

## AMPLIFIERS—238 TYPE

### 1. GENERAL

- 1.01 This section describes the 238A amplifier and tells how to install it.
- 1.02 This section is reissued to change the value of resistor R1 (Fig. 1).
- 1.03 Sets equipped with a 238A amplifier have transmission qualities equivalent to 507-, 509-, 557-, or 559-type telephone sets.
- 1.04 The 238A amplifier has no polarity guard and can be used with sets on long-line circuits only.

### 2. IDENTIFICATION

- 2.01 The 238A amplifier consists of a transistor, capacitor, inductor, and two resistors on a printed circuit board which is mounted on the back of a colored plastic transmitter cup. (See Fig. 2.)
- 2.02 The 238A amplifier furnishes approximately a 7 db gain.

- 2.03 A label is shipped with each amplifier and identifies the set. It reads EQUIPPED WITH 238A AMPLIFIER.

### 3. INSTALLATION

- 3.01 The 238A amplifier can be installed in any G-type hand set except:

- Older handles having molded cord retainer posts.
- G3N3 hand sets.
- G3P hand sets.
- G3R hand sets.
- G6AR hand sets.
- G7AR hand sets.
- G8A hand sets.

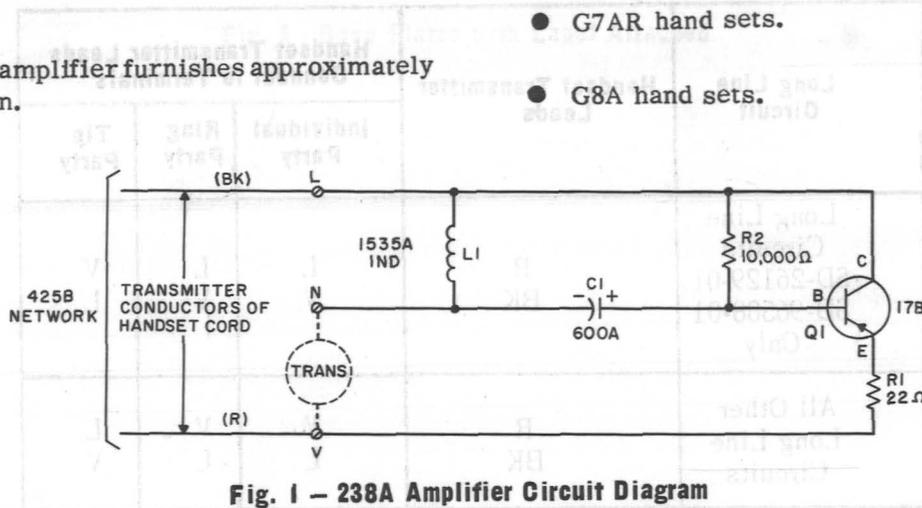


Fig. 1 - 238A Amplifier Circuit Diagram

**3.02** Connect handset cord leads as shown in Table A. Sidetone will not be heard in handset if amplifier polarity is not correct (Fig. 1).

**3.03** Attach the adhesive label to the bottom of the telephone set (Fig. 4).

Note: The label must be attached to a clean surface.



Be sure screw on terminal N is tight before replacing transmitter (Fig. 3).

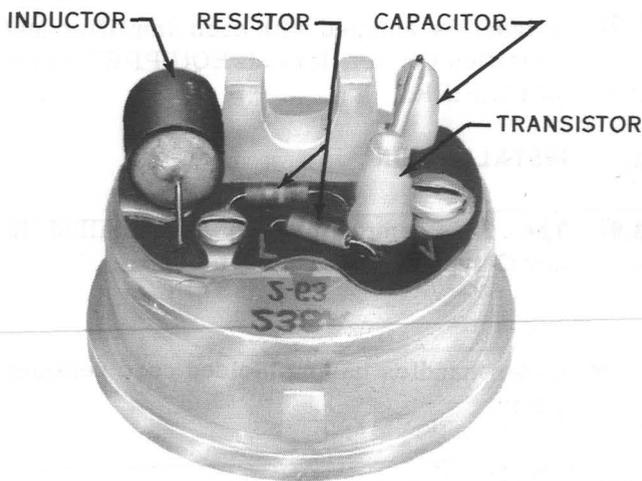


Fig. 2 - 238A Amplifier, Components

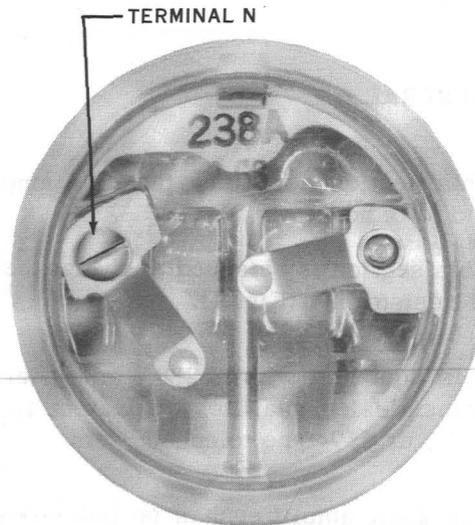
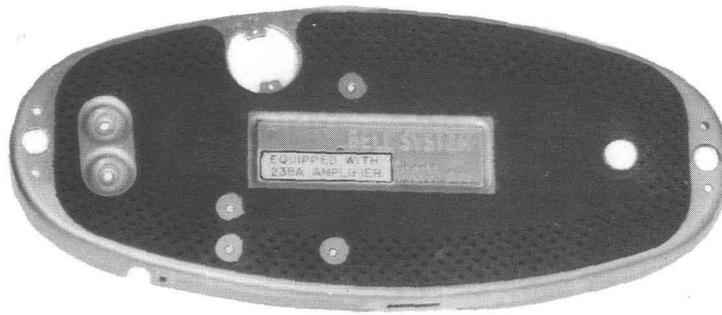


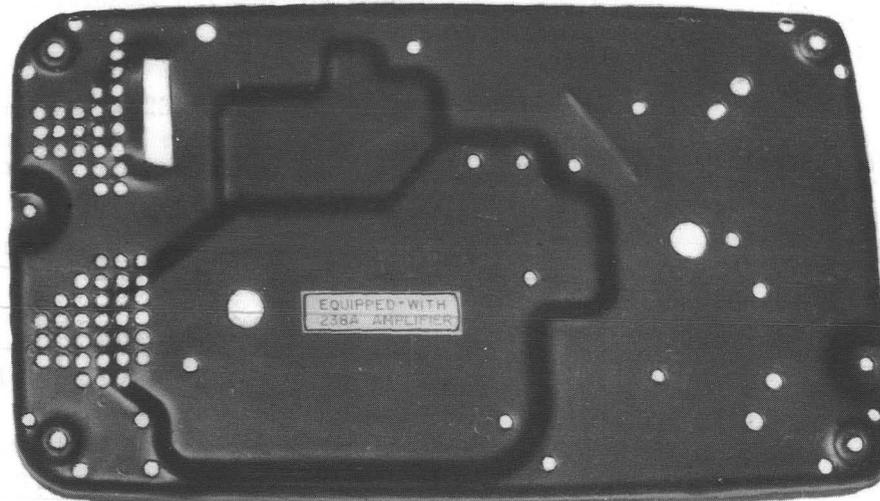
Fig. 3 - 238A Amplifier

**TABLE A**  
**HANDSET CORD LEADS**

Long Line Circuit	Handset Transmitter Leads	Handset Transmitter Leads Connect to Terminals		
		Individual Party	Ring Party	Tip Party
Long Line Circuits SD-26129-01 SD-96588-01 Only	R BK	L V	L V	V L
All Other Long Line Circuits	R BK	V L	V L	L V



700- AND 1700-TYPE TELEPHONE. BASE PLATE



500- AND 1500-TYPE TELEPHONE. BASE PLATE

**Fig. 4 - Base Plates with Label Attached**