

TELEPHONE SETS—331-TYPE PORTABLE

1. GENERAL

1.01 This section covers identification, installation, connection, and maintenance information for the 331-type portable telephone set.

1.02 This section is reissued to:

- Add 331B telephone set (current version)
- Add terminal board and component assembly
- Add new Fig. 5



Fig. 1—331B Telephone Set

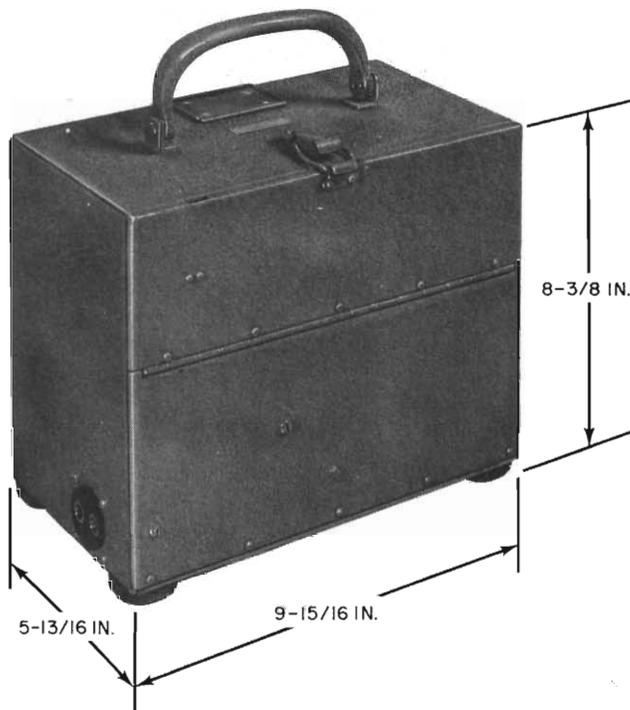


Fig. 2—331A (MD) Telephone Set

2. IDENTIFICATION

2.01 Purpose.

- Portable telephone set employing local battery talking, and hand generator signaling.
- Intended primarily for use by radio broadcasting companies to provide private-line communications between remote program pick-up points, and control centers.
- Can be used for other private-line services where local talking battery and ac signaling are desired.

2.02 Ordering Guide.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

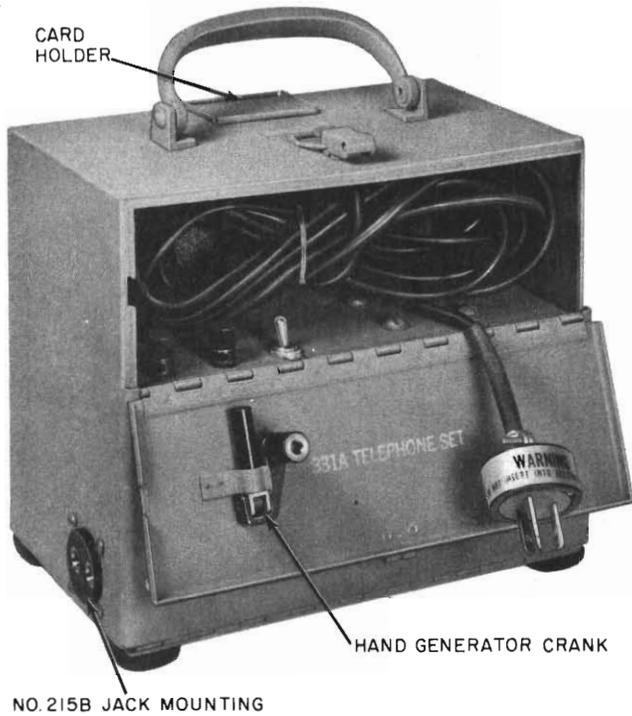


Fig. 3—331A (MD) Telephone Set, Upper Door Open

- Jack, 215A
- Jack, 223A
- Ringer, B1AL (remove gongs) (331A)
- Ringer, P1B (331B)
- Line Cord [consists of 15-foot length of 2/18 flexible Underwriters type SVO cord and 812360824 (P-23F082) cap assembly].

(c) **Replaceable Optional Components:**

- Set, Head, Telephone, 52L (replaces 52B which is rated MD)
- Set, Hand, F3B-03 (with 13-foot cord) 331A
- Cord, Handset, H4DL-03 (13-foot cord)
- Cord, Handset, H4BY-03 (13-foot cord)
- Set, Hand G5CR-03 (with 7-foot cord), 331B
- Cord, handset, 44DM-03 (7-foot cord).

Note: Sets manufactured before 1/71 were supplied with the F3B-03 handset.

(a) **Basic Telephone Sets:**

- Set, Telephone, 331B (replaces 331A telephone set)
- ♦Battery, KS-6322 (2 required).♦

(b) **Replaceable Components:**

- Capacitor, 195A (331A only)
- ♦Terminal Board and Component Assembly (841387863)♦
- Coil, Induction, 104A
- Cord, D3BP-03 (replaces D3AY cord which is rated MD)
- 811051903 (P-10E190) Crank, Hand Generator
- Generator, Hand, KS-13766
- Indicator, 21C-49 (replaces 21B-03 and 21B-49 indicators, which are rated MD)

2.03 Color:

- The 331B telephone set box assembly is furnished in Bell System blue textured vinyl finish and has the bell emblem
- Cords and handset are furnished in black (-03) only
- The 21C indicator is furnished in light olive gray (-49) only.

2.04 Design Features:

- Portable self-contained telephone set
- Plug and line connections may be used at different pickup points as desired by user
- Visual indication for use at locations where quiet signaling is desired
- Ringer cutoff switch

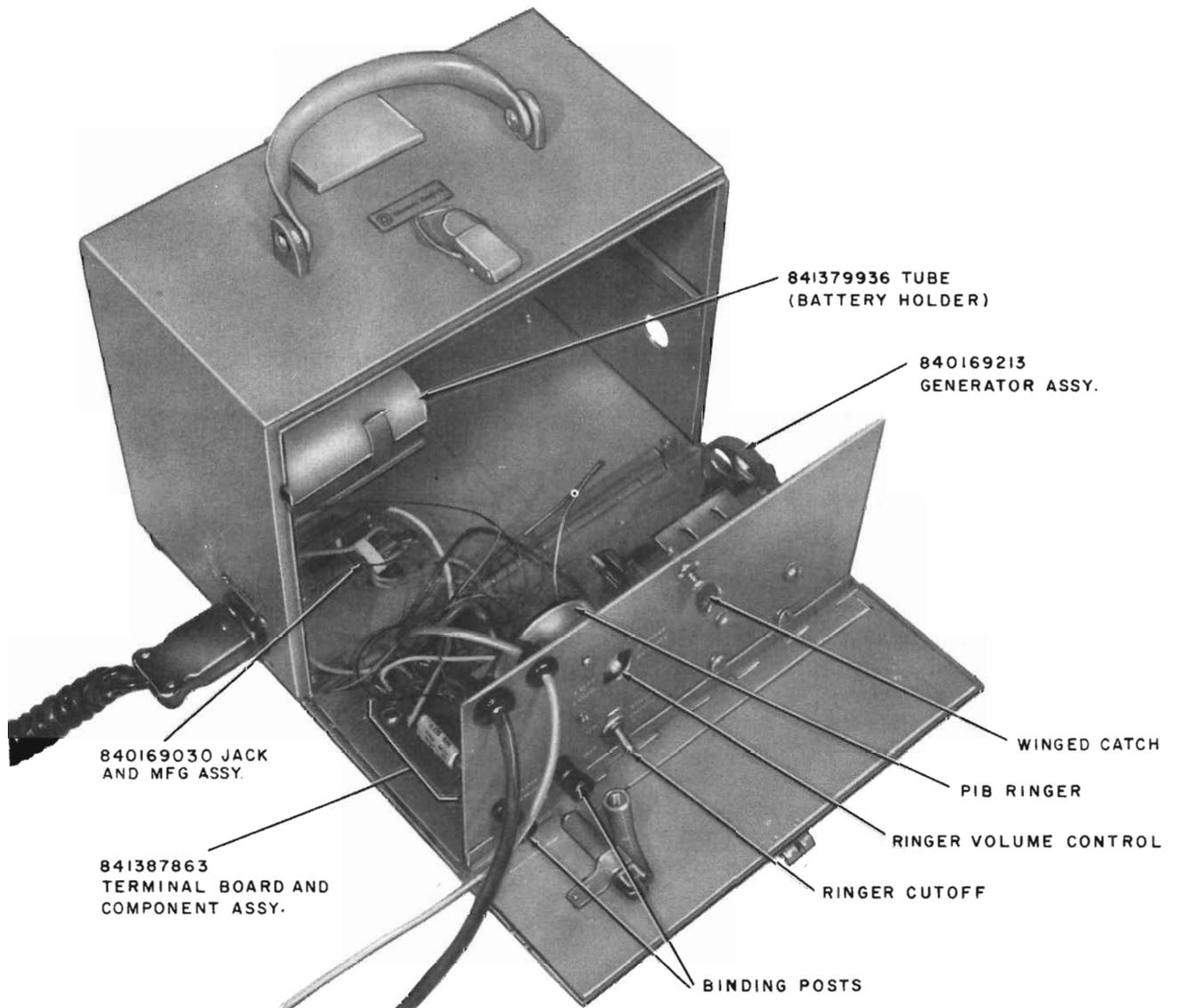


Fig. 4—331B Telephone Set, View Showing Internal Parts

- Hand turned generator for ac signaling
- Line connections available by plug-ended line cord or directly to binding posts in upper compartment
- Jacks to permit use of optional headset or handset
- Metal case.

2.05 Application.

- Central Office, PBX, or key system line circuits.

2.06 Operating Features.

- **Hand Generator:** Insert detachable crank from upper compartment into generator and turn for ac signaling output.
- **Ringer Cutoff Switch:** Move to ON position for audible ringer with visual

indication from 21C indicator or to OFF position for visual indication only.

2.07 *Associated Apparatus.*

- **Handset Push-to-Talk Switch:** Depress button in center of handle to talk; release to listen. Handset plugs into jack.
- **52L Head Telephone Set:** Provides hands free operation of the 331-type telephone set. Headset plugs into jack.

3. INSTALLATION

3.01 Locate the telephone set in accordance with the customer's wishes and any special instructions that may appear on the service order.

3.02 Install two KS-6522 dry cells (order separately) by releasing the wing catch in the rear of the upper shelf and swinging the entire shelf out to allow access to the battery holder.

3.03 Line connections may be made by means of the line cord and Hubbell plug or by connecting inside wire directly to the two binding posts in the upper compartment.

Caution: *If Hubbell plug equipped line cord is used, customer should be cautioned to observe the warning printed on the plug. This plug can be accidentally inserted into a standard 220 volt power receptacle.*

3.04 The 52L head telephone set (ordered separately) is equipped with a plug-ended cord having a connecting block located near the set end. If monitoring is desired, a separate receiver can be plugged into this connecting block.

3.05 Position the 21C indicator so that it is readily visible from all directions. Buzzer (B1AL ringer in 331A or P1B ringer in 331B) can be connected or disconnected by means of the toggle switch in the upper compartment.

4. MAINTENANCE

4.01 Maintenance of the ringer, optional handset, and head telephone set is outlined in sections covering these components.

4.02 *Battery Holder.*

- With batteries removed, battery contact springs shall be a minimum 1/4-inch closer to each other than when the batteries are installed. Gauge by eye.
- Battery holder retaining springs shall have sufficient tension to hold tube and batteries firmly in place. Adjust as required.

4.03 *Hand Generator.*

- If hand generator sticks or turns hard, due to lack of lubrication, apply a small amount of KS-14774L2 lubricant to the gears, cam surfaces, and shaft bearings. After application of the lubricant, turn generator, using its crank, several times to work the lubricant into the parts.
- If relubricating the generator does not result in free operation, cause of sticking or hard turning may be due to breakdown of insulation in the generator, in which case replace the set.
- If crank handle should stick to threaded shaft of generator and not release properly for removal, short the binding posts together to place a load on the generator and then turn crank backwards. This should release crank. To prevent recurrence, put small amount of lubricating oil on threaded portion of shaft.

4.04 **Line Cord:** If Hubbell plug equipped line cord is defective or does not have the warning label in place around plug, replace the line cord or place a tag near the plug containing the following warning.

Warning: *Do not insert into electrical power.*

5. CONNECTIONS

5.01 Connections for the 331B and 331A telephone sets are shown in Fig. 5, 6, and 7, respectively.

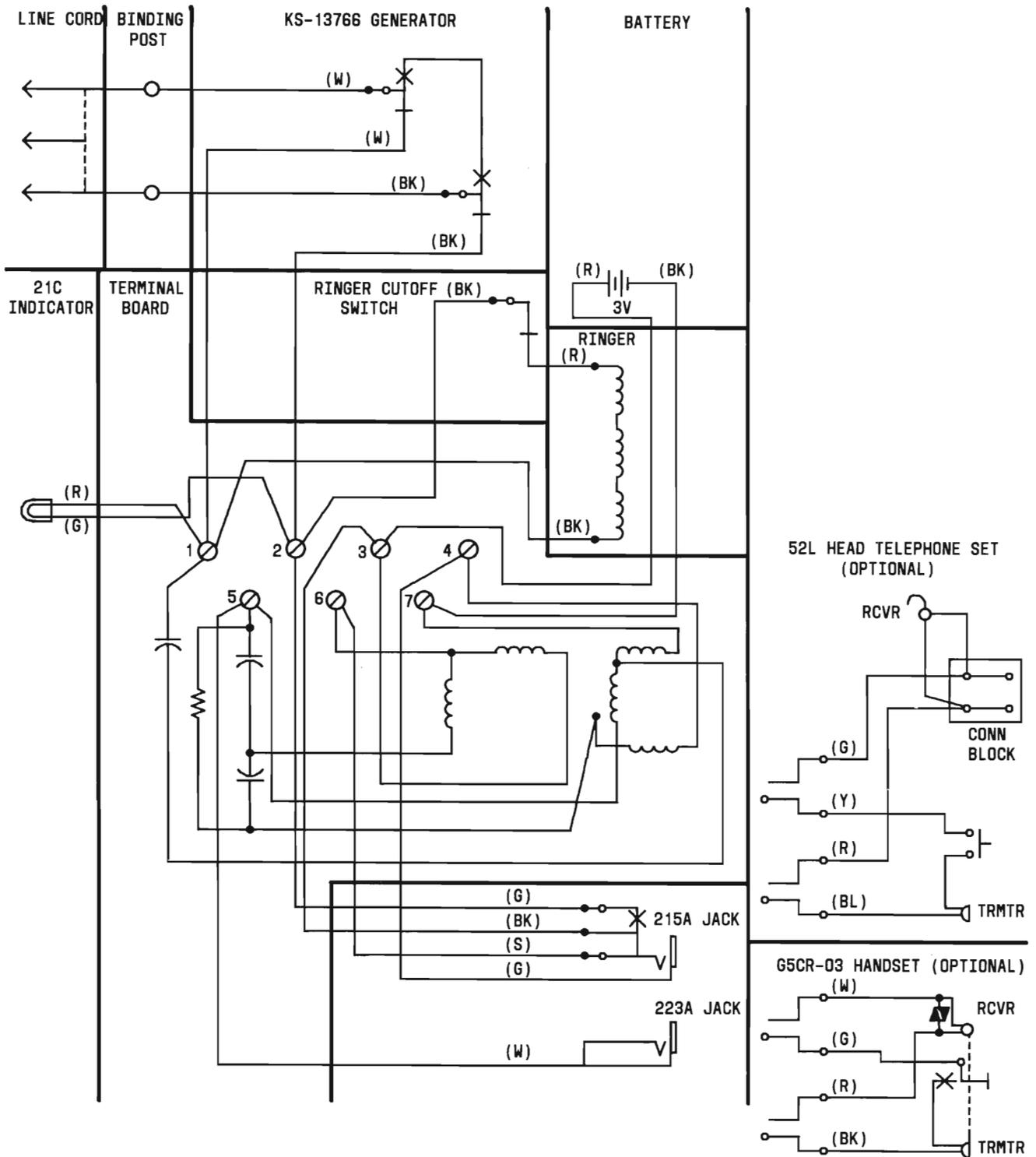


Fig. 5—331B Telephone Set, Wiring Diagram (Manufactured After 4/78)

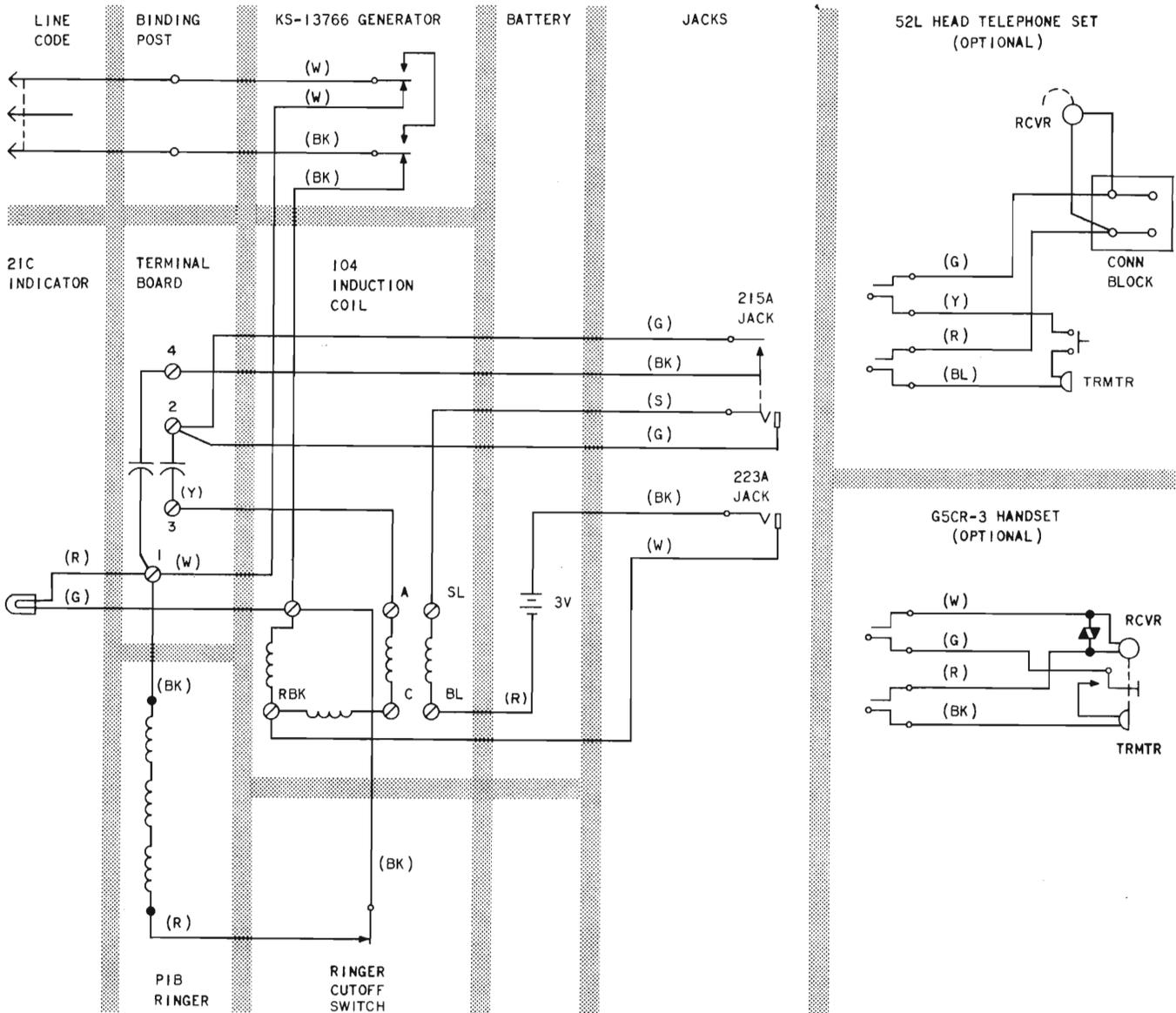


Fig. 6—331B Telephone Set, Wiring Diagram (Manufactured Before 4/78)

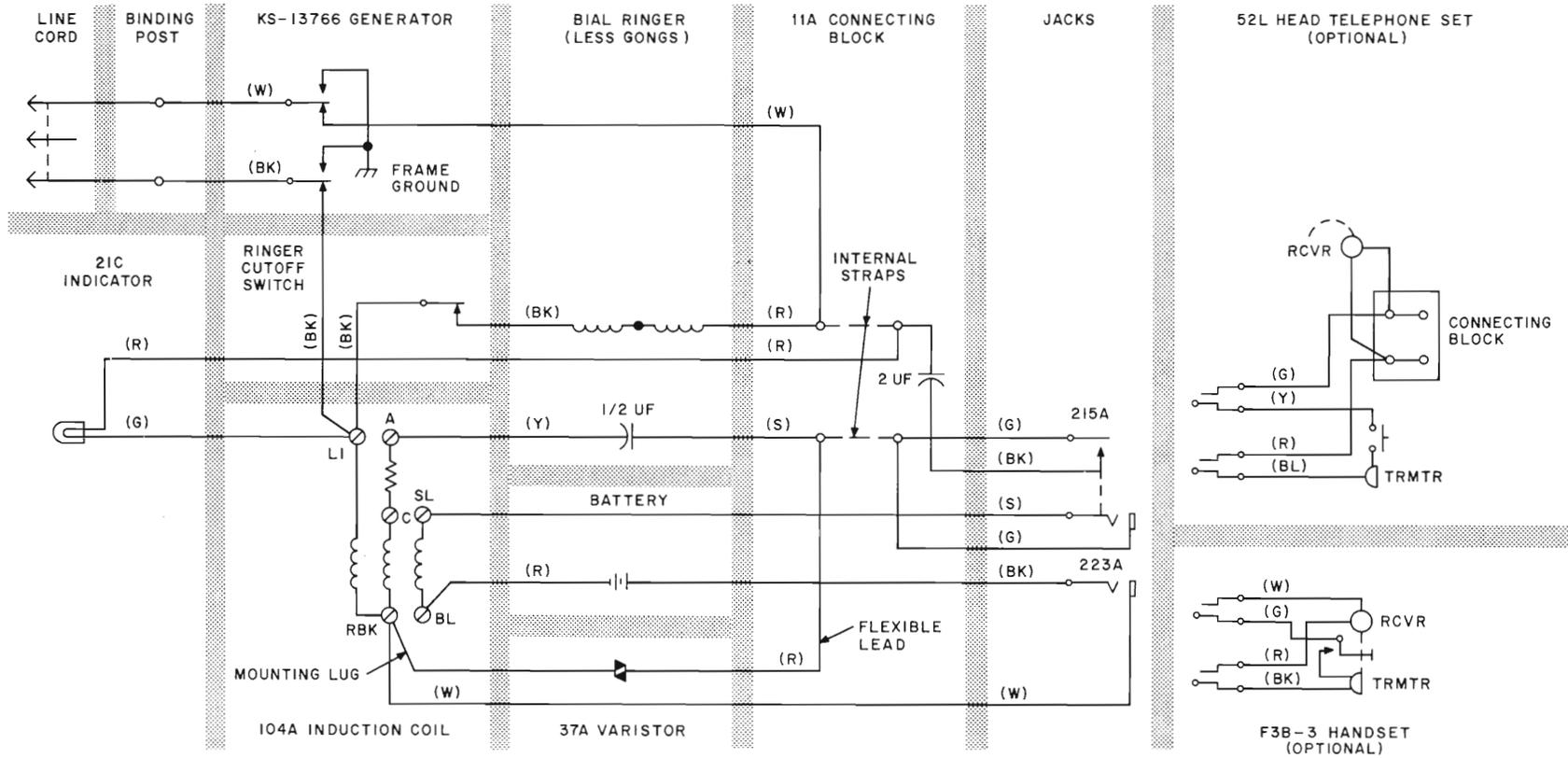


Fig. 7-331A (MD) Telephone Set, Wiring Diagram