

TECHNICAL SPECIFICATIONS

Dimensions	110x55x35mm
Weight	200gr (without battery)
Chassis	Die-cast aluminum
Input impedance	1.3 M Ω
Output impedance	220 Ω on each output
Minimum load impedance with attenuation < 0.5dB	5 k Ω on each output
Maximum output level	2.5Vpeak
Signal switching	True bypass
Power supply/ Power consumption	9Vdc/approx. 90mW (I-max assorbed: 10mA @ 9Vcc)
Power connection/ground	Negative tip/negative ground
Battery type	+9V (6LF22)



*Finest musical gear
handmade in Italy*



www.tefivintagelab.it

JOE BUFFER Operating Manual

Tefi Vintage Lab is pleased to welcome you to our family. We hope you enjoy using our new Buffer&Splitter Joe Buffer. Feel free to get in touch for any suggestions or clarifications as to how you might best use the effect. Play music and enjoy using our products!

Joe Buffer - Buffer & Splitter

No footswitch and a minimal circuit for maximum sonic transparency. Joe Buffer is a class-A discrete component buffer; it uses J-Fet and BJT semiconductors and features two outputs for signal splitting operations. It can be placed anywhere in the effects chain, according to needs:

- **At the beginning of the effect chain**, to prevent degradation in to prevent degradation in the signal path caused by long connection cables between the guitar and effects chain effects or amplifier.
- **At the end of the chain** or before amps and effects with low input

impedance, such as vintage effects like the Binson Echorec (the input impedance of a Binson Echorec is 47k Ω , the correct loading impedance of a guitar or passive bass is generally more than 500k Ω), or in many vintage amplifiers. Joe Buffer is essential in direct recording of the instrument; use it before audio interfaces or mixing consoles (generally 10k Ω standard line input impedance) to prevent signal loss and frequency cut. Thanks to its high input impedance and wideband response, Joe Buffer eliminates any attenuation or degradation of the guitar's harmonic contents caused by mismatched impedance adapting.

- **As a signal splitter**, to drive without signal quality loss two amplifiers/effects chain at the same time, or to connect a guitar tuner not equipped with True Bypass signal switching.

CONNECTION AND USE

- **Connecting to instrument and amplifier/gear:** connect your instrument (or gear effects chain) to the Input jack on the pedal's right side with a 6.3mm Jack instrument cable. Connect the output jack on the pedal's left side to an amplifier (or to the next effects in your chain) with a 6.3mm Jack instrument cable.
- **Battery:** to access the battery compartment, remove the four screws on the bottom cover. Connect the 9V battery (6LF22 type) to the battery clip connector. Do not reverse the polarity! Insert the battery into the compartment located in the bottom area of the enclosure. Be careful not to damage the wires and/or the battery clip. To preserve battery life disconnect the instrument cable from the pedal Input jack when the pedal is not in use.
- **Power supply:** connect a 9V stabilized external power supply adapter to the pedal's power connector located on the right side (5.5mm connector with 2.1mm pole type). Do not reverse polarity! (external positive, internal negative). In the presence of reversed polarity the pedal will not power up; no damage will be caused below 25V reversed polarity.

CONTROLS AND FUNCTIONS

The Buffer is an essential element that should be present in every guitar effects chain. Its function is to “decouple” and “follow” the guitar signal, without introducing any level of amplification, making the signal source (instrument) independent of any following elements. To achieve this in the best way, Joe Buffer has a very high input impedance (1.3Mohm) and a very low output impedance (220ohm), with the ability to drive low-load impedance (down to 5kohm) without distortion or signal loss. High-input impedance leaves the original harmonic content of the instrument unaltered. Low output impedance, in conjunction with high-capability drive, allows a “push-in” of the signal spectrum in at the following stage, regardless of input characteristics. Without using a buffer, pedalboards with numerous effects and long instrument cables will suffer from signal drops and degradation in harmonic content may occur. Joe Buffer is designed for maximum sonic transparency; it will not introduce any undesired harmonics and allows the original sound of the instrument to shine through, avoiding harmonic and level losses due to long cable parasitic capacitance or impedance mismatching between effect pedals.

Curiosity: The grandpas Joe Buffer and Gegè Fuzz don't get along very well; Fuzz pedals work on the direct interaction between a guitar's pickups and the non-linear low input impedance that is typical of the Fuzz effect. Placing Joe Buffer between a guitar and a germanium Fuzz will change this impedance interaction causing a “normal”, common acid distortion. This is because the input of Gegè Fuzz will “recognize” the low output impedance of Joe Buffer and not the mid/variable-frequency impedance of the guitar's pickup.

TEFI Vintage Lab invites you to activate the warranty within 10 days of the purchase of the product. It is necessary to connect to our website www.tefivintage.com and, on the page concerning your product, fill in the required fields in the “register product” section. TEFI Vintage Lab products are covered by 5-year warranty. If the user finds an anomaly due to component defects and erroneous assembly, please contact us by sending an email to info@tefivintage.com, describing in detail the problem encountered and the circumstances in which it was verified.

In compliance with the regulations defined in the following clauses, TEFI Vintage Lab undertakes to restore the instrument with no additional costs.

1. Warranty is valid for 5 years. Does not include parts subject to wear such as jacks, switches, potentiometers, dip-switches, 9V battery clip or 9V battery holder, nor does include aesthetic parts such as knobs.
2. Warranty does not extend to damages caused by inexperience or negligence in the use of the effect, pedal, or bad/neglected maintenance.
3. TEFI Vintage Lab undertakes to replace at its own discretion the malfunctioning or incorrect manufacturing parts, only after a careful check and verification of bad construction.
4. In case of incorrect use of the warranty, shipping costs are charged to the user.
5. During the warranty period, the replaced products become property of the manufacturer.
6. This warranty can only be obtained from the original purchaser who has complied to the normal maintenance instructions contained on this manual. Our warranty liability expires at the moment the original owner surrenders ownership of the product, or changes are being made to it.
7. Warranty does not include damage caused by excessive stress, such as the use of the product after the detection of an anomaly, the use of inappropriate methods of operation, as well as the failure to observe use and maintenance instructions.
8. The manufacturer assumes no responsibility for any difficulties that may arise in resale or use abroad due to the provisions in force in the country where the product was sold.
9. The product part of the defective one must be delivered to TEFI Vintage Lab for replacement, otherwise the replaced part will be charged to the buyer.
10. Any product repair or modification by the user or by companies not authorized by TEFI Vintage Lab will invalidate the warranty.

EU DIRECTIVE AND DISPOSAL

TEFI Vintage Lab products are designed compliant to the standards defined by EU directives, respecting safety and the environment. Pursuant to Legislative Decree No. 49 of March 14, 2004 “Implementation of Directive 2012/19/EU on waste electrical and electronic equipment (RAEE)”.

The crossed-bin symbol indicates that the product, at the end of its useful life, must be separately collected from other waste.

The user must therefore confer the equipment with the essential components at the end of their life to the appropriate collection centers for electrical and electronic waste.

