TYPE N AND ON2 CARRIER TELEPHONE SYSTEMS
DEVIATION REGULATOR — PRELIMINARY TESTS
CHECK OF PLATE SUPPLY AND ADJUSTMENT OF HEATER VOLTAGES

Deviation regulators are located at locally powered low-high N carrier repeater points. The plate voltage for the regulator is received from the local regulated +130 volt power supply. In this test a check is made that the proper plate voltage is being received by each of the four control amplifiers designated SLOPE, BULGE, CUBIC, and QUARTIC and the line amplifier designated AMP.

This procedure also describes the method for measuring and adjusting the heater voltage for the four control amplifiers designated SLOPE, BULGE, CUBIC, and QUARTIC, and the line amplifier designated AMP.

Initially, it will be necessary to measure and adjust the heater voltage for each of the amplifiers. Subsequent tests will be made on a routine basis, and when an individual amplifier unit or an electron tube in an amplifier unit is replaced.

APPARATUS:

2P Tube Test Set

CHECK OF PLATE SUPPLY

STEP	PROCEDURE
1	Adjust the 2P tube test set as follows: (a) Set the HTR switch to the NORM position. (b) Adjust all of the potentiometers associated with the selector switch to the extreme left position (maximum resistance). (c) Set the selector switch to the PWR V position.
2	Insert the OSC plug of the 2P tube test set into the OSC jacks associated with the amplifier under test. (The OSC jacks for each of the control amplifiers and for the line amplifier are located in the front of the filter and the network panel as shown in Fig. 1.)
3	The 2P test set meter should indicate a reading on the RED scale of — ***Requirement:*** 93 ± 5% for each amplifier circuit.

ADJUSTMENT OF HEATER VOLTAGES

STEP	PROCEDURE
1	Adjust the 2P tube test set as follows: (a) Set the HTR switch to the NORM position. (b) Adjust all of the potentiometers associated with the selector switch to the extreme left position (maximum resistance). (c) Set the selector switch to the HTR CUR position.
2	Insert the OSC plug of the 2P tube test set into the OSC jack of the amplifier under test. (The OSC jacks for each of the four control amplifiers and for the line amplifier are located in the front of the deviation regulator filter and network panel.)
3	Adjust the adjacent FIL potentiometer on the amplifier for a meter reading of — ***Requirement:*** 52 ± 2% on the ***BLACK*** scale of the 2P tube test set. ***Note:*** All of the plug-in units must be in place before any of the filament voltages are adjusted.
4	Repeat Steps 2 and 3 for each amplifier unit.

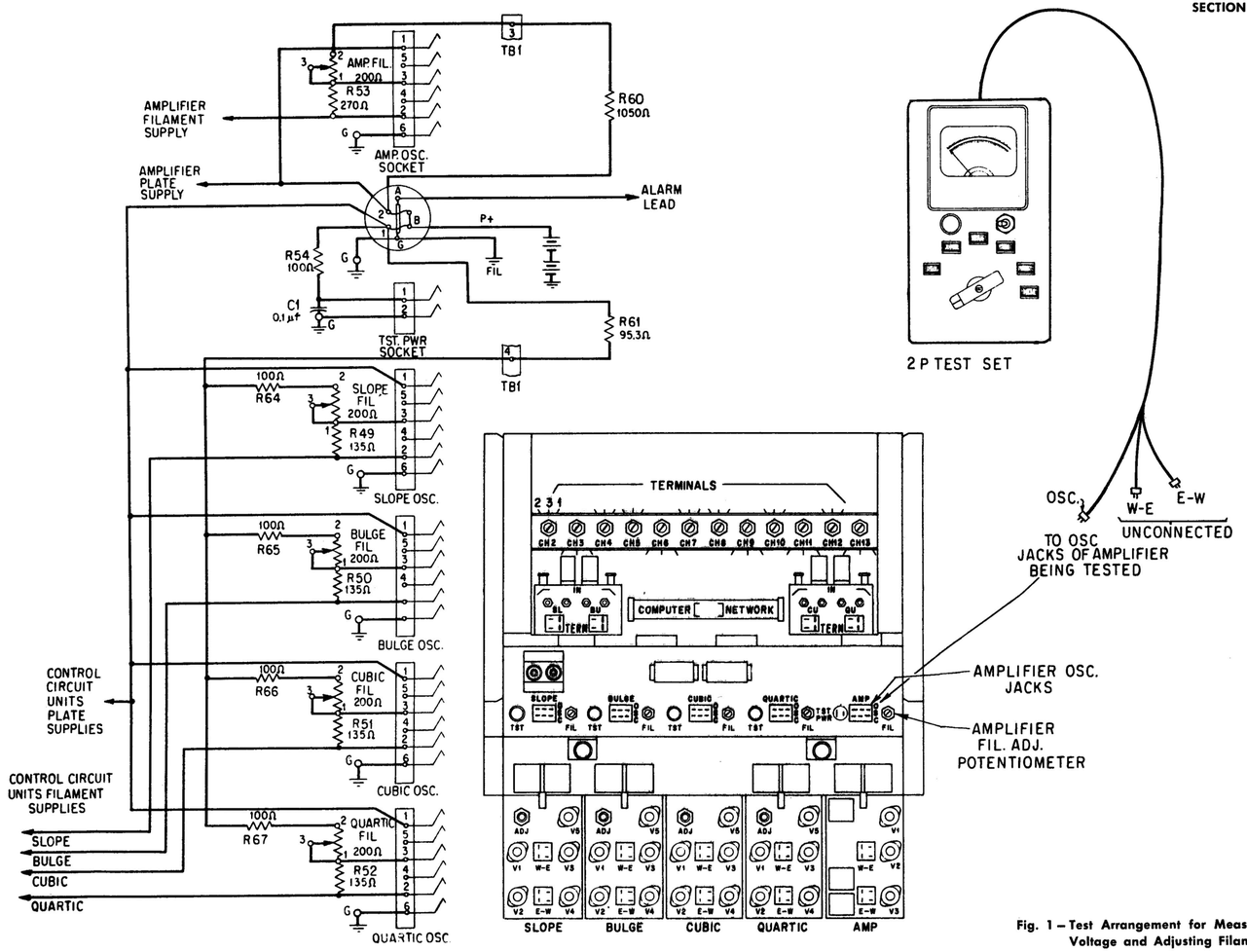

Fig. 1 — Test Arrangement for Measuring Plate Voltage and Adjusting Filament Voltage