Subject: Re: Fender Bassman 10
Posted by Thermionic on Sat, 06 May 2006 02:33:33 GMT
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Hi Frank,Antique Electronic Supply (www.tubesandmore.com) and (www.tubetoneamps.com) are good sources for replacement Fender faceplates. Both carry replacement chassis and cabinet hardware, as do Hoffman Amplifiers (www.hoffmanamps.com), Mojo (www.mojomusicalsupply.com), and Ampwares (www.ampwares.com). All are good companies to do business with, and offer fast, high quality service, especially Hoffman and AES. I'm a longtime satisfied customer of both. Having said that, I don't know if anyone has Silverface faceplates. You may have to put a Blackface front panel on it.IMHO, replacing all the electrolytic caps is an absolute necessity, including the cathode bypass caps on the board, the filter caps in the can on the chassis, and the bias supply cap on the bias supply board. That alone will greatly improve the amp's sound, not to mention it's reliability. It's also a very good idea to replace all the rectifier diodes with modern types as well, both in the main supply and the bias supply. Replacing all the plate load resistors might be a good idea too, and will greatly lower the noise floor of the amplifier.The bias pot in your amplifier does not adjust the bias voltage, but rather the bias *balance.* It's used to individually adjust the current draw of the two 6L6GCs so that the push pull effect is at it's most balanced point. The actual bias voltage is set by a fixed resistor before the bias pot and one connected from the wiper to ground. Together, they form a voltage divider that sets the exact negative voltage. The way I adjust the bias on amps like this is to unwire the cathodes from ground, and temporarily solder in a precision 1 ohm resistor. I first measure it's value, and then measure the voltage across the resistor and calculate the cathode current by Ohm's Law. Then, you change the fixed resistor to obtain the desired voltage. Biasing to somewhere around 70% of design maximum plate dissipation is usually about right. Crossover notch biasing with an oscilloscope is probably the single most inaccurate and unreliable method in existence. The cathode resistor method is IMO accurate enough, even though the cathode current also includes the screen grid current, so you must allow a few mA for it. S.E.D. St. Petersburg and JJ are both good 6L6GCs. Although Silverfaces do sound very nice indeed, if you're wanting a *sweeter* sound you might consider "Blackfacing" it back to the AB165 circuit. But, it'll go into horrid sounding grid blocking distortion between the open low E and about the 5th fret at around 8 on the volume, depending on the guitar. CBS added more headroom in both the preamp and phase inverter sections of the Silverface designs, to get more clean volume from them. It was also done to stop the grid blocking distortion, which was due to the Blackface's driver circuitry being inadequate (too low current, too high impedance) to drive the 6L6GCs at full throttle. The Silverface circuit fixed this, but it did cost some of the Blackface's "brown sugar mojo." If you play at lower volumes than around 8, retrofitting it back to the AB165 circuit might be for you.Thermionic