The Tube Amp Doctor
Worms, Germany

Suggested Assembly for Tweed One-5

1. Unpack all material und check for completeness.
2. Start equipping the board: at first the resistors (0.5W), power resistors, condensers and electronic capacitors.
3. Establish cable links underneath the board.
4. Establish cable links with wires of appropriate length to other parts according to layout.
5. Insert, align and mark board. Drill marked board and isolation board with 3.5mm.
6. Drill hole on the side of chassis (Transformer side) for the white wire clamp used later
7. Mount transformer and Terminal Solder Lock washer Lugs with HR 3121 screw nuts.
8. Mount tube sockets. (Octal: HR3130/HR3131, Noval: HR3140/HR3141)
9. Connect transformer according to attached wiring schemes.
10. Mount lamp holder and fuse carrier.
11. Mount pots (break off nibs of orientation) with internal lock washers (HR9260).
12. Mount input jacks with internal lock washers (HR9260).
13. Mount loudspeaker jack with internal lock washer (HR9260).
14. Insert rubber grommets (2x 10mm for isolation of transformer, 1x 15mm for power cord)
15. Mount output transformer with HR 3120 / HR 3121
16. Install power cord. Don´t shorten ground wire (green/yellow)
17. Apply the 2x100 ohms resistors from pilot light to ground (symmetric heating).
18. Wire amplifier according to enclosed wiring scheme. Green is for filament, Yellow everything else.
19. Take the cabinet, remove the back panels and turn cabinet on top.
20. Slide in chassis to center and mark drill holes on the inside of the cab. You can use one back panel for correct placing towards the backside.
21. Drill marked boreholes with 5.5mm from inside. Use a piece of wood at the outside.
22. Solder the cables to the speaker. (CB3120/CB3125)
23. Mount the loudspeaker.
24. Mount the chassis to the cabinet.
25. Mount white wire clamp to the power cord at the side of the cabinet (HR3040/HR9100).
26. Insert tubes.
27. Functioning test: visual check: wiring correct? Have you connected every earth point? Do the electrolytic capacitors have the correct polarity? Are the tube sockets correctly wired? Grounding safe and correct? Is the isolation of cables undamaged?
28. Electronic functioning test with multimeter (Ω): do all earth points have connection to chassis, do all points carrying high voltage have no shorts to ground?
29. Without variac: turn Volume up to max. Plug in power cord: red pilot light should turn on immediately, high-voltage (measured at the first electronic capacitor is 0V) should rise up to about 450V in 5-15 seconds and then slowly sink down to about 340V. The voltage at the cathode of the power tube (Pin 8) should slowly rise to circa 19V. Now, the amp should make a steady hiss. If not, switch off the device immediately (!!!) and go back to point 28. Conduct functioning test again thoroughly.
30. Attach the self-adhesive aluminum foil to the back panel and screw on the back panel.
31. DONE!