIDDLE CONTROL:

A passive mid-range control that adjusts all mid-range frequencies of the preamp circuit. Set flat to start and adjust to find the desired amount of mid-range.

CONTOUR CONTROL:

A secondary mid-range control that works in tandem with the MIDDLE control allowing you to sweep between different mid-range frequencies. With the MIDDLE control set flat you will notice the Contour is extremely subtle, but as you adjust the MIDDLE control off of flat the Contour control will become much more active. A lower Contour setting pin points the lower mid-range frequencies that the MIDDLE control will then cut or boost. Set the Contour knob higher and the MIDDLE control will cut or boost the higher mid-range Frequencies.

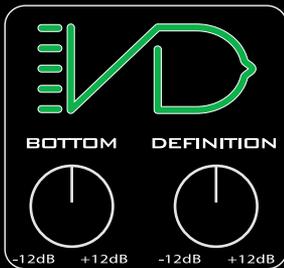
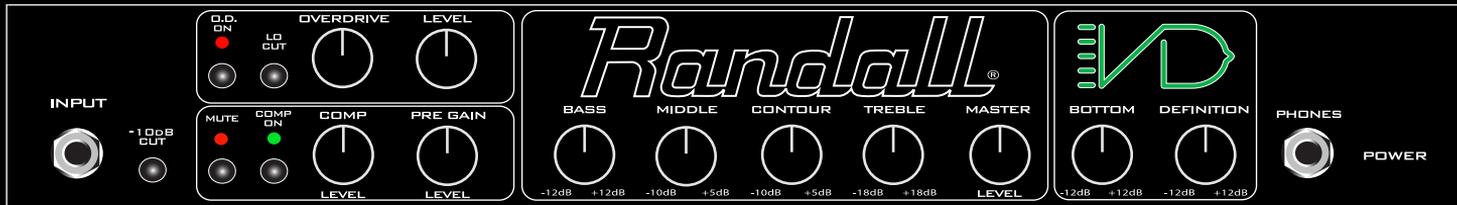
TREBLE CONTROL:

A passive high end control that adjusts the amount of high frequencies of the preamp circuit. Set flat to start and adjust to find the desired amount of high end..

MASTER LEVEL CONTROL:

The knob controls the overall volume and output of the amplifier. Use this control along with the Pre-Gain level control to achieve the desired volume level. Experiment with using different Pre-Gain and Master settings as you will notice some tonal differences by how you set and balance the Pre-Gain and Master controls.

RB SERIES FRONT PANEL FEATURES - cont.



VALVE-DYNAMIC BOTTOM/DENSITY CONTROLS

This is the very unique section of the RB Series bass amplifiers. Each RB Series amp includes an active Bottom and Density control which EQ's the power section for more low end tube warmth and high end shine. The tube driven MOSFET power section, includes a 12AT7 tube plus a built-in EQ for authentic all-tube tone and feel unlike any other tube, solid-state or hybrid power section. Adjust the Bottom control for additional tube warmth and punch, then adjust the Definition control for more top end tonal attack. Use this EQ in conjunction with the Preamp tone controls for unlimited tone shaping options.



PHONES JACK:

The filtered 1/4" Phones jack allow you to play or practice silently using a good quality pair of headphones.



POWER SWITCH:

This is the main power switch for the amplifier. Once the unit is plugged into an AC wall outlet or preferred power strip conditioner, use this toggle switch to turn the unit ON & OFF. It will take 4-5 seconds, like other all tube power amps, for the 12AT7 tube in the power amp to warm up and fully come on.

CAUTION: REPLACE ONLY WITH SAME TYPE FUSE WITH NEARBY FUSIBLE OR EXCHANGE BY NEARBY TYPE

110V/60Hz:1440W
230V/50Hz:1440W

100-120VAC - 12A SLO BLO
220-240VAC - 6A SLO BLO

Fuse

CE

SPEAKER OUTPUTS
 750WATTS@8 OHMS/810 WATTS@8 OHMS
 MINIMUM 2 OHM LOAD

FOOTSWITCH

DIRECT OUTPUTS
 PRE/ POST GRD LIFT
 LEVEL

EFFECTS LOOP
 RETURN SEND

TUNER
 OUTPUT

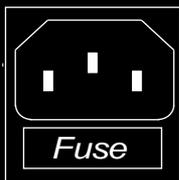
WARNING
 To Reduce the Risk of Fire or Electric Shock, DO NOT Expose This Unit to Rain or Moisture.

CAUTION
 RISK OF ELECTRIC SHOCK
 DANGER OF SHORT CIRCUIT
 ATTENTION
 RISQUE DE CHOC ELECTRIQUE, NE PAS OUVRIR

Model Number

Serial Number

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 DESIGNED AND ENGINEERED BY RANDALL USA



AC INLET:

Each unit includes an AC power cord for the country that you live in. Attach the included AC power cord from this AC inlet to a standard wall outlet or preferred power conditioner. Once plugged in, the unit is ready for power up. If the amp does not power up, please check the fuse located inside this AC inlet. It can be removed using a small flat head screwdriver. Please refer to the fuse rating above the AC inlet if you need to replace the fuse for any reason.



SPEAKER OUTPUTS:

Each RB Series amp is equipped with dual 1/4" and dual Speak-on Speaker outputs jacks. You can use a high quality 1/4" speaker cable or high quality speaker cable with locking Speak-on connectors and connect to one or two external speaker cabinets. Keep in mind the output of your this bass amplifier depends on the ohm rating of your cabinet/s. See the specification page for ohm ratings & power output.



FOOTSWITCH INPUT:

Each amp comes with a 2-button foot controller that activates the OVERDRIVE mode and turns the MUTE function On and Off for on-stage tuning purposes. Simply plug the 1/4" foot controller cable into the foot switch jack for remote switching of the OVERDRIVE and MUTE functions.

CAUTION: REPLACE ONLY WITH SAME TYPE FUSE
 (REMPLACER UN FUSIBLE DE MÊME TYPE)

110V/60Hz/12.20W
 230V/50Hz/14.40W

100V-120VAC - 12A SLO BLO
 220-240VAC - 6A SLO BLO

Fuse

SPEAKER OUTPUTS
 75W/4Ω @ 0dBMS/200W/8Ω @ 0dBMS
 MINIMUM 2 OHM LOAD

FOOTSWITCH

DIRECT OUTPUTS
 PRE/POST
 GRD LIFT
 LEVEL

EFFECTS LOOP
 RETURN SEND

TUNER
 OUTPUT

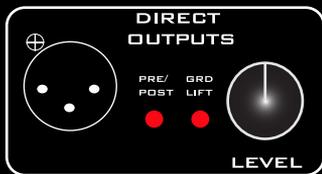
WARNING
 To Reduce the Risk of Fire or
 Electric Shock
 DO NOT Open This Unit to
 Risk of Malfunction

CAUTION
 RISK OF ELECTRIC SHOCK
 DO NOT OPEN
 ATTENTION
 RISQUE DE CHOC ÉLECTRIQUE, NE PAS OUVRI

Model Number

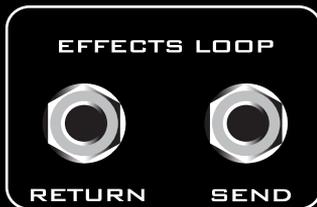
Serial Number

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 ELECTRONICS COMPONENTS ASSEMBLED IN CHINA
 DESIGNED AND ENGINEERED BY RANDALL USA



DIRECT OUTPUT:

A preamp output that allows you to send a balanced signal using an XLR cable to either a house mixing console for live stage use, or to a studio recording console. This section includes a Pre/Post loop option if you are using the Effect loop. The Ground Lift is if you should encounter a hum when connecting the XLR output to a live or studio mixing console. This should eliminate most ground loop type noise from the Direct out signal. If the Ground loop switch does not eliminate the hum then look at other units that may be causing a ground loop. Use the Level control to adjust the amount of direct signal output.



EFFECTS LOOP:

The Effects loop allows you to interface external effects or processing units via the Return and Send jacks. The Return is a patch point between the preamp and power amp section for returning a processed signal from any external processing gear. Using a 1/4" cable, connect from the Output of your external unit to this Effects Loop Return jack. The Send is the output of the preamp allowing you to send a signal to any effects unit or external processor. Using a 1/4" cable, connect the Input of your external effects unit to this Effects Loop Send jack



TUNER OUTPUT:

A preamp send allowing you to connect directly to any rack mount or standard tuner for silent tuning at any time. Using a 1/4" patch cable, connect this Tuner Output to the Input of your tuner.

TROUBLESHOOTING GUIDE

TUBE NOISE:

Because Valve-Dynamic is tube hybrid design, you may encounter some usual tube noise and/or microphonics over time. As with any tube amplifier we recommend that you carry a spare 12AT7 for this amp as the tube will need to be replaced. You can diagnose a tube related problem if the amp begins to make a crackling or microphonic type noise. If the amp has lower than normal output this can also be caused by a defective tube.

AMP DOES NOT POWER UP:

If the amplifier will not power up after you have plugged it into a known working power strip or wall outlet the first place to check is the main fuse located inside the AC Inlet on the rear panel. Remove the fuse from the fuse holder and replace the fuse using the same size and value of the existing fuse. If the amp still will not power up, contact your local Randall Dealer or Service Center. Find your local dealer on our website at www.randallamplifiers.com

SPECIFICATIONS

Below are the main specifications for each RB Series Bass amplifier with Valve-Dynamic power. For full power output please remember that you must use a single 4 ohm cabinet or two 8 ohm cabinets totaling 4 ohms.

RB750

750 Watts RMS @ 4 ohms
380 Watts RMS @ 8 ohms
175 Watts RMS @ 16 ohms

RB500

500 Watts RMS @ 4 ohms
270 Watts RMS @ 8 ohms
130 Watts RMS @ 16 ohms

RB300

300 Watts RMS @ 4 ohms
150 Watts RMS @ 8 ohms
80 Watts RMS @ 16 ohms

RANDALL WARRANTY

Randall guitar amplifiers, bass amplifiers and speaker enclosures are warranted to be free of defects in materials and workmanship in normal use for a period of three (3) years from the date of original purchase. The manufacturer warrants Jaguar speakers for a period of two years. The manufacturer warrants tubes for a period of sixty days. Rental stock is Warranted for one year from date of invoice to dealer. Warranty on rental units is not transferable. During that period, Randall will repair or replace, at Randall's option, any Randall product or part thereof which is found by Randall to be defective. The customer pays transportation to and from Randall factory service or any Randall Authorized Service Center. Randall reserves the right to use materials readily available at the time of the repair. Warranty service requires Proof of Purchase (sales receipt) to be presented at time of service request.

REGISTER YOUR WARRANTY ON-LINE AT www.randallamplifiers.com/about/warranty/randallreg.asp

Randall USA[®]

A M P L I F I E R S

Register your Warranty on-line at
www.randallamplifiers.com/about/warranty/randallreg.asp

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