

## KS-16831 AMPLIFIERS INSTALLATION AND MAINTENANCE

### 1.00 GENERAL

1.01 Mounting arrangements, equipment options, and circuit options for this equipment should be specified on the circuit or service order.

1.02 The 467-type apparatus case will be required for installations in manholes or on poles. The KS-16831, List 5 carrying case is used for mounting on relay racks or for temporary installations of portable equipment.

### 2.00 MOUNTING

2.01 Fig. 1 and 2 show a typical arrangement of apparatus on the mounting plate of a 467-type apparatus case. The mounting hardware is supplied with the apparatus case.

2.02 Fig. 3 shows the list 1 amplifiers and list 4 power supplies mounted in a list 5 carrying case.

2.03 The list 5 carrying case is designed to mount on 19-inch relay racks. It may be mounted on 23-inch racks with an applique unit supplied locally.

2.04 The list 5 carrying case does not provide mounting space for the equalizers. They must be mounted externally.

2.05 The KS-16831, List 6 bracket assembly may be mounted in the list 5 carrying case to provide mounting space for one list 1 amplifier, one KS-16816, List 2 equalizer, and one KS-16831, List 4 power supply. This arrangement provides a portable unit for use on local program channels.

2.06 The KS-16816, List 1 equalizer used with the list 1 amplifiers should be installed in accordance with the section entitled KS-16816, List 1 Equalizer, Description.

2.07 Equalizers and transformers for the list 3 amplifiers may be mounted on locally-provided applique units.

2.08 These amplifier systems may be installed at the subscriber's location using backboards of the 89 type or substantial wall surfaces for mounting. The location chosen should meet the requirements observed for locating station equipment. Station-type protectors should be used for these installations.

### 3.00 WIRING

3.01 The 761A cable should be used for wiring between all units in these installations. *The shields must be bonded together and terminated on terminal 1 of the amplifier.*

3.02 Fig. 1 shows a typical wiring layout for use with the 467-type apparatus case.

 *Disconnect the battery supply to these amplifiers before working on any wiring. The open circuit voltage with cable pair supply will be 130 volts.*

3.03 Special care must be used when handling shielded wire to prevent injury to the hands. *Cut or broken shield strands can cause puncture wounds.*

3.04 All binding posts and terminal punchings associated with the cable facility for these installations must have insulators installed. Place insulators in accordance with the section covering the safeguarding of special service lines.

3.05 The completed installation should be tested in accordance with Section 024-175-500.

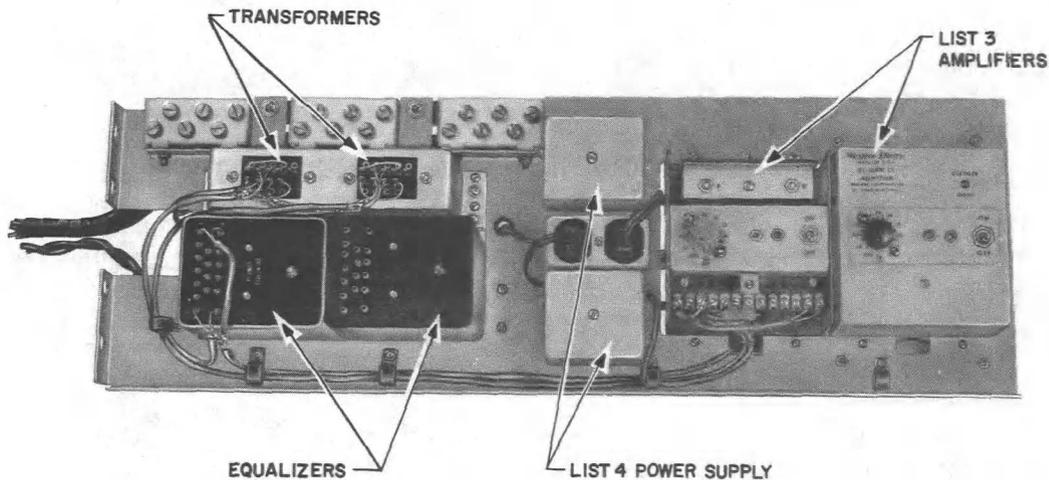


Fig. 1 — Equipment Mounted on Bracket of 467-Type Apparatus Case, Front View

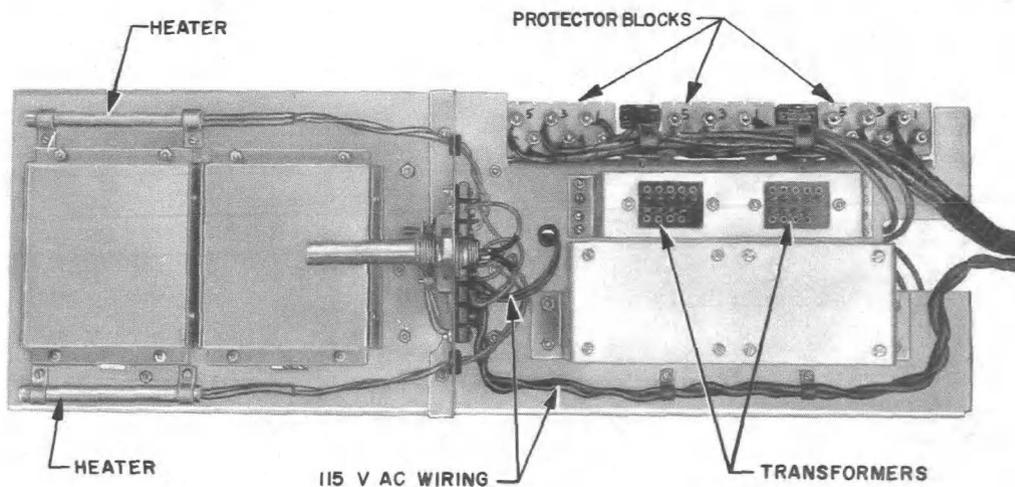


Fig. 2 — Equipment Mounted on Bracket of 467-Type Apparatus Case, Rear View

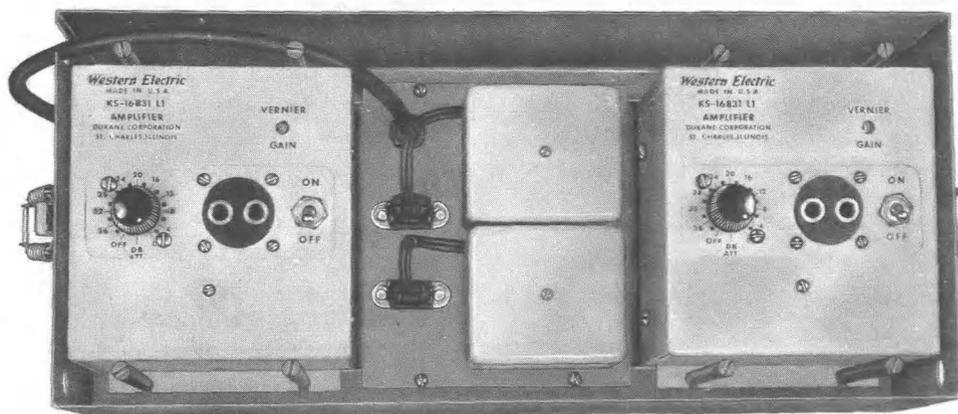


Fig. 3 — Equipment Mounted on List 5 Carrying Case

**4.00 MAINTENANCE**

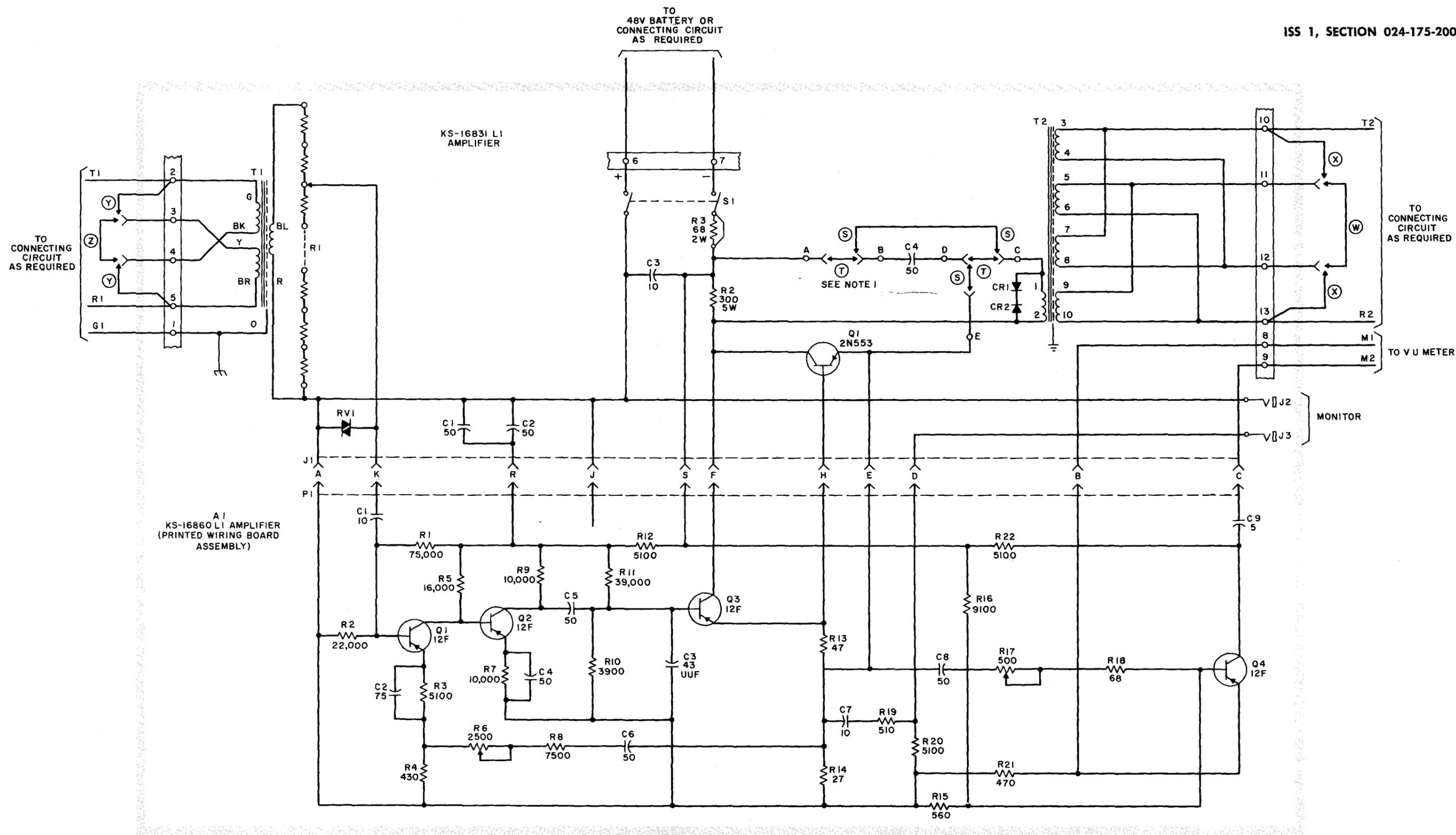
**4.01** The tests recommended in 3.05 should be made to determine the performance of these amplifiers when clearing troubles. If trouble in the amplifier is indicated by the tests, the printed circuit board should be replaced.

**4.02** If replacing the printed circuit board does not clear the trouble, the entire amplifier should be replaced.

**4.03** No routine transmission test should be required.

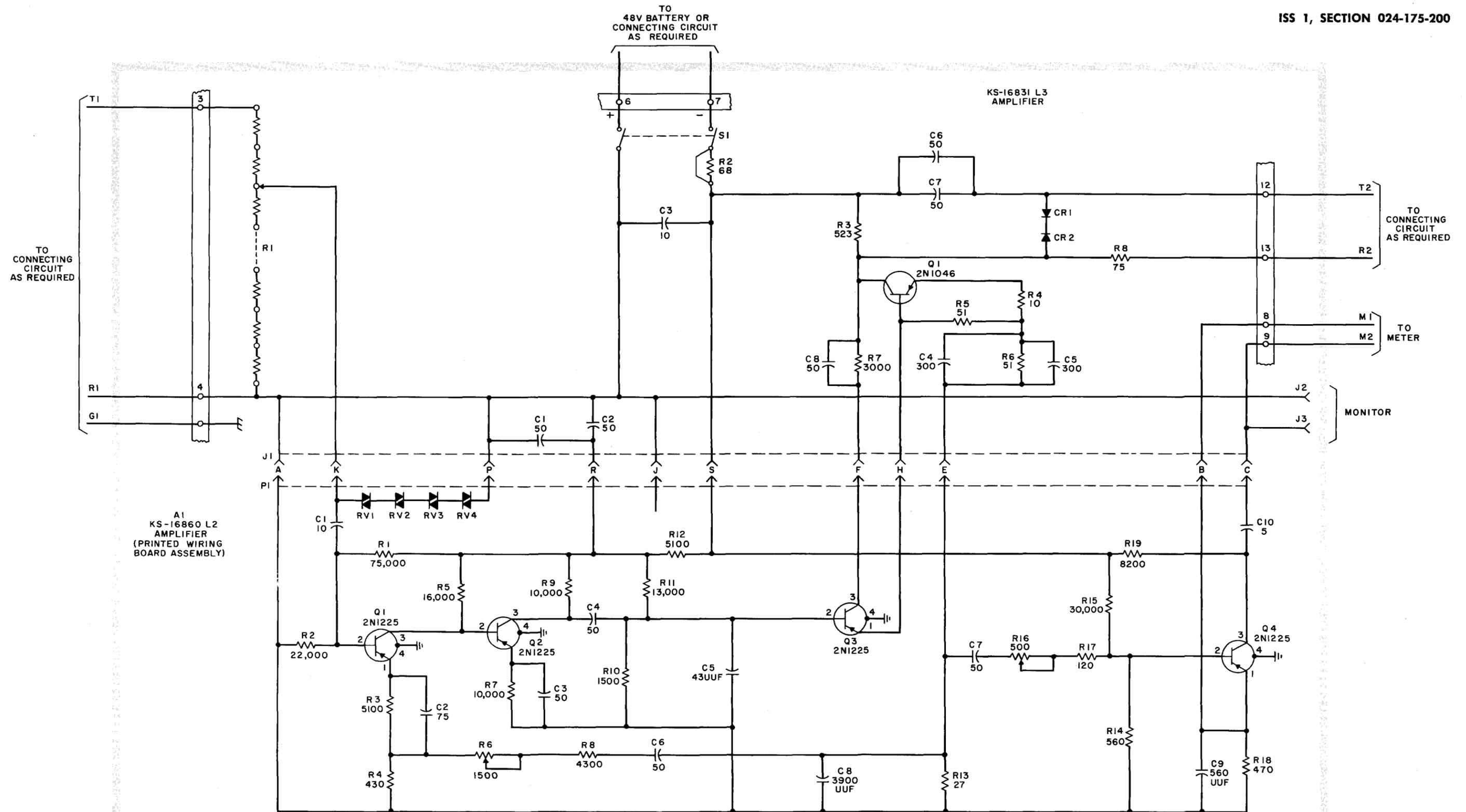
**4.04** Fig. 4 and 5 show the schematic layout of the amplifiers.

**4.05** Refer to CD-95297-01 for detailed description of operation of these amplifiers.



Note 1: T option furnished as manufactured.  
 Note 2: Unless otherwise specified, resistance values are in ohms and capacitance values are in microfarads.

Fig. 4 - Amplifier KS-16831, List 1, Schematic



Note: Unless otherwise specified, resistance values are in ohms and capacitance values are in microfarads.

Fig. 5 - Amplifier KS-16831, List 3, Schematic