

VERSATILE POWER-CONTROL BOX

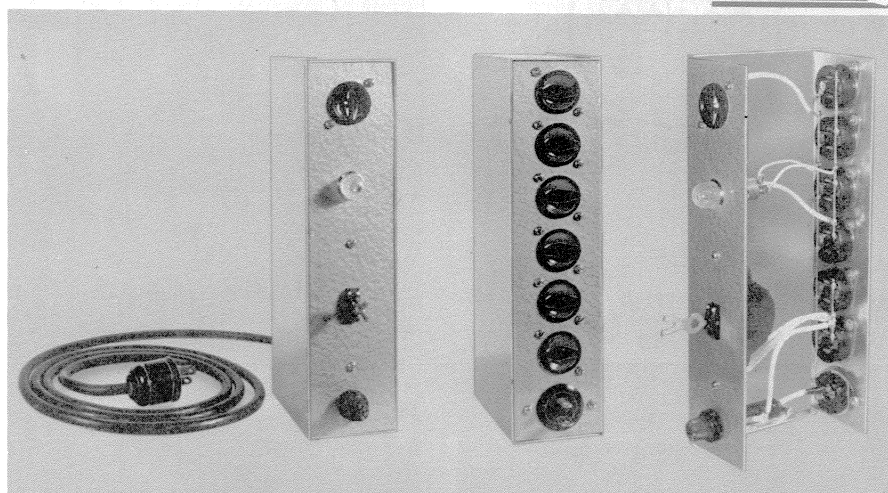
By Philip E. Hatfield, W9GFS

Few amateur stations today have equipment permanently wired to power lines through disconnect switches; rather, the trend toward tabletop units with simple power cord connections has sometimes brought about a tangle of extension cords and cube taps, necessary to connect a receiver, moderate power transmitter, and accessory equipment to the power line.

A useful accessory to lessen the power-line haywire may be easily constructed in the form of an AC outlet box — shown in the accompanying illustrations. The mechanical design can be tailored to fit individual installations. The box shown in use at W9GFS was intended for mounting on the side of a desk. A different layout would permit other mounting positions.

THE SCHEMATIC DIAGRAM, Fig. 1, shows the outlets split into groups: (1) those that remain on as long as the box is plugged in, intended for a desk lamp and clock; and (2) those controlled by a main switch (S_1) and intended for the receiver, transmitter, and accessories. A fuse is included in the circuit for all of the outlets.

The input plug and all of the outlets but one are mounted on the rear of the box, since constant accessibility



POWER CONTROL BOX constructed by W9GFS, showing (left to right) front, rear and inside views. Note tinned copper wire connections between outlet receptacles.

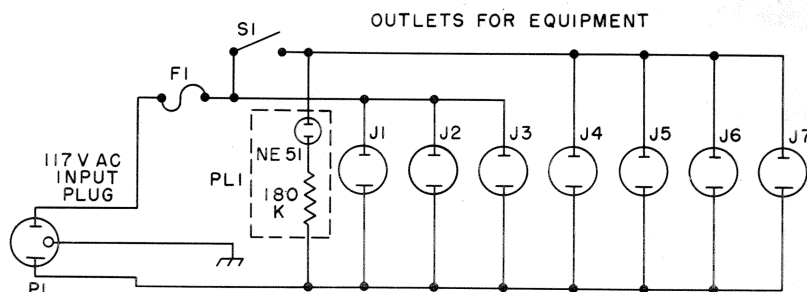
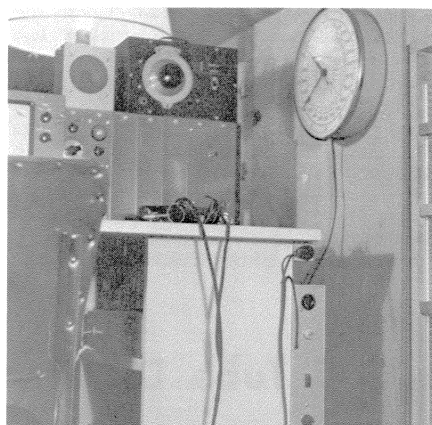


FIG. 1. SCHEMATIC DIAGRAM of the power control box. Wiring should be run with No. 14 or No. 12 wire. The three outlets at left (J_1 , J_2 , and J_3) have power on them continuously. Polarized receptacles and plugs may be used if available.

TABLE I — PARTS LIST — POWER CONTROL BOX

F_1Fuse holder for 3AG fuse, and fuse rated at 5 or 10 amperes, depending on load drawn from box.
 J_1 to J_72-prong female power receptacles for chassis mounting (Amphenol 61-MIP-61F)
 P_12-prong male power connector for chassis mounting (Amphenol 61-MIP-1)

PL_1Panel lamp assembly with dropping resistor for NE-51 Neon lamp.
 S_1Lock type flush tumbler switch (Bryant 5861-L, or equivalent).
 Box.....LMB No. 144 box chassis 10 x 4 x 2 1/2 inches.



INSTALLATION of power control box at W9GFS fastened to the side of operating console.

ity is not necessary. One outlet in the group not controlled by the switch is mounted on the front to allow ready accessibility for a soldering gun. The neon lamp on the front of the box indicates when the switched group of outlets are on.

The switch allows all station units to be turned on or off without the use of the switches on the individual units. The switch on the model shown requires a key to turn it on;

this prevents children from energizing the equipment. A conventional wall-switch which has the same dimensions may be substituted.

All of the outlets used are of the polarized type, and care should be taken in connecting the plugs on the attachment cord to preserve the polarity relationship. If the box will be used within reach of a ground, a 3-wire safety type plug should be used to ground the box.

This control box usually will handle transmitters rated at up to 200 watts input. Higher power transmitters, especially those in the kilowatt class, should be powered from a separate circuit. However, all station equipment except a large transmitter can be controlled by the power control box.

Devote one or two evenings to eliminating your line cord haywire by constructing this handy box.