

Fender Super 60 Mods

Stock, these amps don't have enough gain and are bass heavy on the clean channel. Also, the overdrive is harsh (bright) until mid gain, whence it seems to clean up but only to become very edgy afterwards.

This series of amps, having an inverted PCB, makes life very difficult to do testing/design easily. With this in mind, here is the quick and easy way mods for the above issues can be made without loosening or taking the PCB out.

Clean channel:-

First, the B+ supply needs to be raised on the input tubes. This can be done by bridging R167 with 100k ½W. This put the plate supply to about 320v and do wonders.

Next, to cleanup/and increase the gain on the clean channel. All gain stages are active in this amp at all times and the clean/gain switching is done by loading and switching controlled by LDR's, so to increase the clean channel, look at the input load switched in in clean mode and notice that LDR OP1 loads the input to V101A through R4/C1 in series with R19. R4/C1 give the clean channel more emphasis on bass (high pass to ground) and R19 does most of the level attenuation. The bass can be adjusted out adequately with the control pot, so advise leave R4/C1 alone unless the owner really does have an issue with it. R19 does need addressing. The schematic shows this resistor as 1.2k and the fitted value is 220Ω! Fitting 1.2k will give the amp more usable clean gain, but 2.7k is much better. R19 can be found by locating the LDR (OP2) under the clean volume control, trace from pin 5 directly to R19. Simply desolder it and let it drop from the PCB, fit the 2.7k (or 1.2k) on the top side.

Overdrive channel:-

Remove C104 (0.68μF, V101a cathode bypass capacitor). This will match the frequency more of the clean channel to the drive channel, drive will have a touch less gain and is cleaner. The amp will now behave much more like one with Clean and Boost channels - a lot more controllable and more matched for volume.

By removing C3 (750pF, bypass capacitor on the gain control), the gain control will be much more usable and less bright in the first half of rotation.

