Turning an MLA-2500B into a GS-35B HF RF Deck

by WB8WJU

The remote Power supply is 0-5000 VDC @ 2 AMP, CCS. Running at 3500VDC no load, it pulls down to 300VDC under full load. Plate current is 600-700 mA and grid current runs about 200 mA with 100 watts drive. Idle grid current is 100 mA with a single 50 volt, 50 watt zener for bias. This PA is capable of between 1700-1900W output on most bands, using the stock MLA-2500B tank circuit. Input is untuned, as a properly tuned GS-35B presents an input impedance which "looks" enough like 50 ohms to please any transceiver/driver!

MLA-2500 with original tubes removed, power supply removed, and GS-35 socket installed in former power supply compartment.

As above, side view, also with additional bracing for GS-35 socket installed.

As above, view from front.

Bottom view, showing blower and holes in former power supply chassis taped over with packing tape to insure all air will pass through the GS-35 cooling radiator.

Top view showing tape on TOP of power supply chassis floor as well. The GS-35 socket enclosure has been installed, and wiring of control interface has begun in rear left corner of tank circuit compartment.

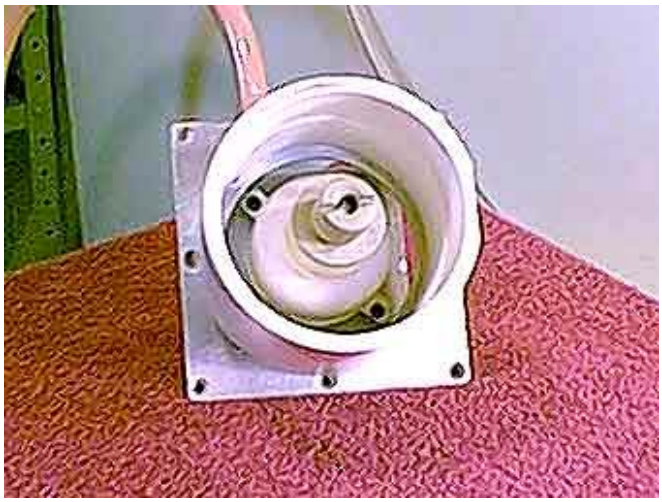
As above, with additional cabling and T/R relay circuitry added.

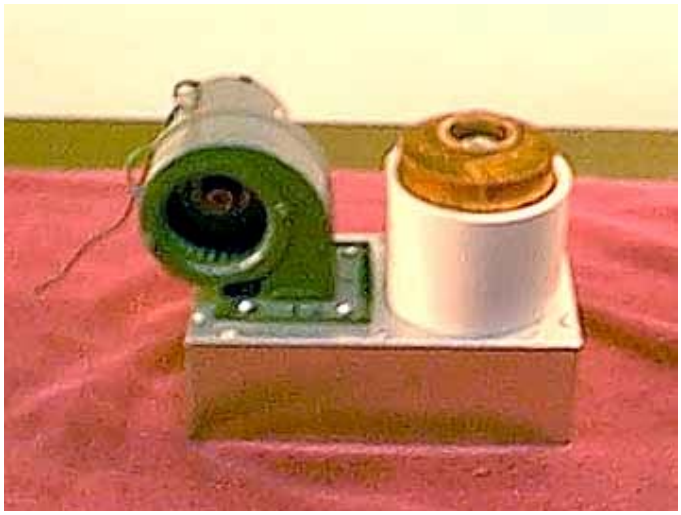
As above, showing more cabling added in tube / metering compartment.
The big black cables are actually split flexible cable sheathing.

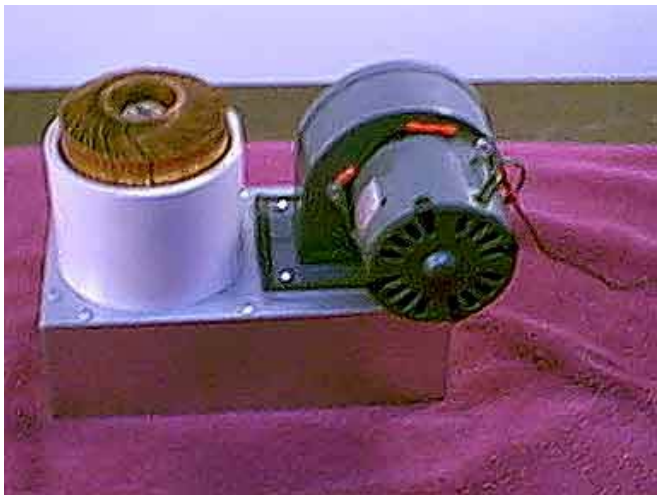
MLA-2500 with meter switches removed and meter swapped out; 1.5A for plate current, 1.0A for grid current - probably could use 0.5A for the grid. Note nifty name plate to cover holes left when switches were removed.

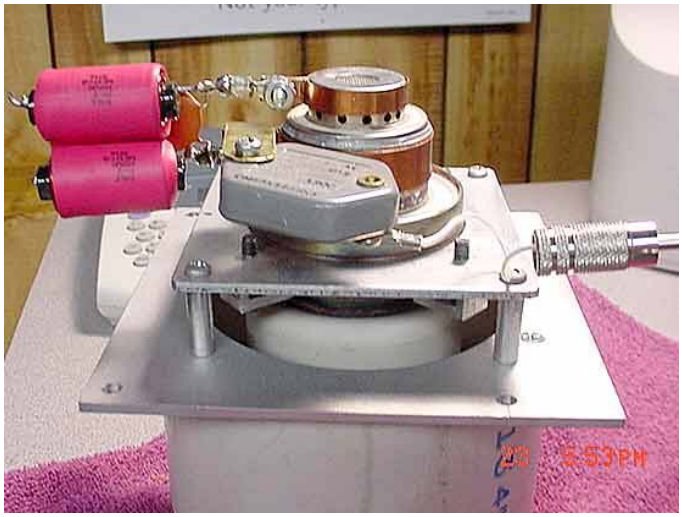
MLA-2500 GS-35B RF deck in-line. The power supply is under the table. Belden 40 KV HV cable and millen HV conecters are used for HV connections.

GS-35B Socket made by WB8WJU







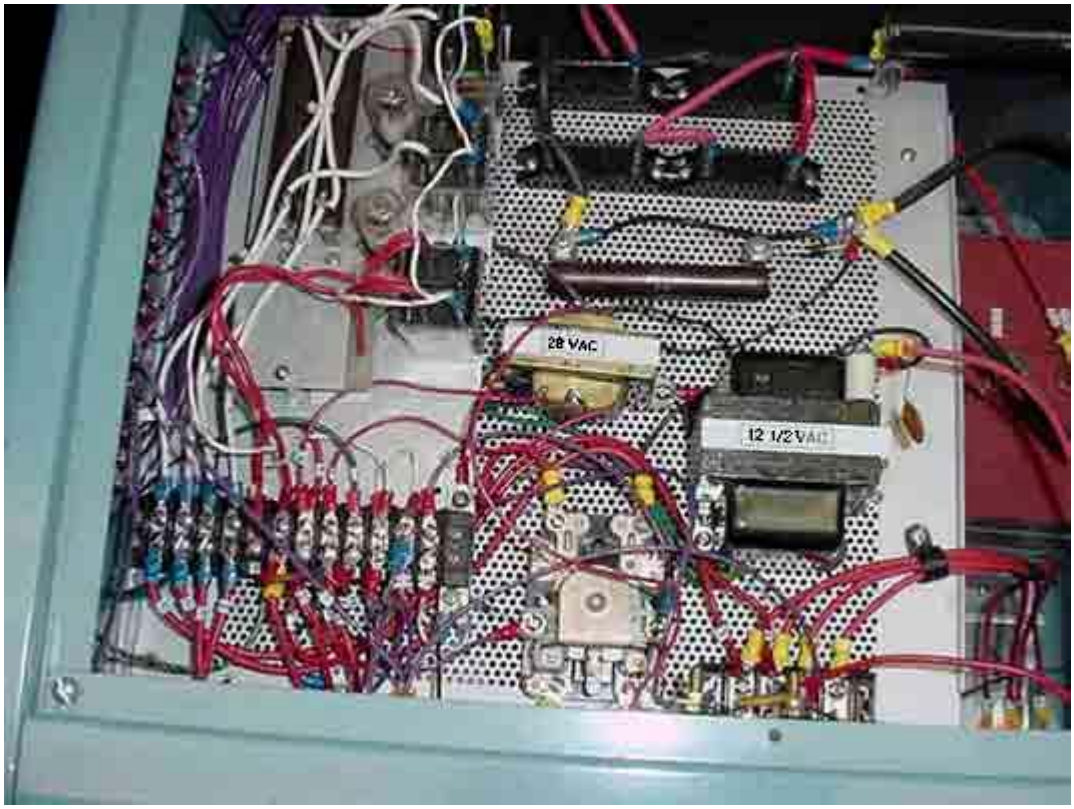


GS-35B Power Supply by WB8WJU

Front view of the remote power supply suitable for GS-35B PAs. The meter is Simpson 0-5000 VDC.

Power supply cabinet at beginning of construction. This shows (1) the plate transformer, with a 240V primary and 3500V, 2A CCS secondary, (2) the "volume control" 0-280V, 25A Variac, and (3) the Russian 40uF, 5 KV filter Capacitor.

Close-up of the "volume control" in place.



Top view of the power supply showing a whole BUNCH of stuff, like the four HV-14-1 HV Modules (K2AW), the 30-sec vacuum time delay relays for high and low voltage in-rush protection, the 12 and 28 volt low voltage transformers, etc., etc.!!

Back view of the cabinet showing the millen HV and control connectors.

All mods made by: Tom Adams WB8WJU
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http://www.nd2x.net/WB8WJU.html