

FRIEDMAN

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

ww20

HEAD & 1x12 COMBO

INSTRUCTION MANUAL

Congratulations on purchasing this incredible new guitar amplifier designed by one of the most well-known amp modders and designers in the LA Music scene for the past 20 years, Dave Friedman.

Dave Friedman has been designing and building guitar rigs for the stars since the early nineties. After many years of modding amplifiers and consulting for other well-known amplifier companies, Dave finally brought his talent to a new line of production amps under his name, Friedman Amplification.

A lot of people don't believe an EL-84 20-watt amp can sound just like the big one. We beg to differ!

You will notice instantly, the tight bottom end and rich harmonically detailed chords and single notes. This amp cleans up remarkably well with the guitar's volume control, even with the amp on higher gain settings.

The WW20 takes pedals very well and loves boosts, OD's, phasers, flangers, tremolos, wahs, etc. The WW20 also has an ultra transparent Series FX loop that takes time-based FX pedals and rack units equally well.

SPEAKER EMALUTED DIRECT INTERFACE:

On the back panel you will find an XLR output that delivers an authentic MICed cab response. This output accurately reproduces the tone of a classic MIC and vintage speaker.

KEY FEATURES:

- Assembled in USA
- 20-Watt all tube head or 1x12 combo
- The WW20 combo comes loaded with a 16-ohm, 12" Celestion G12M 65 Creamback speaker
- Two channels
- 2 x EL-84 power tubes
- 3 x 12AX7 preamp tubes
- Master volume and gain controls
- Dirty Channel featuring full EQ consisting of bass, middle, treble and presence
- Clean channel featuring volume and 3-way bright switch
- Saturation Switch for higher gain/saturated sound.
- Fat Switch for thicker tone
- Gain Cut Switch to lower the gain structure of the amp
- Voice Switch to contour the high-end response of the amp
- Ultra transparent series FX Loop
- 8 and 16 ohm Impedance Selector Switch
- Custom made transformers
- 5-Year Limited warranty

PLUGGING IN

We recommend starting the amp on the normal dirty channel with the Bass on 10, the Mids at around 6, the Treble at 5 and the Presence at 5. Set the Gain around 8 and then bring the master up to taste. After plugging in, you will notice instantly, the tight bottom end and rich harmonically detailed chords and single notes, that's the Friedman sound. This amp cleans up remarkably well with the guitar's volume control even with the amp on higher gain settings. For even more gain, pull the Sat Switch out on the front panel, and/or experiment with ALL the knobs to create your custom sound. Switching to the Clean, turn the Volume up and experiment with the Bright Switch to find your sweet spot.

We know you will love your new JJ JR. If you have any questions or need 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.



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. 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 – for example, a bathtub, washbowl, kitchen sink, laundry tub, wet basement, or near a swimming pool, and the like.
6. Heat – Amplifier should be situated away from heat sources such as radiators, heat registers, stoves, or other amplifiers that produce heat.
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. Clean by wiping with a cloth slightly damp with water. Avoid getting water inside the amplifier.

11. Non-use Periods – The power cord of the amplifier should be unplugged from the outlet when left unused for a long period of time.

12. Object and Liquid Entry

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

13. 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

14. 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.

15. 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.

16. Attachments – do not use attachments not recommended by the product manufacturer as they may cause hazards.

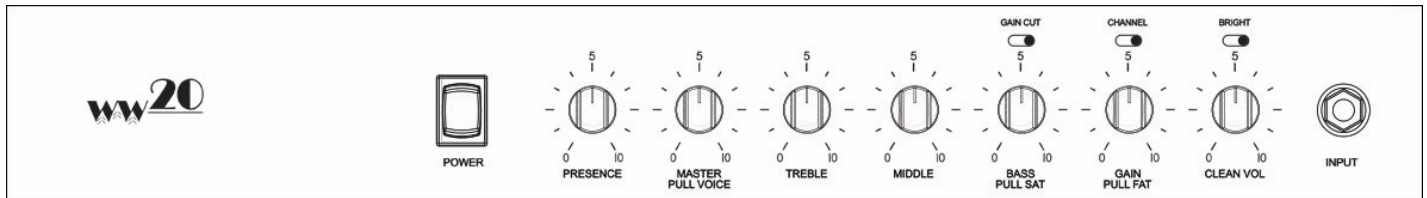
17. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product.

18. Lightning – For added protection for this product before a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power line surges.

19. 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.

20. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

21. 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.



POWER SWITCH: This turns the amp on.

PRESENCE CONTROL: Adjusts the upper mids and highs in the power amp section. Global on all channels. Start at about 4-5 and adjust to taste.

Note: This pot will sound scratchy when adjusted – this is normal.

MASTER: This is the dirty channels VOLUME. The more you turn it up, the louder it gets. Try the Pull-Switch for a darker voicing.

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

MIDDLE CONTROL: Adds or reduces midrange. Start at 5 or 6. 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 reduces 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. A secondary feature is a 'Pull' bass control knob for more saturation. Primarily designed to add gain, compression and saturation. It is normal for the volume level to drop with this switch engaged. Compensate with the amp's Master volume.

GAIN CONTROL: This adds gain/distortion. Adjust to taste. Don't be afraid. A secondary feature is a 'Pull-knob' function to fatten your tone.

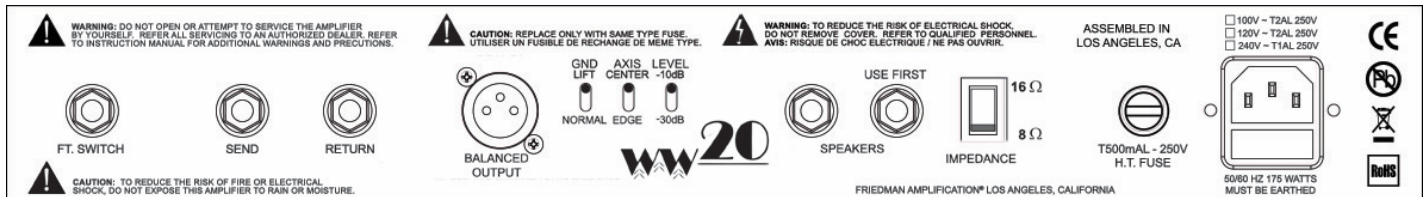
GAIN CUT SWITCH: Lowers gain structure of the dirty channels.

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 Clean Channel ONLY.

CLEAN VOLUME: Adjusts the clean channel's volume.

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 OUTPUT: XLR output used to send your WW20 tone straight to the mixing board. (No speaker cab necessary if you want silent recording ability.)

GND SWITCH: Lift ground to prevent ground loops. Start with placing in LIFT position.

AXIS SWITCH: Simulates MIC placement on the center of the speaker or the edge/surround.

LEVEL SWITCH: A level pad for the XLR output

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

If using only one cabinet, connect to “USE FIRST” jack.

The WW20 has a built-in dummy load in case you want to use the XLR output without having a speaker connected. If you would like to use this option, make sure there are no cables plugged into either speaker jack.

IMPEDANCE SELECTOR SWITCH: Set to correct speaker load impedance that is connected to your amp.

MAINS INPUT: Plug the supplied IEC power cord here and into a wall outlet to power the beast. Only plug into a wall outlet that matches the voltage of the amp.

MAIN FUSE: This fuse is in the compartment found below the AC receptacle. Replace with a 3 Amp slo blow fuse for 120V or 1.5 Amp slo blow for 230V. This most likely is 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.

HT FUSE: Only replace with Type indicated on rear panel. If this fuse blows, don’t freak out too much. It’s most likely a bad power tube. We recommend you carry a few spare fuses and a spare set of tubes when gigging.

FRIEDMAN LIMITED LIFETIME 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 lifetime 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 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 over the phone. 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, 3383 Gage Ave., Huntington Park, CA 90255. 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!



www.FriedmanAmplification.com