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1900 NORTH AUSTIN AVENUE / CHICAGO, ILLINOIS 60639 / PHONE 745-5000 AREA 312

24 June 1965

N.V. Schneider
Altec Service Corporation
222 Park Avenue South
New York, N.Y. 10003

Dear Mr. Schneider:

In reply to your letter of 21 June, we would like to know if the distortion persists when the 100V is used alone.

The lamp load is only useful on 80 meters, since the reactance increases rapidly with frequency and they probably will not reach full brilliance above this band.

Also, the resting plate current in the 100V without RF drive should be somewhere between 50 and 60 watts. 6550 tubes are furnished in four different screen mu categories, and if you happened to obtain those with the lower screen mu your resting plate current will be low and could possibly cause the distortion shown.

If you have obtained the pattern shown in figure 2 when driving the 600L, you have been running 100 watts to the 813 grid which will damage the four 6800 ohm 2 watt resistors which are connected in series parallel in the 600L grid circuit to act as a load.

Also, if you have installed the birdie reduction potentiometers in the 100V and they are not adjusted properly, or if one of the 12BY7s happens to null at a point where the cathode voltage is unusually high, you will obtain a pattern similar to #4. See if the pattern can be improved by changing 12BY7s and readjusting the potentiometers.

Occasionally we have found a 6550 tube that shows signs of grid emission and the power will drop as you describe. However, the power input will gradually climb up on the

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100V when this happens.

Again, let us know how the 100V performs alone. You can check the 100V RF gain by following the procedure in the third paragraph of section XII, on page 6 of the enclosed instructions.

Very truly yours,

ZENITH SALES CORPORATION

Roy Scherman

Roy Scherman

Parts and Accessories Division

June 28, 1965

Reply to: 87 Walton St.
Atlanta 3, Ga.

Mr. Roy Scherman
Zenith Sales Corporation
1900 North Austin Avenue
Chicago, Illinois

Dear Mr. Scherman:

Thank you for your letter of June 24, 1965. Tests were made as suggested with 100V alone using reflected power bridge Heath Kit held at 100% reading on the bridge. Reading on 100V meter 140 dropping to 130 slowly. This is with CW position at 12 o'clock. With side band at 1000 cps reading on bridge meter 80 rising slowly to 90. Meter on 100V, 110 rising slowly to 125. This was to a dipole 80 meter antenna on air test. Upon test with 50 watt bulb, bulb lit very brightly and 100V meter 180 fairly steady on CW.

K on 6BQ5 measured 0 even with several changes of tubes. One of the problems I did find, however, causing some drop was relay contacts in mis-match section.

I would also like to inquire whether you have a modification or plans to convert 6AU4 tubes to Diodes.

Thanks very much, W4WOT

M. V. Schneider
Division Operations Supervisor

MVS:mr

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30 June 1965

N.V. Schneider
Altec Service Corp.
87 Walton Street
Atlanta 3, Georgia

Dear Mr. Schneider:

Replying to your letter of 28 June, it is typical for the 100V power to drop 7 or 8 percent on CW. By tightening the pressure on the sockets for the rectangular plugin coils, and assuming all tubes are very good, you can bring this down to 4 or 5 per cent.

Regarding the rise in power with 1000 cycles input, we suggest that you remove the audio limiter and install a jumper to see if it still persists. You might try measuring the audio voltage at the AF out jack to see if it also goes up with the power input.

We are at a loss to understand why you do not read a voltage across the 10 ohm resistor in the cathode of the 6BQ5. Perhaps the components and wiring in the cathode circuit should be examined carefully.

Many 100V owners are using Sarkes Tarzian S5251 for the low voltage rectifier, and S5019 (one) for the high voltage. The 100 ohm resistor in series with the selenium bias rectifier should be reduced to 27 ohms. If the 6550 resting plate current is still in excess of 65 watts, 100 or 200 ohms ½ watt should be connected in series with the 1800 ohm 2 watt resistor in the bias divider. In your unit, this would be underneath the bandswitch, and it is quite difficult to get at.

Very truly yours,

ZENITH SALES CORPORATION

Roy Scherman

Roy Scherman
W9FHS
Parts and Accessories Division