

BELL SYSTEM PRACTICES
Station Installation and Maintenance

SECTION C46.351
Issue 1, 11-1-31
Standard

ANTI-SIDETONE LINE AND RINGER CONNECTIONS

LOCAL BATTERY TALKING COMMON BATTERY SIGNALING MAIN STATIONS

1. GENERAL

1.01 This section covers the main station connections for regular manual or dial local battery talking, common battery signaling stations when anti-sidetone subscriber sets are used.

1.02 **Wall Type Sets:** The diagrams show the apparatus in subscriber sets, but do not include the dial, transmitter and receiver connections in wall type sets. However, the same line and ringer connections apply for these sets.

1.03 **Sidetone Subscriber Sets:** The diagrams show anti-sidetone subscriber sets for all of the stations on party lines. However, if permitted by zoning instructions sidetone subscriber sets may be used at any of these stations, provided, of course, they are connected according to sidetone connections.

1.04 **Line and Ground Wires:** The tip, ring and ground wires shown in the diagrams should have the following tracers:

	Inside Wire	Bridle or Duct Wire
Tip	Green	Plain
Ring	Red	Single Tracer
Ground	Yellow	Double Tracer

1.05 **Sidetone Balance:** In order to afford facility for obtaining the best sidetone balance at each installation an optional wiring arrangement is provided. This permits connecting into the network circuit of the induction coil either a 300-ohm resistance or a 1/2 m.f. condenser as specified. All orders covering the installation of a set of this type should specify whether the resistance or the condenser is to be used.

If the order does not specify the proper connection and the test deskman cannot supply it, set up a few typical calls (taking precaution that charges to the subscriber will not be made) and then connect the condenser and resistance alternately and talk into the transmitter to determine which connection gives the least sidetone. Connect the one which gives the least sidetone and advise the test deskman of the connection made.

2. CONNECTIONS

2.01 Individual Lines—Manual and Dial, P.B.X. Stations—Regular Manual and Dial.

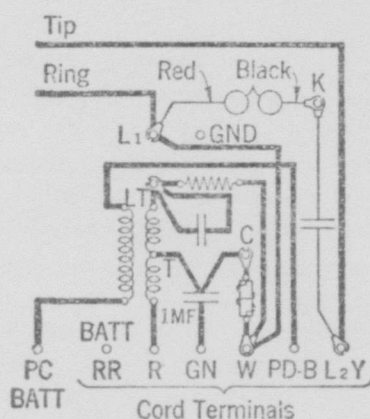


Fig. 1.

2.02 Two-Party Selective Flat Rate—Manual and Dial. Two-Party Selective Message Rate—Manual.

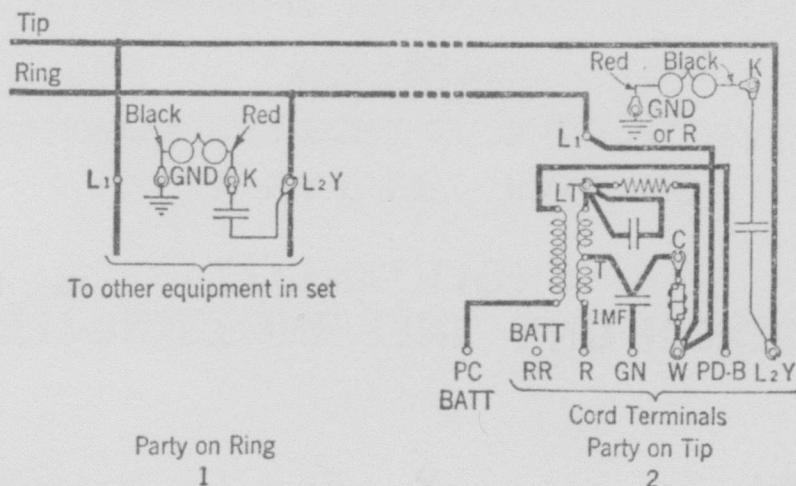


Fig. 2.

2.03 Four-Party Semi-Selective—Manual and Dial.

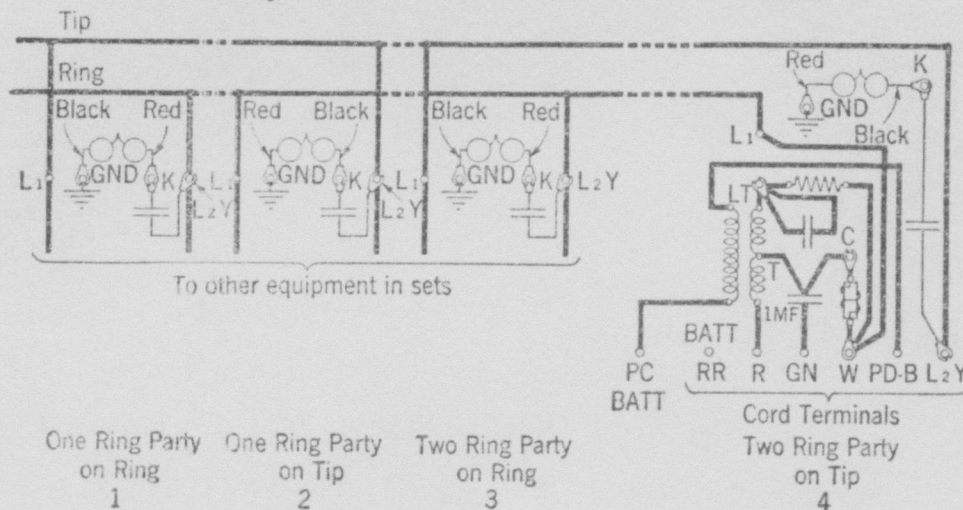


Fig. 3.

2.04 Divided Code Ringing—Manual and Dial. (See note)

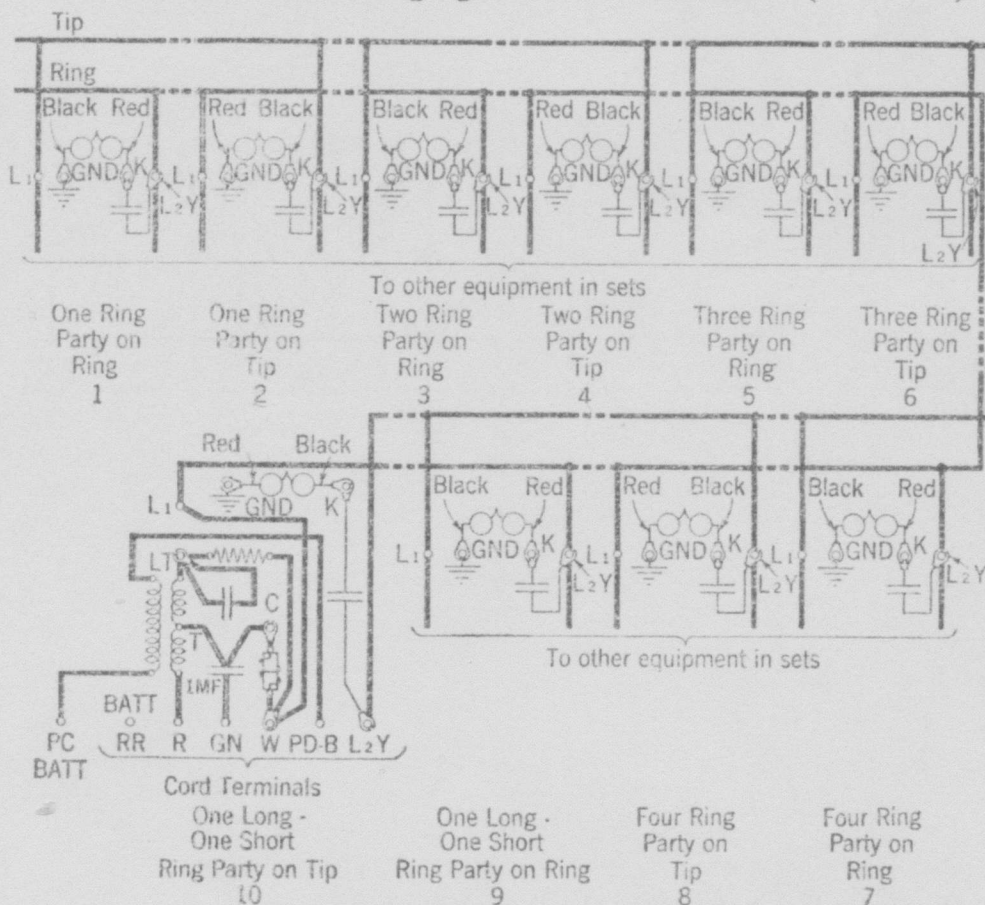


Fig. 4.

Note: The diagrams in Fig. 4 show divided code ringing on a terminal per line basis. If the central office is on a terminal per station basis, the corresponding stations will have the following rings:

Parties	Rings
1 and 2	2 short
3 and 4	3 short
5 and 6	4 short
7 and 8	1 long and 1 short
9 and 10	1 long and 2 short

The above code ringing also applies to some of the smaller community dial offices which are on a terminal per line basis, but have ringing codes on a terminal per station basis.

2.05 Non-Selective Party Stations—Manual

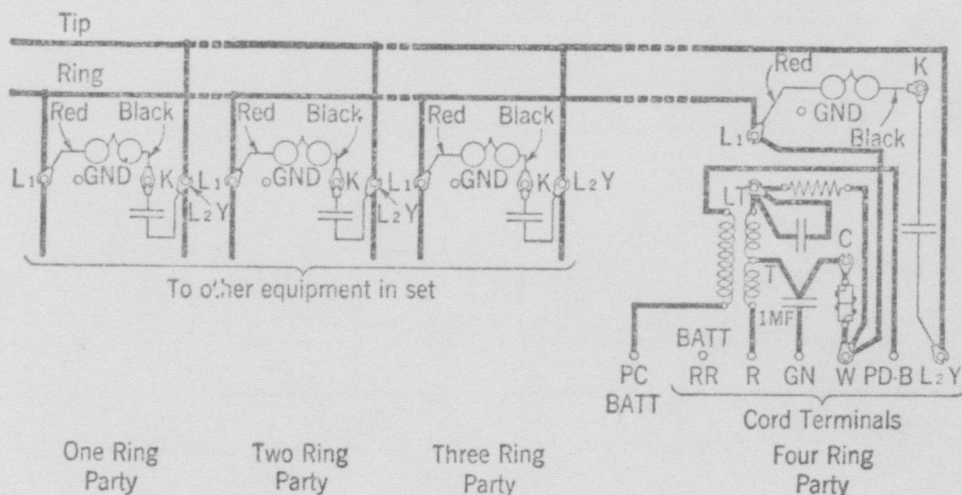


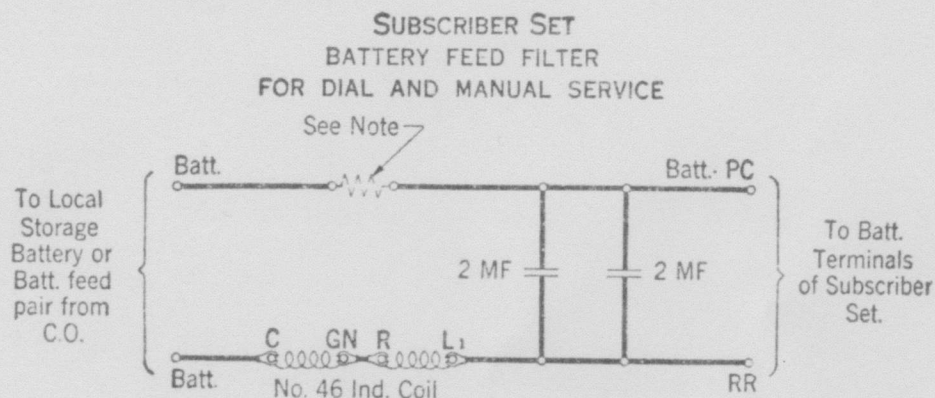
Fig. 5.

3. DRY CELL TRANSMITTER BATTERY

3.01 When dry cells are used for transmitter battery, connect 3 dry cells in series for wall sets or desk stands. Connect 4 dry cells in series where hand sets are used.

4. BATTERY FEED FILTER

4.01 Where a group of telephone sets of the type covered by this section receives the transmitter supply from a local storage battery or where battery feeder pairs are used, a filter is necessary in **each** transmitter circuit. This filter is coded as a subscriber set. Provision is made in this set to mount a resistance in cases where this is necessary in order to meet the requirement that the transmitter current be maintained at a value between 100 and 125 mils. When a resistance is necessary it will be specified in the order under which the installation is made. Figure 6 shows the connections for the battery feed filter.



Note: When required in order to adjust transmitter current to 100 - 125 Mils. install a resistance of the value specified on the service order. If Resistance is not required connect battery lead directly to "Batt. P.C."

Fig. 6.