

# EARTHQUAKE 2.2

Hand Crafted Tube Guitar Amplifier

## Vintage Vacuum Tube Amplifiers



2580 B Old Washington Rd.

Waldorf, MD 20601

301-396-4100

[www.vvtamps.com](http://www.vvtamps.com)

### Important Information:

1. Please read all of the information contained in this document
2. Searching for tone? The Earthquake 2.2 is loosely based on the venerable Fender Tweed amplifiers of the late 1950's. The intent of this amp is to provide the singing qualities of the 5E3 Deluxe along with the additional headroom of the Blackface Deluxe Reverb. To achieve this goal, the Earthquake 2.2 uses a heavy duty power transformer that provides the perfect voltage requirements for the 6V6 output tubes. The output transformer is selected to handle additional power and provide the great tone associated with output tube distortion.
3. Like the vintage amps, the Earthquake 2.2's are made the old fashioned way. The circuit board is hand crafted using 1/8" Forbon and eyelets. They are hand wired with vintage style cloth covered wire and have quality name brand components loaded on a steel chassis. Coupling and tone capacitors are Mallory 150's, and in some cases, New Old Stock (NOS). JJ Multi-section or Sprague Atom caps are used for filtering and bypass. The amp is loaded with the respected JJ 6V6S to handle the higher plate voltage. Preamp tubes are selected for tone.
4. HUM - Some hum or amplified noise is normal. As the volume is increased some amplified noise may be noticeable and will be more apparent in a small quiet room. Additionally, tubes have inherent noise as do resistors. However, excessive hum (noise) can be caused by electronic devices located near the amp or on the same circuit such as neon signs, fridges, fluorescent lights, computers, light dimmers, aquarium pumps, etc. Hum can vary with different outlets, rooms or buildings.
5. Do not operate this amp without a speaker load.

The Deluxe® and Deluxe Reverb® models are trade names of Fender Musical Instrument Corp. Vintage Vacuum Tube Amps is in no way affiliated with Fender Musical Instrument Corp.

# CAUTION

## RISK OF ELECTRIC SHOCK

**WARNING:** This guitar amplifier contains lethal HIGH VOLTAGE. To avoid risk of injury or death from electric shock, do not open the enclosure or remove the back cover from the amplifier. Refer all service work to qualified personnel.

**WARNING:** This amplifier contains Vacuum Tubes. Vacuum tubes are heated to produce electrical currents and they get HOT. Touching this surface could result in bodily injury. To reduce the risk of injury from a hot component, allow the surface to cool before touching. DO NOT touch or attempt to remove vacuum tubes until they have had time to cool.

IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

WATER AND MOISTURE: This amplifier should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

POWER SOURCES: The amplifier should only be connected to a 120VAC household power source.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization is not defeated. Do not remove the ground from the power cord.

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 cords at plugs, convenience receptacles, and the point where they exit from the amplifier.

SERVICING: You should not attempt to service this amp beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FUSING: Your amplifier is equipped with two marked fuse receptacles, replace only with the same type fuse.

## **MAINTAINING YOUR AMPLIFIER**

1. Conductive foreign objects could produce a short circuit that could cause fire, electric shock, or damage to your amplifier. Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped from time to time with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all electronic equipment, avoid prolonged use in caustic environments (salt air). If used in such an environment, be sure the amplifier is adequately protected.

2. Your amp was designed for an 8 Ohm speaker load. The speaker load is reflected back to the primary of the output transformer and output tubes. Contrary to myth, it will not harm this amp to operate it with a 4 Ohm or 16 Ohm load. DO NOT operate this amp without a speaker load or with a shorted speaker cable. A high quality speaker cable should be used. Do not use a guitar cable for a speaker cable. Failure to follow these instructions could seriously damage your amp and will void any warranty.

3. The vacuum tubes in your amplifier are not solid state devices. They do, and will wear out over time. The life expectancy of the tubes depends on the amount of time you use your amplifier. If you replace your tubes they should be replaced with the same type as originally installed. New Old Stock (NOS) 6V6 output tubes are not recommended because they are not designed to handle the high voltage in VVT Amps. If the power output tubes are replaced it is recommended that they be replaced in matched pairs and that the tubes be biased for the proper operating current. Failure to properly bias the output tubes could result in early failure of the new tubes or worse. VVT Amps will install and set the bias on tubes you purchase from any source. VVT amps only offers warranty on tubes originally installed in the amplifier.

4. The tolex fabric covering your amplifier cabinet should be cleaned periodically with a soft damp cloth. Make sure that the amp is turned off and unplugged before cleaning the cabinet. Do NOT use spray cleaners as overspray may cause corrosion of the faceplate, chassis, or electrical components. Avoid prolonged exposure to sunlight. Do not allow the amplifier to get wet. Don't set your drink on it either. Use care when moving or storing the amp; the tolex could rip or tear. Accidental damage to the cabinet or tolex is not covered by your warranty.

## USING YOUR AMPLIFIER

1. POWER Switch: In the ON position Applies 120VAC to the power transformer. In the OFF position removes 120VAC from the power transformer.
2. STANDBY Switch: In the OFF position, the STANDBY Switch allows voltage to the tube filaments but stops high DC voltages to the tubes. When you turn the amp on, allow the tubes to warm up 10 or 15 seconds before placing the STANDBY switch in the ON position. The amp will not operate unless the STANDBY switch is in the ON position.
3. INPUT Jack: Guitar/Instrument input.
4. VOLUME Control: Controls the loudness of the guitar or instruments plugged into the INPUT Jack..
5. MASTER VOLUME Control: Controls the signal level to the power amplifier.
6. BOOST Switch: In the UP position boosts Mid and Treble frequencies.
7. TONE SELECT Switch: Changes the characteristic of the tone stack. Which position is what? We don't know. We just couldn't think of anything else to call it.
8. TONE Controls: Treble, Middle, Bass.

### IF YOUR AMPLIFIER WILL NOT TURN ON

Check the power to the unit. Check for tripped household circuit breakers, unplugged extension cords or power-strip switches that may be turned off. Check the fuse(s). If a dark brownish color or no wire can be seen within the glass fuse, then replace the fuse with the same rating as originally installed. Over fusing the amplifier with a fuse of a higher current rating, or shorting the fuse with aluminum foil etc. could be disastrous and will void your warranty. The unit may be perfectly fine but occasionally the fuse may blow because of high AC voltage surges. After the fuse has been replaced with the proper value and, if the fuse fails again, the amplifier will require servicing . Also, check your input and speaker output cables.

VVT Amps wants you to be happy with your amp so, if there are certain tonal characteristics that you desire, we will assist you in those endeavors and make every effort to help you get your mojo. There are many options for capacitors, transformers, and speakers available at prices ranging from modest to outrageous. All of these components affect the tone of your amplifier. Let us know if we can help.

The amplifier is only 1/3 of the equation. A good guitar with good pickups is 1/3. The most important part is your hands. PRACTICE, PRACTICE, PRACTICE.

## **About Vintage Vacuum Tube Amplifiers**

Vintage Vacuum Tube (VVT) Amps is a small endeavor to make vintage style tube guitar amplifiers available to those musicians who want and like the sound. The VVT Amps workshop is located at:

Vintage Vacuum Tube Amplifiers  
2580B Old Washington Rd.  
Waldorf, MD 20601  
(301) 396-4100

All VVT amps are built by hand using either hand made eyelet or turret boards. We also make cabinets and chassis for our custom amps. We use various sources for vintage reproduction cabinets and chassis that we believe offer the best durability, value, and style.

## **VVT Amps also offers repairs and modifications for most tube amplifiers and Vintage Fender™ and Marshall™ Amp Restoration**

Typical turnaround time is 1 – 2 weeks. Exceptions and Emergencies considered for gigging musicians. VVT purchases new tubes and transformers from many sources and shops for the best prices. All of our work is guaranteed. VVT will replace defective tubes that we install for 6 months. All other electronic parts are guaranteed for 1 year from the date of installation. No warranty is implied or given on parts that you supply. New cabinet hardware, baffle re-grilling, vintage style speakers, custom modifications, and amp voicing are available. VVT will discuss various tube, transformer, speaker options, costs, and expected tone results on an individual basis before restoring your amp. VVT Amps has over 30 years experience on vacuum tube equipment.

## **VVT Amps does not service solid state equipment of any brand.**

For an appointment or to discuss your needs contact our shop: 301-396-4100

or

Jim Hill - 410-474-0598 (cell)

or

Tony Albany – 301-659-3356 (cell)

Email: [vvtamps@vvtamps.com](mailto:vvtamps@vvtamps.com)

One the Web: [www.vvtamps.com](http://www.vvtamps.com)

## **LIMITED WARRANTY**

All Vintage Vacuum Tube Amplifiers (VVT Amps) are guaranteed against failure. Vacuum tubes are guaranteed for 90 DAYS from the date of purchase. If a tube fails within the 90 day period, VVT Amps will replace the tube at no charge. Speakers are guaranteed for ONE YEAR. All other components are guaranteed for FIVE YEARS. VVT Amps will service your amplifier and supply all parts at no charge providing the unit is under warranty. Any shipping costs associated with repairs are your responsibility. VVT Amps DOES NOT PAY FOR PARTS OR SERVICE OTHER THAN OUR OWN. A COPY OF THE ORIGINAL SALES RECEIPT IS REQUIRED TO VERIFY YOUR WARRANTY. VVT Amps assumes no responsibility for external speakers or other equipment damaged by this guitar amplifier. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. Accidental damage to the amplifier, cabinet, or Tolex is not covered. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for VVT Amps any liability in connection with the sale or servicing of VVT Amp products. VVT Amps SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. If service is required you may contact VVT Amps at 301-396-4100 or vvtamps@vvtamps.com. VVT Amps will respond as soon as possible and make arrangements to repair your amplifier. If your unit is out of warranty, VVT Amps will repair your amplifier but you will be charged the current RATE for parts and labor.

## Specifications:

Model Name	Earthquake 2.2
Product Number	909991022
Model Number	122721-0022
Series	Standard
Type	All Tube Amp
Audio Output	22 Watts into 8 ohms
Output Impedance	8 ohms
Speakers	N/A
Channels	Single Channel
Features	100% Handmade Amplifier,
Controls	Front Panel: Input, Volume, Master Volume, etc.  Back Panel: Fuse – 2A Slo-Blo Power Switch Standby Switch 8 Ohm Speaker Jack
Covering	Textured Vinyl
Weight	18 lbs.
Dimensions	Height: 8" Width: 14" Depth: 8"
Tube Complement	2 X JJ 6V6S Output Tubes 3 X JJ ECC83S/12AX7 Preamp/Phase Inverter
Accessories	Cover p/n EQ220001
Options	N/A
Introduced	4/2006
Notice	Product Prices, Features and Specifications Are Subject To Change Without Notice