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Fender Champ 600 re-issue with MasterTone Modifications

Thank you for purchasing a MasterTone modified Champ amplifier - I hope you will be delighted with the tone and performance of your new amp.

Please read this in conjunction with the Fender Manual and observe all the safety notices - remember that there are dangerous voltages inside valve amplifiers.

Why modify the Champ 600?

The Fender Champ 600 is a great single ended class A amp even in standard form. It uses one 12AX7 and one 6V6 tube that gives it the potential for a rich warm tone. And, it looks great.

But, at 5 watts, it's too loud for many people to be able to benefit from the rich natural overdrive that you get when you crank it up. A Master Volume can provide break up at lower volumes.

It also has rather a lot of mains hum that needs to be addressed and the tone is greatly improved by changing various capacitors and resistors for different values and/or better quality.

About the modifications

The internet is full of modification ideas for Champ 600 amplifiers but many of the modifications contradict each other and don't always work well together when combined into one amp. I have chosen what I believe to be a successful combination of changes and additions which allow the amp to reach its full potential and provide a wide range of tones.

What the modifications do



AA764/5E1 switch

The stock Champ 600 has a fixed tone stack (tone control) set to emulate the AA764 circuit. The 5E1 Champ circuit does not have a tone stack. Switching to the 5E1 circuit gives a lot more gain and changes the tone.

Negative Feedback (NFB) switch

The stock Champ 600 has a Negative Feedback circuit which is designed to reduce distortion and allow a clean sound at higher volume. Switching the NFB circuit out opens up the sound.

Volume

After my modifications this becomes the pre-amp volume control (also called "Gain" on many amplifiers). This controls how hard you drive the pre-amp valves. Turning this control up overdrives the pre amp and creates a harmonically rich distortion.

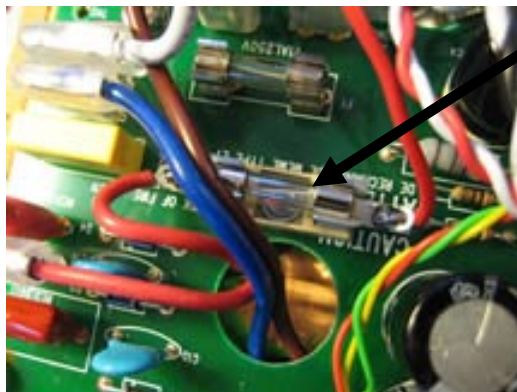
Master Volume

This controls the drive of the output stage of the amplifier. This allows the user to turn up the Volume control for pre-amp gain whilst keeping the amp's overall loudness at a desired level.

HT- Fuse

This additional fuse, fitted next to the mains fuse, protects the high voltage windings and protects the expensive power supply transformer from damage if the power tube or a power supply capacitor fails.

The fuse is a 100mA 250V slow-blow fuse 20mm x 5mm - Maplin Part number GL35Q)



HT fuse

Other 'unseen' modifications

- Components are changed for better quality and/or different values.
- Voltages are corrected.
- Valve heater supply converted to DC.
- Bigger power supply smoothing capacitors are fitted to reduce hum.
- Output Transformer re-located away from Mains Transformer to reduce hum.

Warranty

I will correct any fault with my workmanship or the parts I fit for 12 months from the date of sale. Warranty applies only to the original purchaser. Warranty is void if the amplifier is altered or modified in any way or the serial number has been tampered with or altered.

Contact

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