SIDETONE LINE AND RINGER CONNECTIONS

COMMON BATTERY MAIN STATIONS

1. GENERAL

1.01 This section covers the main station connections for regular manual or dial common battery stations (not including local battery talking, common battery signaling stations) when 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 **Anti-Sidetone Subscriber Sets:** The diagrams show sidetone subscriber sets for all of the stations on party lines. However, anti-sidetone subscriber sets may be used at any of these stations provided, of course, they are connected according to anti-sidetone connections.

1.04 **High Impedance Ringers:** High impedance ringers have 3500ω or 6000ω resistances. Subscriber sets having these ringers are specified for certain stations subject to inductive noise and the connections for these sets are shown under the particular class of service for which they are used.

1.05 **High Impedance Relays:** When it is necessary for noise reasons to restrict the unbalance between two sides of a line, the excess of high impedance relays connected to ground on one side of the line should not be greater than three.

1.06 **Condenser Capacity Allowed:** Subscriber sets for non-polarized ringing lines (non-relay sets) may be equipped with 1 mf., 1.75 mf. or 2 mf. condensers in series with ringers of the A or AA types (low impedance) or .5 mf. condensers in series with J type ringers (high impedance). Subscriber sets for polarized ringing lines (relay sets) may be equipped with .5 or 1 mf. condensers for manual and dial service and 1 mf. condensers for manual service in series with a low voice frequency impedance 85 type relay or .5 mf. condensers in series

with an 85P relay (high voice frequency impedance). Condensers having a capacity in excess of 1 mf. are not satisfactory for use at certain stations. Where these exceptions apply they will be indicated in the figures showing the proper connections for the particular class of service affected.

Caution: Condensers in 2 mf. cans having a yellow stripe on the terminal and marked 1 mf. or 1.75 mf. should in all cases be considered as 2 mf. condensers. Condensers in 2 mf. cans having a red stripe are 1 mf. condensers

Also, while 2 mf. condensers may be permitted where there is only a main station, it should be understood that where extension stations or extension ringers are also provided the use of 2 mf. condensers is further restricted and the section covering "Sidetone Extension Station and Extension Ringer Connections" should be followed.

1.07 **Treatment of Existing Stations:** The line and ringer connections shown in this section represent improvements over those previously followed and should be used for all new installations and additions to existing installations or rearrangements. Where existing installations do not come up to the requirements outlined herein and are operating satisfactorily it is probable that no changes are required. However, when ringer or pulsing trouble is encountered, changes to make the stations agree with the latest practices should be made.

2. CONNECTIONS

2.01 **Individual Lines—Manual and Dial**
P.B.X. Stations—Regular Manual and Dial
No. 750A P.B.X. Keyless Stations—Dial

(Low impedance ringers)

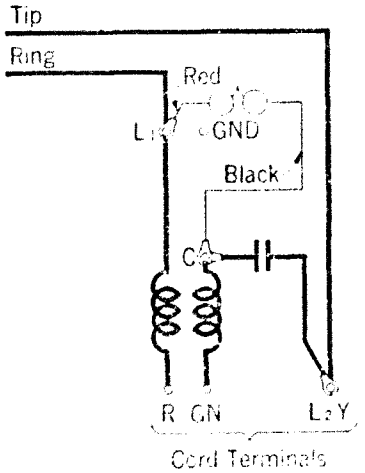

Fig. 1

Note: Do not use 2 mf. condensers at P.B.X. stations arranged for night service or through dial connections where there is an a.c. bridge in the P.B.X. circuit, or at No. 750A P.B.X. keyless stations.

2.02 **No. 750A P.B.X. Key and Control Stations—Dial.**

(Low impedance ringers)

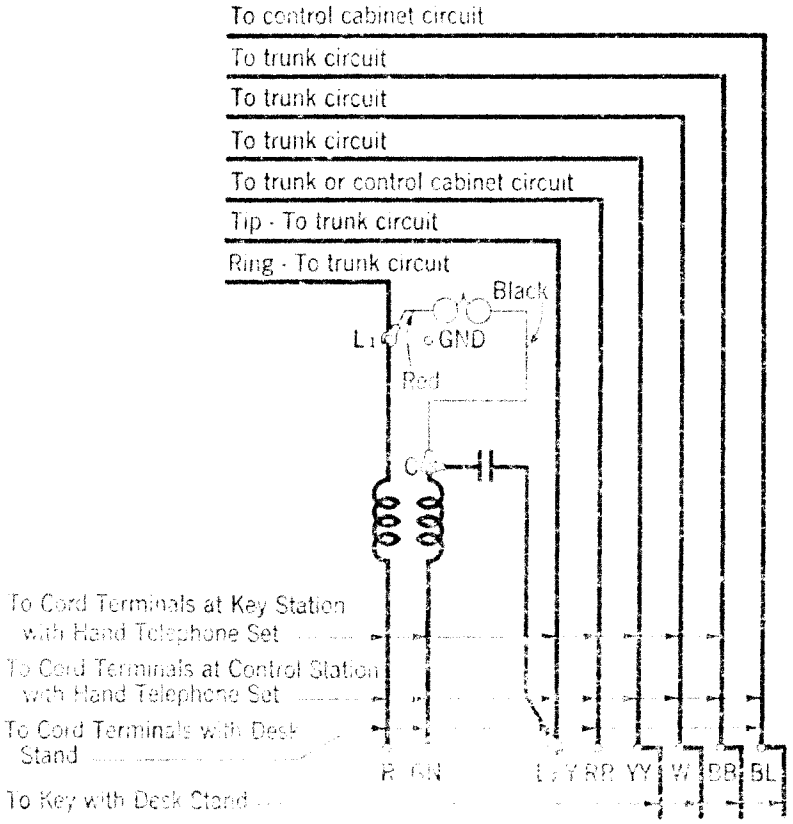

Fig. 2

2.03 **Two-Party Selective Flat Rate—Manual and Dial.**
Two-Party Selective Message Rate—Manual.
(Low impedance ringers)

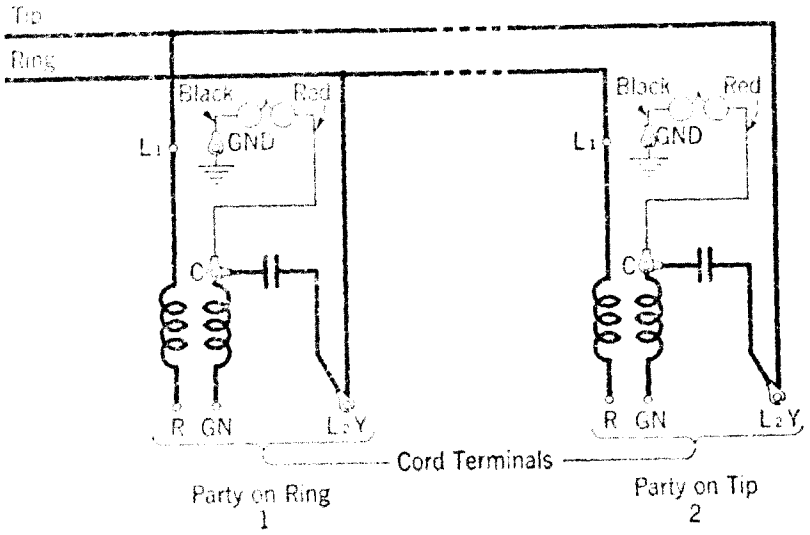

Fig. 3

(High impedance ringers)

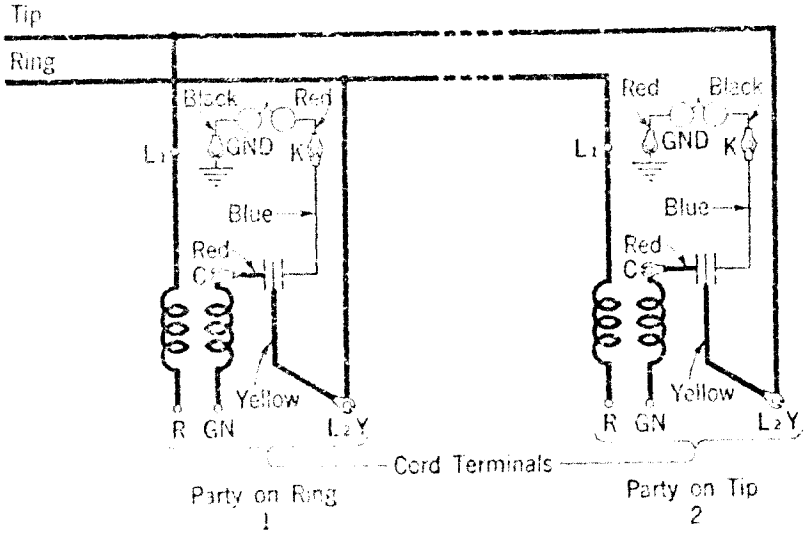

Fig. 4

2.04 Two-Party Selective Message Rate—Dial.

(Low impedance ringers)

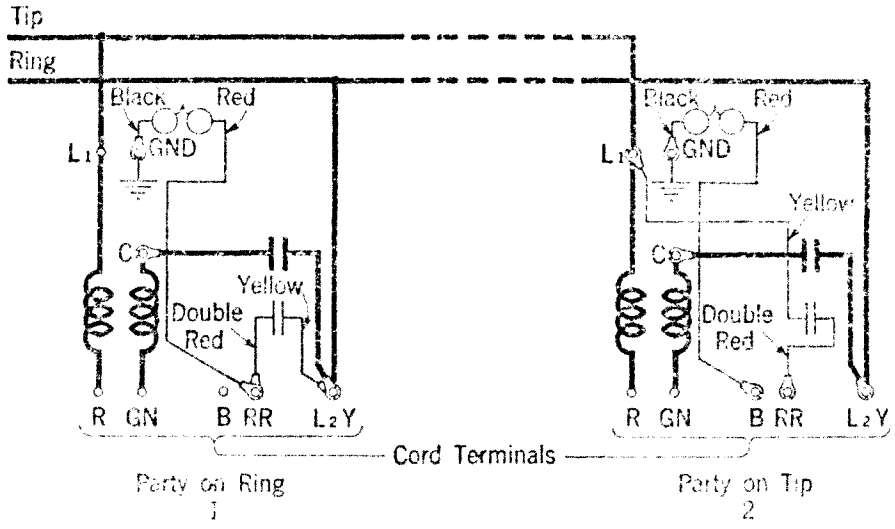

Fig. 5

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

(Low impedance ringers)

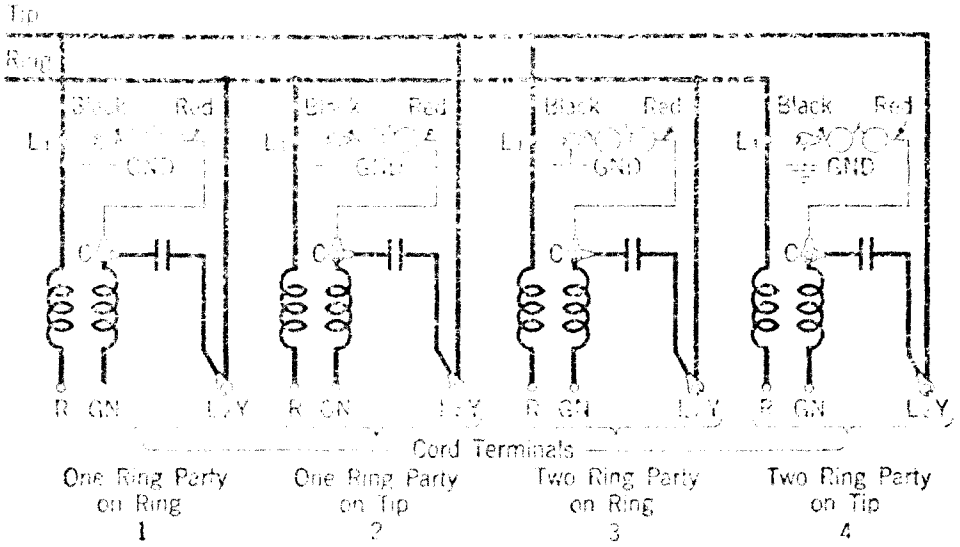

Fig. 6

Note: Do not use 2 mf. condensers.

(High impedance ringers)

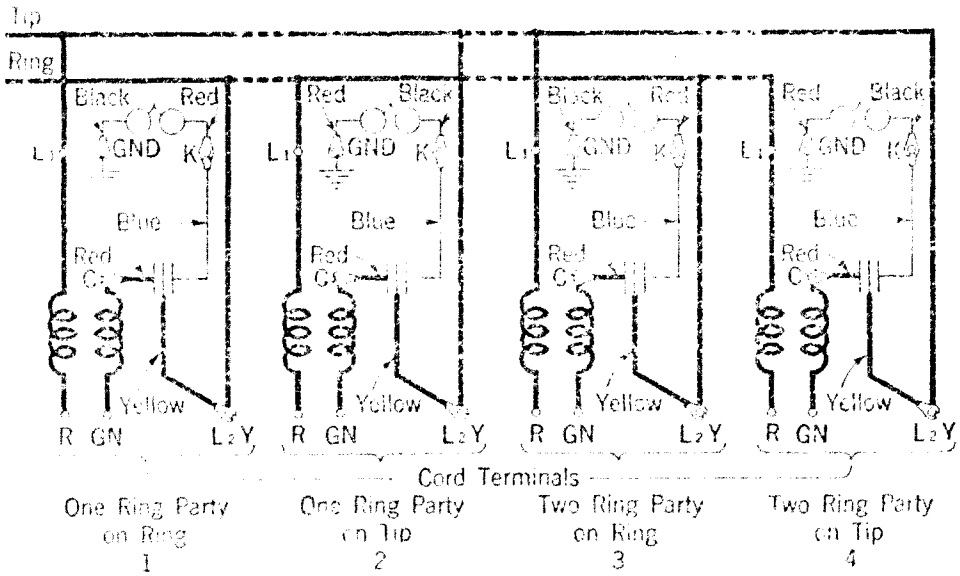

Fig 7

2.06 Four-Party Selective—Manual and Dial.

MANUAL STATIONS ONLY

(Low impedance ringers)

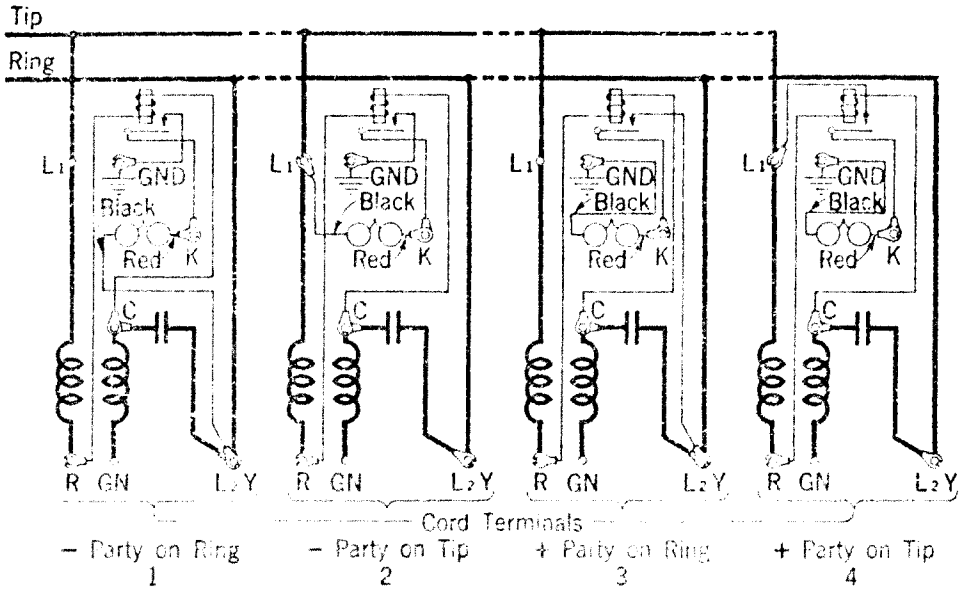

Fig. 8

Note: Do not use 2 mf. condensers.

DIAL OR MANUAL STATIONS

(Low impedance ringers)

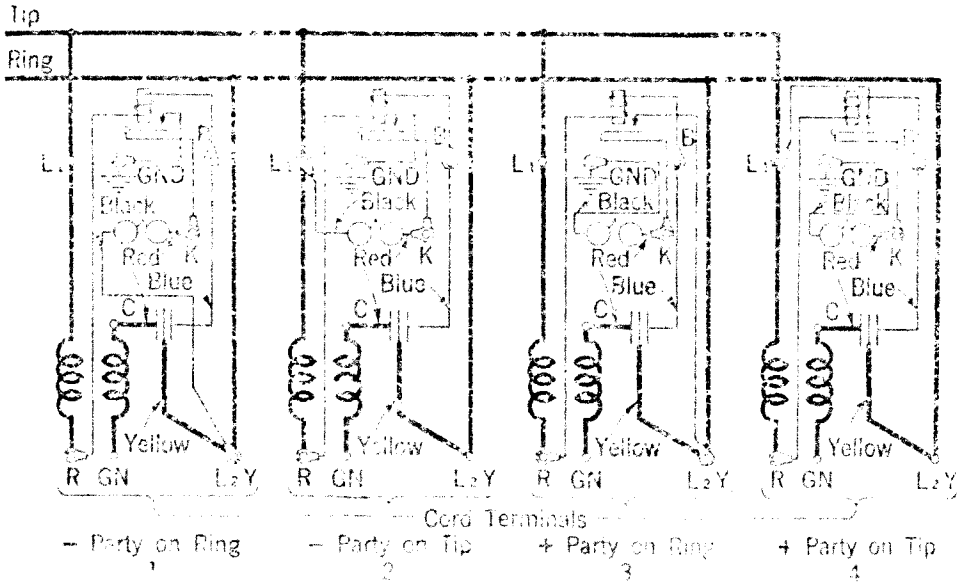

Fig. 9

207 Eight-Party—Semi-Selective—Manual and Dial.

(High impedance ringers)

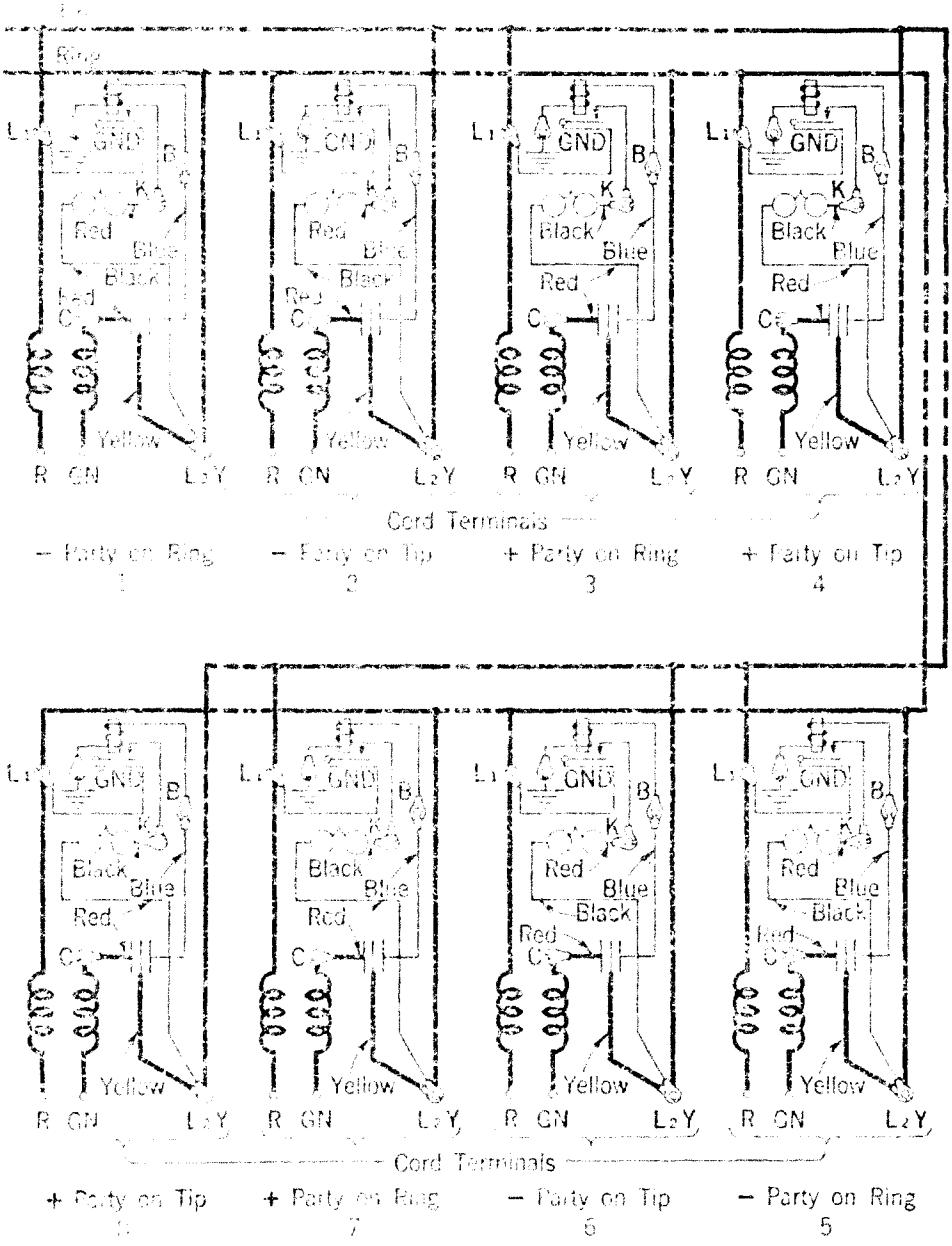

Fig. 10

Note: Parties 1, 2, 3 and 4 have one ring. Parties 5, 6, 7 and 8 have two rings.

2.08 **Divided Code Ringing—Manual and Dial.**

(Terminal per line basis shown)

(High impedance ringers)

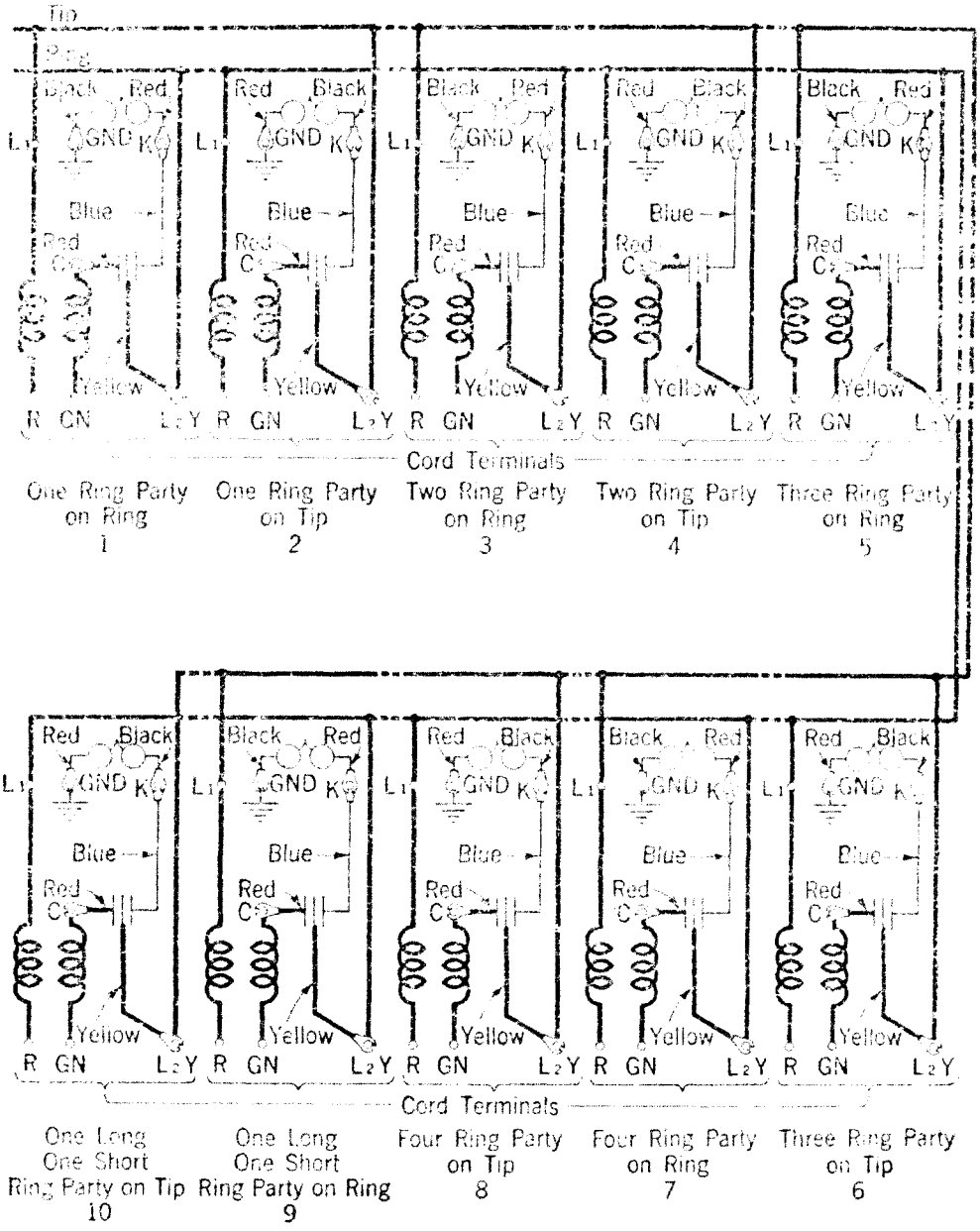

Fig. 11

Note: The above diagrams 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.

2.07 **Non-Selective Party Stations—Manual.**

(High impedance ringers)

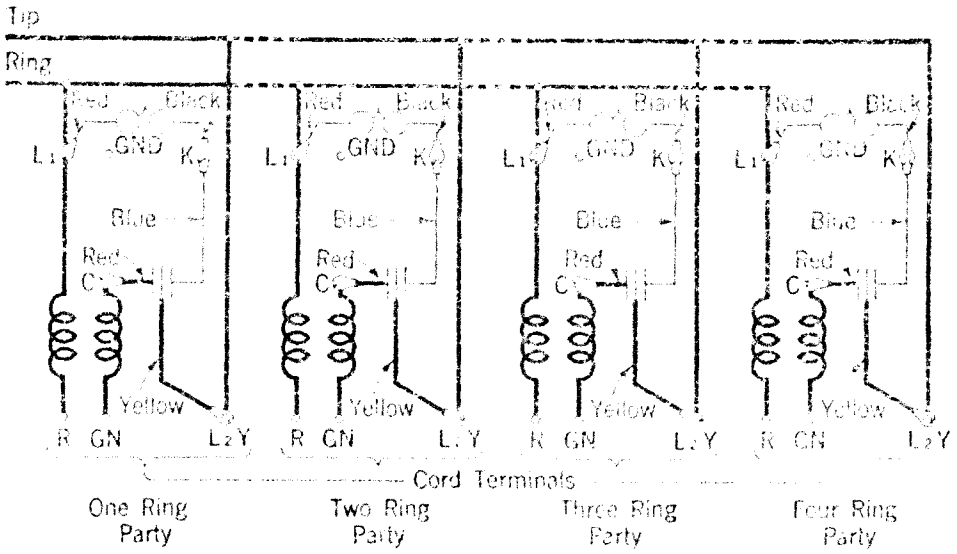

Fig. 12