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For further information, check number 38 on page 126.

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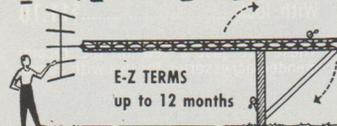
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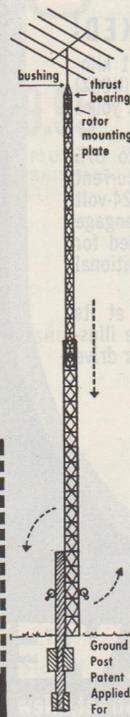
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E-Z WAY TOWERS, INC.

P. O. BOX 5491 - TAMPA, FLA.

For further information, check number 39 on page 126.

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HALF-GALLON [From page 29]

that efficiency falls off. Nothing beats a scope for making sure of good linearity in the amplifier. It has been found that when the 811A's are properly loaded the plate current will be approximately ten times the grid current.

This amplifier is so simple that only a few words are necessary on construction. The input and output circuits should, as in all amplifiers, be well separated from each other. The common practice of mounting the input circuit (in this case the filament circuit), below the chassis and the output circuit above the chassis serves very well. The usual precautions should be taken of making all rf leads (which in this case means almost all leads) as short and heavy as possible. It is recommended that those leads which are not designed to carry rf be shielded and that the power leads entering the chassis be by-passed.

The plate supply, as for all Class B amplifiers, should have good regulation. A good practice is to put as much capacity in the output side of the power supply filter as you can dig up. You can never get too much. The only limiting factor is your ability to pay and pay for high-voltage capacitors.

Up to approximately 1300 volts on the plates no bias will be required. If it is desired to run 1500 volts on the plates, an inexpensive 4.5-volt C battery in between the grids and ground will give practically shelf life.

The photos show how simple and compact such an amplifier can be made. The unit shown, one of several constructed, was made entirely from junk-box parts. This includes the 5" by 7" by 2" chassis, as the unused holes will testify. By using a larger chassis, a band-switching pi-net output circuit may be used in place of the plug-in arrangement shown. Also a third 811A might be added, providing the filament supply will handle it. The filament choke, rated at 15 amps, will easily handle three 811A's. Three tubes will lower the input impedance and thus give a closer match to the 50-ohm output of most commercial exciters. Also the total plate dissipation rating will be increased, permitting inputs of up to about 600 watts for SSB, DSB, and CW.

Parts List

- C1, C2, C3, C4—.01 mfd. and connected in parallel with 47-ohm, 2-watt resistor.
 C5, C6—.001 mfd, 5000-volt.
 C7—300 mfd variable, 0.1 inch spacing.
 RFC1—B&W FC-15 filament choke.
 RFC2—2.5 mh 500 ma. or better.
 R1, R2—7 turns No. 18 enamel wire wound on L1—See Table I.

Table I

Mc.	C-7 (uufd.)	L-1 (uh.)
3.8	275	6.3
7	130	3.7
14	65	1.9
21	50	1.1
28	32	.9

Approximate values of C and L based on a plate voltage of 1250, plate current of 350 ma., and Q of 12.