

• RE-BROADCASTS •

grid current will drop to zero. This indicates complete neutralization of the buffer. The buffer neutralization need not be touched again, and because each buffer coil has its own neutralizing condenser mounted on it this adjustment need not be reset when changing frequencies.

If the frequency is doubled in the buffer stage it is not necessary to neutralize it and the neutralizing condenser on the buffer coil can be set at approximately one-half maximum capacity.

Five: Switch on the buffer plate voltage and adjust the buffer tuning condenser for maximum grid current.

Six: With the power amplifier turned off rotate the power amplifier tuning condenser until a dip is noted in the grid current. This dip indicates that the power amplifier is not completely neutralized. Reset the power amplifier neutralizing condenser to a position at which no dip occurs when the power amplifier is tuned through resonance. Adjustments of the power amplifier neutralizing condenser interlock slightly with the settings of the buffer tuning so that the latter will have to be readjusted during neutralization.

Seven: Switch on the power amplifier plate voltage and tune the power amplifier to the point of minimum plate current.

Eight: The antenna can now be coupled to the transmitter by means of the antenna coupling coil and the antenna coupling and tuning adjusted so that the adjustment for minimum power amplifier plate current gives a value of 100 to 120 ma. The transmitter is now delivering power to the antenna and can be keyed in the ordinary manner. When a kit of tubes and crystal is ordered with the transmitter, a tuning chart is furnished giving the exact dial settings and meter readings for each frequency.

The 32B Transmitter is tuned exactly as indicated above. When the radio frequency portion of the outfit is functioning properly the microphone can be spoken into and the gain adjusted so that the modulator plate current talks up to approximately 100 ma on the peaks. The exact value of modulator plate current which gives 100% modulation is given on the tuning chart furnished with each transmitter.

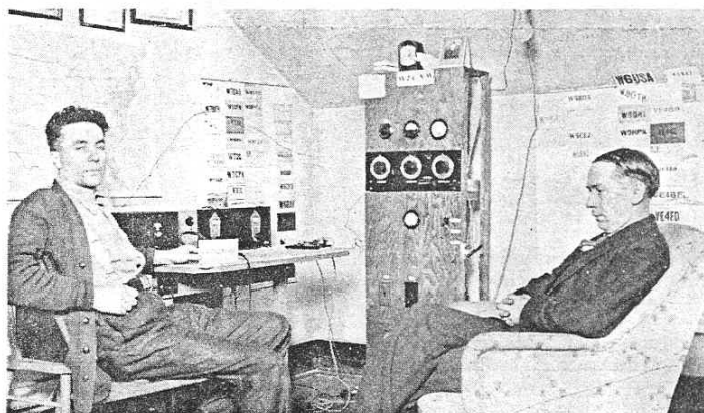
Performance

The range of a transmitter having the power of the 32A depends very largely upon the efficiency of the antenna. The 32A has shown itself capable of working both coasts of the United States very easily on any of the amateur bands under favorable conditions. A certain amount of foreign DX can be accomplished on the higher frequency bands. The frequency stability is excellent and keying is clean cut with a pure DC crystal note.

The 32B Transmitter, of course, has the same CW performance as the 32A. If a good quality microphone is used a surprising voice range can be obtained because of the complete modulation of its 25 watt carrier.

The mail has just brought in two photographs of amateur stations which are of particular interest. One of these is reproduced on the front page of this issue. It was sent to us by our good friend, Mr. E. C. Crossett, and is an excellent view of his station, W6DZH at Pasadena, California. His Collins 150B, with the 7D Speech Amplifier and 5A Condenser Microphone, are very much in evidence as are also a single signal receiver and an e.c. frequency meter. Mr. Crossett is well known to all the old-timers by his various calls: W1XZ, W1CCZ, W9MZ and W6DZH. The new equipment at W6DZH is getting a strenuous workout this winter on 20 meter phone and 40 meter CW.

The other photograph, equally interesting to us, was enclosed in a letter from Mr. Fred W. Fisher, W7CNW. Both letter and photograph are reproduced below. The letter will serve as an introduction to those amateurs who have not already made Mr. Fisher's acquaintance on the air.



Anacortes, Wn.,
Feb. 21, 1933.

Collins Radio Co.,
Cedar Rapids, Iowa.

Dear Sir:

Since I bought the 10A Crystal Unit and Power Pack from you this summer, a long time has gone by and I thought perhaps you might like to know whether or not we were satisfied with the apparatus and how it has worked out in actual performance.

We are very pleased with the two units; they have performed up to the best of satisfaction in every way and we have experienced but very little trouble with the installation. Until such time as we can see our way clear to buying more units and eventually acquiring the entire 150B, we have built a wooden rack using the same measurements as your relay racks and the job looks very neat. You will find a photograph of the outfit the way it now looks enclosed.

We are running the outfit with 1.5 Amps. in the antenna. The xrea draws about 15 mills; Buffer, 40 mills; and the final amp. between 80-95 mills. With no indication of the tubes getting hot.

A vertical Hertz antenna, 65' long and 45' high is used and works out very nicely.

The outfit has contacted 40 states, 6 provinces of Canada, four K7's, one K6 and all districts have been worked three different times. The reports received have all been very good.

Taken as a whole it has performed excellently and worked all kinds of dx on 80 meter band.

You can be assured of hearing from us again in the future as to how your equipment is performing.

Very sincerely,

Fred W. Fisher.

RCN/F

P. S.: Ur 80 and 20 meter phone heard here number of times.