



BTR 23

OWNER'S MANUAL

Dear Customer,

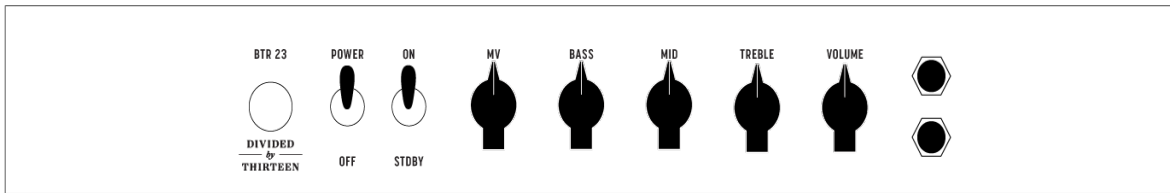
Thank you for choosing a **Divided By Thirteen** amplifier.

As a discerning guitarist, you understand that achieving exceptional tone starts with the finest components. Our classic design, paired with carefully selected parts and a hand-crafted approach, creates a truly versatile instrument that will enhance your sound. We encourage you to read through this manual, as it's designed to answer any questions you may have. Welcome to an exclusive group of musicians who have made **Divided By Thirteen** their amplifier of choice. We're excited to have you with us.

Important Safety Instructions

1. Read these instructions
2. Keep these instructions
3. Heed all warnings
4. Follow all instructions
5. Do not use this apparatus near water
6. Clean only with dry cloth
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions
8. Do not install near any heat sources such as radiators, heat registers, plugs, and the point where they exit from the apparatus
9. Protect the power cord from being walked on or pinched particularly at plugs and the point where they exit from the apparatus
10. Only use attachments/accessories specified by the manufacturer
11. Unplug this apparatus during lightning storms or when unused for long periods of time
12. 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 moisture, does not operate normally, or has been dropped
13. CAUTION: To disconnect the unit completely from the MAINS, unplug the unit. Turning the power switch off does not disconnect the unit completely from the MAINS.

Front Panel Functions



INPUT JACKS– These are the high-impedance inputs for the guitar. The top jack provides full level to the first tube stage without attenuation. The bottom jack is attenuated to prevent higher-output pickups or pedals from overdriving the input stage.

VOLUME (Pull Boost) – This knob controls the initial level being sent through the preamp. Turning it clockwise increases the volume and introduces overdrive at higher settings. When used with the MV knob, preamp overdrive can be achieved at lower listening levels. Maximum clean headroom is attained with high MV settings and lower VOLUME settings. Pulling the knob outward engages an additional boost circuit.

PULL BOOST – This function is activated by pulling the VOLUME knob outward, increasing the volume and causing preamp overdrive to occur sooner as the knob is turned clockwise.

TREBLE – This knob adjusts the high-frequency response. Lower settings produce a warmer, smoother tone, while turning it clockwise enhances high frequencies, making them more prominent.

MID – This knob adjusts the mid-range response. At lower settings, the mid frequencies are reduced, highlighting the treble and bass frequencies. As the knob is turned clockwise, the mid-range frequencies increase.

BASS – This knob adjusts the bass response. Lower settings reduce low frequencies, emphasizing mid and treble frequencies. Turning it clockwise increases bass frequencies.

MV (Master Volume) – This knob controls the overall level sent to the power tubes. Higher MV settings provide the most headroom before overdrive as the VOLUME knob is increased. Lower MV settings with higher VOLUME settings allow the preamp to be overdriven while keeping the volume at reasonable listening levels.

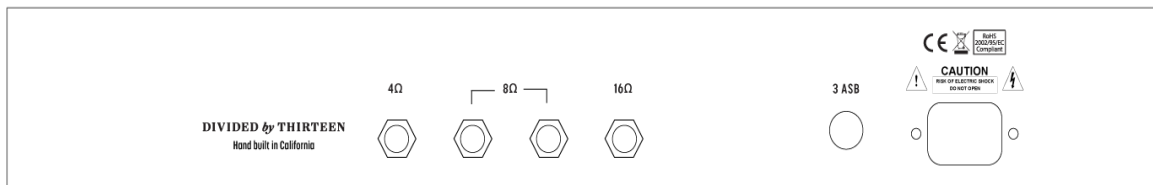
ON/ STDBY (Standby) – This switch prevents full voltage from reaching the power tubes and mutes the output. Set it to the “down/STDBY” position before turning the power switch to the “up/POWER” position. After waiting 20 seconds or more, place this switch to the “up/ON” position to play the amplifier. For breaks, use the “down/STDBY” position to mute the output while keeping the power tubes idle,

avoiding warm-up time when switched back to “up/ON.” To prolong tube life, power off the amplifier when not in use for long periods.

POWER/ OFF – This switch controls the amplifier’s power. When in the “down/OFF” position, the amplifier does not receive power, and the indicator lamp remains off. When in the “up/Power” position, the amplifier receives power, and the indicator lamp lights up. Note: this switch does not disconnect the unit from AC mains power.

INDICATOR LAMP – This lamp illuminates when the power switch is set to the “up/POWER” position, indicating the unit is receiving power. When the power switch is set to the “down/OFF” position, the amplifier is not receiving power, and the indicator lamp will not be illuminated. Note: this does not indicate the amplifier is disconnected from the AC mains power.

Rear Panel Functions



A/C Input - Connects the amplifier to A/C power via the power cable supplied. Unless otherwise specified, your amplifier is designed to operate on 120 volts A/C, 60 cycles, ONLY.

Mains Fuse – 3AG Type 250 Volt, SLO-BLO 3 Amp

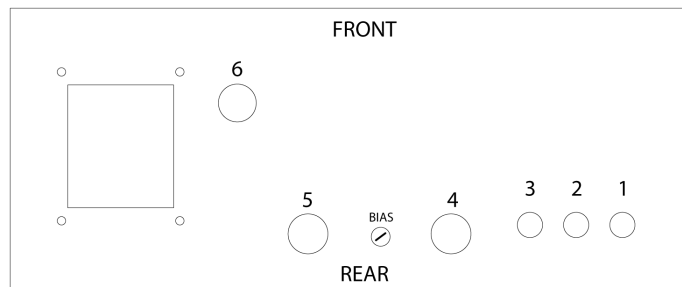
*****High Voltage Fuse** – Units produced prior to March 2025 feature an additional 3AG Type 250 Volt, SLO-BLO ½ amp fuse***

Speaker Output Jacks - There are 4 speaker output jacks; (1) 16 ohm. (2) 8 ohm, (1) 4 ohm. Be sure to match the impedance of your cabinets with the impedance (output) of the amplifier. Only one output should be used at any point except the (2) jacks labeled 8 ohm. These jacks are wired in parallel to allow a single 8 ohm cabinet or (2) 16 ohm cabinets to be connected. *****NEVER OPERATE YOUR AMPLIFIER WITHOUT A PROPER SPEAKER LOAD CONNECTED. *****

TUBE COMPLEMENT

Each production tube is tested and matched to our exacting specifications. When the time comes that the power tubes need replacing, it's very important to use high quality, matched sets of power tubes. It's also critical that the bias of the amp be reset after installing new, or NOS power tubes.

V1- Preamp 12AX7
V2- Preamp 12AX7
V3- Preamp 12AX7
V4- Output KT88
V5- Output KT88
V6- 5AR4/GZ34



Bias Procedure using TAD BiasMaster or similar device. Refer to your devices owner's manual for detailed instructions:

1. With the amp turned off, remove output tubes from amp (Caution, they may be hot!!!)
2. Place the TAD BiasMaster octal probes into the free sockets, making sure the "guide pin" on the base lines up correctly in the socket. Remember: one probe in each socket.
3. Insert the power tubes into the probes.
4. Connect the cables of the octal probes with the TAD BiasMaster
5. Turn the amp on and leave on Standby for approximately 5 min. to allow tubes to warm up properly.
6. Set the Standby switch to the up/ON position.
7. The measurement is started by turning the control knob from the "off" position to the desired tube socket.
8. Adjust the bias to **76ma** using the adjustment point located on the bottom of the amp chassis.
9. After finishing the procedure, switch the amp off, let the tubes cool down and remove the probes from the tube sockets. Remove the power tubes from the probes and place them in the tube sockets, being careful to note the position of the tube guide pins are correctly aligned with the socket.

*****Do not set bias higher than recommended level as it can lead to tube failure and possible damage to other components in the amplifier!***

**WARNING! No user serviceable parts inside! Refer to qualified service person only.
LINE CORD- For your safety, connect to grounded A/C receptacle only.**

We know your new **Divided By Thirteen** amplifier will provide many hours of enjoyment and inspiration in the years to come. This manual is a resource for some of your questions. Please contact us with any other questions or comments that you may have. We look forward to hearing from you!

Divided By 13 Amplifiers

619 MARTIN AVENUE, SUITE 6

ROHNERT PARK, CA 94928

707-584-8663

www.dividedby13.com

SERIAL NUMBER: _____