

FRIEDMAN

AMPLIFICATION



JEL-20

INSTRUCTION MANUAL

Jake E. Lee ranks high on the shortlist of influential gunslinger guitarists that emerged as the heroes of a new generation in the early '80s. Best known for the burning guitar work and innovative songwriting, Lee contributed to two of Ozzy Osbourne's most revered albums, 1983's *Bark at the Moon* and 1986's *Ultimate Sin*.

With Ozzy, his post-Ozzy band, Badlands and most recently, with his own group, Red Dragon Cartel, Lee's playing embraced the athleticism of the '80s while remaining firmly rooted in the hard rock fundamentals of the '70s. Jake's tonal choices provide the evolutionary glue between the sonics of those two great eras.

Following the massively successful release of the limited edition JEL-100 signature head, Jake E Lee and Dave Friedman have again combined their legendary ears and talents to create the new JEL-20, a signature amplifier that offers Lee's ultimate tones in a compact 20-watt package. The JEL-20 is a two channel, EL-84 powered all-tube fire breather. In Lee's own words, "this amp puts the two specific tones I use to create my sound in one head: The sweetness and warmth of a classic Plexi and the more aggressive slant of the master volume amps of the '80s -- all tweaked to my taste. Dave has an innate understanding of where I'm coming from as a player and we're alike in the way we hear tones. Dave doesn't hear things as a technician, he hears things like a musician, and that made him really easy to work with. I grew up in the '70s and those muscular, articulate rock tones were the tones I always sought, but I made a name for myself in the '80s when you needed a little more aggression and a little more scream. I've always tried to retain a little of that '70s heart and I still do, and that's what this amp does - though it's got plenty more on tap if you need it!"

The JEL-20 features an internal load and cab-simulated XLR output. Comparing this analog circuit to some of the most intricate computer-based IRs, Dave achieved a direct output you can proudly send to front of house or use in the studio. The JEL-20 also allows you to play "silently," meaning you can safely play the amp WITHOUT having a speaker cabinet connected. The XLR output includes a ground-lift, level, and center/edge of speaker cone simulation switches.

The JEL-20 was specifically designed to take pedals well especially boosts, ODs, phasers, flangers, tremolos, and wahs. The ultra-transparent buffered, series effects loop takes time-based effects pedals and rack units equally well. This is the exact same FX loop Friedman uses on all its amplifiers including the legendary BE-100. The head cabinet features beautiful red tolex, white piping and solid Baltic Birch construction.

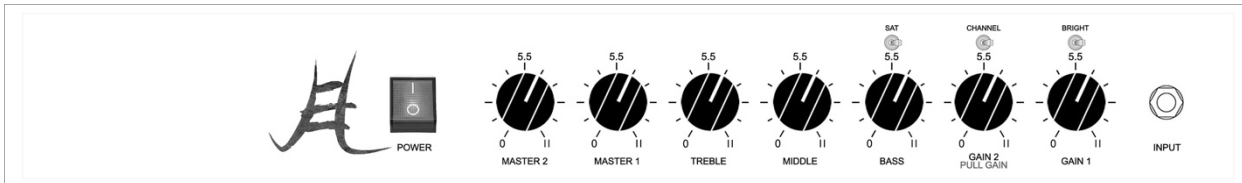
SPECIFICATIONS

- 20-Watt all-tube head
- Two channels
- Assembled in the USA
- Custom made transformers
- 2 x EL84 power tubes
- 3 x 12AX7 preamp tubes
- JEL channel - Gain, Master, Bass, Middle, Treble
- Push-Pull Hi/Lo Gain switch (JEL Channel only)
- Plexi channel - Gain, Volume, Shared EQ and Bright Switch
- Global Presence Control
- Ultra-transparent series effects loop
- XLR Cab Simulated output with Ground Lift, Axis and Level switches. You can record without having your speaker connected.
- Sat Switch primarily designed to add gain, compression & saturation
- Single button foot switch for channel selections
- 8 and 16 ohm Impedance selector switch
- Limited 5 Year Warranty
- Dimensions: 8.5" (D) x 18" (W) x 8.25" (H)
- Weight: 22 lbs

We know you will love your new JEL-20. If you have any questions or help don't hesitate to email us at friedmanamps@gmail.com.

INSTRUCTIONS

Please keep this instruction manual for future reference and for the duration of owning this Friedman Amplifier. Please carefully read and understand the instructions inside this user's manual before attempting to operate your new amp. This instruction manual includes essential safety information regarding the use and maintenance of the amplifier. Take special care to heed all warning symbols and signs inside this manual and those printed on the amplifier itself.



POWER SWITCH: Turn this ON to power up your new JEL-20.

SAT SWITCH: Primarily designed to add gain, compression & saturation. It is normal for the volume level to drop with this switch engaged. Compensate with the amps' master volume. (Works on both channels)

CHANNEL SELECTOR SWITCH: Switches between Clean and Dirty channels when Footswitch is not connected.

BRIGHT SWITCH: 3 position switch that varies the overall brightness of the Plexi Channel.

MASTER-2 CONTROL: This the JEL Drive channel VOLUME.

MASTER-1 CONTROL: This the JEL Plexi channel VOLUME.

TREBLE CONTROL: This adds or takes away treble. Start at 5 and adjust to taste.

MIDDLE CONTROL: Adds or takes away midrange. Start at 4 or 5, lower settings will scoop the mids, higher levels will allow your audience to actually hear the guitar in the mix.

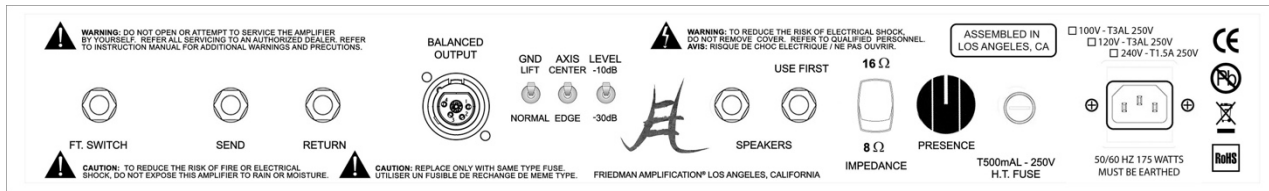
BASS CONTROL: This adds or takes away bass or bottom end. As the amp gets louder you may want to back this off a bit. Start at 7-10 for bedroom volumes.

GAIN-2 CONTROL: This adds gain/distortion for the JEL Drive channel. Adjust to taste. Don't be afraid.

PULL GAIN SWITCH: A lower gain 800-esque sound to a higher gain boosted tone on the JEL drive channel.

GAIN-1 CONTROL: This adds gain/distortion for the JEL Plexi channel.

INPUT: Just like it says, this is the Guitar Input Jack.



FOOTSWITCH JACK: This is where you plug in the footswitch.

SEND JACK: This is where you plug the INPUT of your Effect(s). Use a high quality shielded guitar cable.

RETURN JACK: This is where you plug the OUT of your Effect(s). Use a high quality shielded guitar cable.

BALANCED OUT: XLR output used to send your JEL-20 tone straight to the mixing board. For silent recording ability, have no speaker cable plugged in to the USE FIRST speaker jack.

SPEAKER OUT JACKS (2): Plug speaker cabinets here. Set Impedance selector to appropriate position.

IMPEDANCE SELECTOR: Select between 16 or 8 Ohm to match your speaker set-up.

PRESENCE CONTROL: Adjusts the upper mids and highs in the power amp section. This is global on all channels. Start at about 4-5 and adjust to taste. ****Note:** THIS POT WILL BE SCRATCHY—THIS IS NORMAL

HT FUSE: Only replace with Type indicated on rear panel. If this fuse blows, it's most likely a bad power tube.

MAINS INPUT: Plug the supplied IEC power cord here.

MAIN FUSE: This fuse is in the compartment found below the AC receptacle. Replace only with type indicated on rear panel. This is also most likely the result of a bad tube. Constant blowing of this fuse (even when using new tubes) is an indication that something could be seriously wrong with your amp. STOP and call us so we may help you diagnose.



WARNING!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE AMPLIFIER TO WATER OR MOISTURE. DO NOT OPERATE NEAR ANY WATER SOURCE



WHAT'S THE MEANING OF THIS?

The lightning flash with an arrow triangular symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the products enclosure, and may be of sufficient magnitude to constitute a risk of electric shock



WHAT'S THE MEANING OF THIS?

The exclamation point triangular symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the user manual accompanying this amplifier!

1. Read Instructions – All the safety and operating instructions should be read before this product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the amplifier and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The amplifier should not be used near water.
6. Heat – Amplifier should be situated away from heat sources such as radiators, heat registers.
7. Power Sources – This product should be operated only from the type of power source indicated on the rating label.

If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

8. Grounding or Polarization

– This product may be equipped with a polarized alternation-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

9. Power-Cord Protection

– Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord in correspondence of plugs, convenience receptacles, and the point where they exit from the amplifier.

10. Cleaning – The amplifier should be cleaned only as recommended by the manufacturer.

11. Object and Liquid Entry

– Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

12. Damage Requiring Service

– The amplifier should be serviced by qualified service personnel when:

- A. The power-supply cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has been spilled into the amplifier; or
- C. The amplifier has been exposed to rain; or
- D. The amplifier does not appear to operate normally or exhibits a marked change in performance; or
- E. The amplifier has been dropped, or the enclosure damaged.
- F. The amplifier needs tube replacement or biasing.

13. Servicing – The user should not attempt any service to the amplifier beyond that described in the operating instructions.

All other servicing should be referred to qualified service personnel.

14. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered.

15. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

FRIEDMAN LIMITED 5-YEAR WARRANTY

Thank you for choosing Friedman. Friedman manufactures some of the world's most reliable hand-wired, all-tube amplifiers and speaker cabinets. Friedman takes great pride in an extremely thorough testing procedure, which is implemented on each product prior to shipment. In the unlikely event that you have a problem with your amplifier, please refer to warranty below. Friedman stands behind our products like no other and we're here to help you!

AMPLIFIERS: Friedman offers a limited 5-year warranty to the original purchaser that a Friedman amplifier will be free from defects in material and workmanship. A dated sales receipt will establish coverage under this warranty, PLEASE KEEP YOUR PROOF OF PURCHASE TO USE YOUR WARRANTY.

This warranty does not cover service or parts to repair damage caused by accident, neglect, abuse, normal wear, disaster, misuse, abuse, over-powering, negligence, inadequate packing or shipping procedures and service, repair or any modifications to the product which have not been authorized or approved by Friedman in writing.

ANY MODIFICATION TO THE AMPLIFIER WILL VOID YOUR WARRANTY. If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement by Friedman as provided below.

CAUTION: Do NOT attempt to repair, modify or service your amplifier by yourself!!! Please read the instruction manual for all safety notifications, warnings and instructions. Friedman, like all tube amplifiers, has extremely high voltages that can cause serious injury or death. Do not remove the chassis from the amplifier. All repair and service

16. FUSES – Always use the correct rating and type of fuse as indicated on the rear panel. Note the proper rating fuse is determined by the AC line voltage in the country this unit is being operated.

work must be performed by Friedman or an authorized service center of Friedman. ANY UNAUTHORIZED REPAIRS WILL VOID YOUR WARRANTY.

TUBES: Friedman warrants the original purchaser. that the specific tubes used in Friedman will be free from defects in material and workmanship for a period of 90 days from the original date of purchase. A dated sales receipt will establish coverage under this warranty. This tube warranty will automatically terminate 90 days after the original retail sales date. This tube warranty is in lieu of all other expressed warranties. If tubes fail within the 90-day warranty period your sole remedy shall be replacement of tubes as provided below.

RETURN PROCEDURES: In the unlikely event that a defect occurs please email us at friedmanamps@gmail.com. In most cases we can help you diagnose the problem. If a product must be sent to us, please follow the procedure outlined below.

- Defective products must be shipped, together with proof of purchase, freight pre-paid and insured to the Authorized Friedman Service Center or directly to Friedman.
- If a product must be returned to Friedman for warranty replacement/repair, a Return Authorization Number must be obtained from our Customer Service Department prior to shipping the product.
- Please contact Friedman Customer Service Department for the Authorized Friedman Service Center nearest you.
- Products must be shipped in their original packaging or its equivalent; in any case, the risk of loss or damage in transit is to be

borne by the purchaser.

- The Return Authorization Number must appear in large print directly below the shipping address.
- Always include a brief description of the defect, along with your correct return address and telephone number.
- When calling to inquire about a returned product, always refer to the Return Authorization Number.

If Friedman determines that the unit was defective in materials or workmanship at any time during the warranty period, Friedman has the option of repairing or replacing the product at no additional charge, except as set forth below.

- All replaced parts become a property of Friedman. Products replaced or repaired under this warranty will be returned via ground shipping within the United States or Canada - freight prepaid.
- Friedman is not responsible for costs associated with expedited shipping, either to Friedman or the return of the product to the customer.

All warranty repairs outside the United States and Canada must be directed to the dealer or distributor from which you purchased the product.

INCIDENTAL OR CONSEQUENTIAL DAMAGE: In no event will Friedman be liable for any incidental or consequential damages arising out of the use or inability to use of any Friedman product, even if a Friedman dealer has been advised of the possibility of such damages, or any other claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which may vary from state to state.

FOR YOUR PROTECTION: Please complete and send in the completed warranty registration card to: Friedman Amplification, care of Boutique Amps Distribution, 5300 Harbor Street, Commerce, CA 90040. Please send within (10) ten days of the date of purchase so that we may contact you directly in the event a safety notification issued in accordance with the 1972 Consumer Product Safety Act.

CUSTOMER SUPPORT: Our dedicated and friendly staff is ready to help you with any warranty or product questions you may have. Please email us at friedmanamps@gmail.com.

Thank you again for choosing Friedman and we look forward to a long relationship!



A M P L I F I C A T I O N

www.FriedmanAmplification.com