PERFORMANCE REQUIREMENTS

124B AMPLIFIER

GENERAL EQUIPMENT REQUIREMENTS

COMMON SYSTEMS

1. GENERAL

1.01 This section covers the performance requirements which 124B Amplifiers shall meet before turnover to the Telephone Company.

1.02 This section is reissued to add Hickok Model 531 Tester in 2.02, and to change the limits in 2.03.

1.03 Reference shall be made to Section 800-630-180 covering General Requirements and Definitions for additional information necessary for the proper application of the requirements.

1.04 This equipment contains coils which require precautions as specified in 800-630-180 to avoid possible injury through core magnetization.

2. REQUIREMENTS

A. Transmission Tests

General

2.01 All tests shall be made with the amplifier connected for 600 ohms nominal load impedance unless otherwise specified.

Vacuum Tube Tests

2.02 Where a Hickok Model 530B or 531 Vacuum Tube Tester is available, all tubes shall meet the requirements outlined in the instructions supplied with the test set or covered in Section E40.551.

1000-Cycle Gain Tests

2.03 The 1000-cycle gain shall be measured on each step of the input transformer. The gain on each step shall be within ± 2 db of the nominal value given in the table below, and the difference in the gain between any two adjacent steps shall be 2.0 ± 0.5 db.

STEP	GAIN, DB, WHEN USING FIG. A	FIG. B	FIG. C	FIG. D	FIG. E
1	29	22	8	8	2
2	31	24	10	10	4
3	33	26	12	12	6
4	35	28	14	14	8
5	37	30	16	16	10
6	39	32	18	18	12
7	41	34	20	20	14
8	43	36	22	22	16
9	45	38	24	24	18
10	47	40	26	26	20
11	49	42	28	28	22
12	51	44	30	30	24
13	53	46	32	32	26
14	55	48	34	34	28
15	57	50	36	36	30
16	59	52	38	38	32
17	61	54	40	40	34
18	63	56	42	42	36
19	65	58	44	44	38
20	67	60	46	46	40

Gain-Frequency Test

2.04 The gain at other frequencies as specified below shall be measured on step 20. The deviation from the corresponding 1000-cycle gain measured in 2.03 shall be as follows:

FREQ., CPS.	DEVIATION FROM MEASURED 1000-CYCLE GAIN, DB
35	0 ± 1.0
100	0 ± 0.5
9500	0 ± 1.2

If the T2 output transformer is to be strapped so that the amplifier operates into a nominal load impedance different from 600 ohms, the 1000-cycle gain shall be measured on step 20 after the output transformer has been strapped. The amplifier output terminals 13-14 shall be terminated by a resistance equal to the nominal load impedance. The deviation from the corresponding 1000-cycle gain measured in 2.03 shall be as follows:

NOM. LOAD IMP., OHMS	DEVIATION IN DB FROM MEASURED 1000-CYCLE GAIN WITH 600-OHM NOM. LOAD IMP.
150	−7 ± 1
30	−13 ± 1
16	−16 ± 1
7.5	−19.5 ± 1
1.75	−26 ± 1.5

Noise Tests

2.05 ***Application:*** Noise tests shall be made on all installations where the Telephone Company has the necessary noise measuring equipment available for use by the WECo installers. Noise troubles which are due to manufacturing defects or installation errors shall be cleared by the installer. Noise trouble not due to manufacturing defects or installation errors (such as noise due to conditions existing in the office prior to the installation of the new equipment, to magnetic induction from power circuits, to the specified equipment arrangement, etc.) shall be reported to the Telephone Company but need not be cleared by the installer.

2.06 ***Requirements:*** With the input transformer set on step 20 and the input terminated in 600 ohms, measure the metallic circuit noise at the output. This shall not be greater than 40 db above reference noise (program weighting), as measured with a 2A or 2B Noise Measuring Set ("PROG" input), or with the aid of a 4B Program Frequency Weighting network or its equivalent. If these measuring means are not available, the noise shall not exceed 55 db above reference noise unweighted.

Crosstalk Tests

2.07 No crosstalk tests are considered to be necessary on this equipment.

3. TEST REPORTS AND RECORDS

3.01 The results of all transmission measurements called for in this specification shall be recorded on suitable data forms and turned over to the local representative of the Telephone Company in the office where the equipment is installed.