162A1 AND 162B1 HIT INDICATORS
OPERATION

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1. GENERAL

1.01 This Section covers the methods of adjusting and operating the 162A1 and 162B1 hit indicators for telegraph circuits.

2. REASON FOR REISSUE

2.01 To revise information for 162A1 hit indicator to be in accordance with latest design (SD-70168-01 Figs. 4 and 5).

3. DESCRIPTION OF TESTS AND ADJUSTMENTS

162A1 Hit Indicator

(A) Relays

3.01 The relays shall be adjusted in accordance with the Bell System Practices covering the relays and the testing apparatus.

(B) Tube

3.02 The 162A1 hit indicator uses a cold cathode tube which does not contain a filament. Therefore, no adjustment pertaining to the tube is required at the time of installation.

3.03 Test the ability of the tube and its associated circuit to function as follows:

(1) Patch a two-conductor cord to the (HIT) jack. Ground the tip momentarily. The (HIT) lamp should light.

Note: Some tubes may become conductive and the (HIT) lamp lighted when a patch is made to (HIT) jack. If this occurs, operate (REST) key to extinguish the lamp and then proceed.

(2) Operate the (REST) key momentarily. The lamp should be extinguished.

(3) Ground the sleeve momentarily. The (HIT) lamp should light.

(4) Operate the (REST) key momentarily. The lamp should be extinguished.

(5) Remove the patch cord from the (HIT) jack.

162B1 Hit Indicator

(A) Relays

3.04 The relays should be adjusted in accordance with the Bell System Practices covering the relays and testing apparatus.

(B) Tube

3.05 The filament current of the tube should be adjusted as follows:

(1) Patch a portable milliammeter into the (FIL) jack.

(2) Strap resistances F2, F3 and F4 to give .35 ± .005 ampere at the average office voltage.

3.06 The grid bias voltage should be adjusted as follows:

(1) Turn potentiometer (P) counterclockwise as far as it will go.

(2) Insert a short circuiting plug into the (HIT) jack at any appearance.

(3) By means of test clips connect a voltmeter having a scale reading up to 26 volts or more by tenths of a volt between terminal 5 of the input transformer (T) and the filament ground.

(4) Turn potentiometer (P) slowly clockwise until the tube (A) glows. Note the reading of the meter.

(5) Turn potentiometer (P) counterclockwise until the voltage reading on the meter is increased as closely as possible by the amount indicated in Table 1.

(6) Restore the circuit to normal by momentarily operating (REST) key and removing the short circuiting plug from the (HIT) jack.

TABLE 1

Plate Voltage at Fuse Panel	125	127	128.5	130	131.5	133	135
Increase in Meter Reading	3.3	3.3	3.1	3.0	2.9	2.8	2.7

4. OPERATING PROCEDURE

4.01 The operating procedure for both the 162A1 and the 162B1 hit indicators is as follows:

(1) By means of a two-conductor patch cord and an interposition trunk, when necessary, establish a connection from the (HIT) jack of an idle hit indicator to the (METER) jack of the desired telegraph repeater. Make the patch first to the (HIT) jack and then to the (METER) jack.

(2) Depress the (REST) key momentarily in case the (HIT) lamp lights while making this patch.

(3) On subsequent lighting of the (HIT) lamp, depress the (REST) key and hold for a sufficient period of time to determine if the (HIT) lamp will flash intermittently. Five seconds should be sufficient. If the lamp does not flash, transmission signals are not being received and it is probable that a hit occurred on the circuit connected to the indicator.

(4) To disconnect indicator circuit, remove patch cord from the (METER) jack and then from the (HIT) jack.