

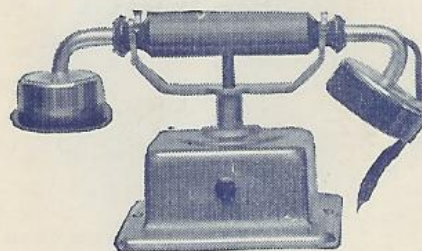
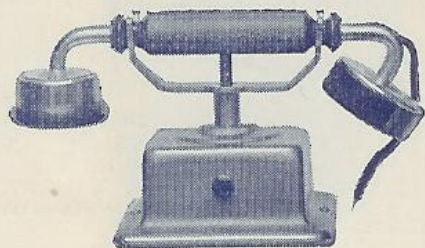
Instructions for Installing
Connecticut
Duplex Telephones

No. 38-W
WALL PHONE

No. 43-W
CRADLE PHONE



TRADE MARK



Manufactured by

Ⓜ **CONNECTICUT** TELEPHONE & ELECTRIC **CORPORATION** Ⓜ
MERIDEN CONNECTICUT

INSTRUCTION DATA

The Duplex Telephones are made up in two styles, Wall type and the portable French Cradle type. While designed for service between two neighboring points, three or four phones may be connected together on a line not exceeding one thousand feet and a code of rings used for calling the station wanted.

To install only two wires are required, connected from the "L" and "BL" terminals of one telephone to the "L" and "BL" terminals of the other.

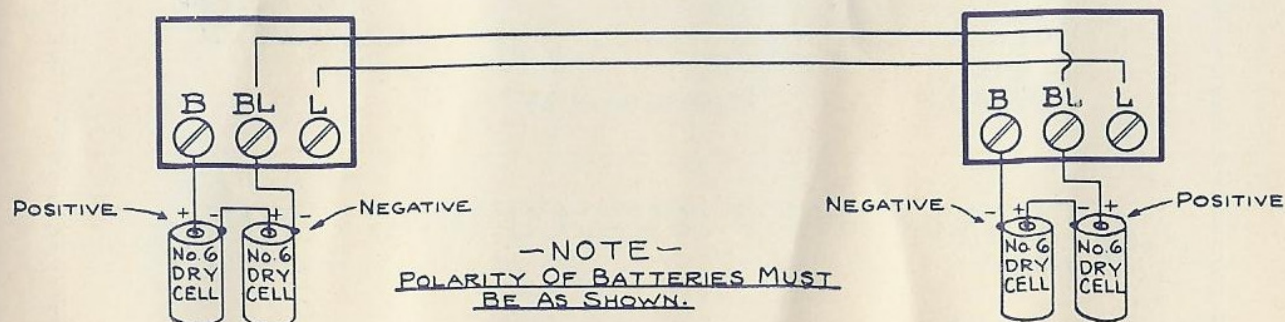
Two dry cell batteries at each phone are connected in series attached to the "B" and "BL" terminals. (See diagram, Fig. No. 1). It is important that the "B" terminal connect to the positive side of battery at one telephone and to the negative side of battery at the other telephone.

When three or four phones are connected be sure the "L" and "BL" line wire connects to its respective terminal on each phone. It is only necessary to have the polarity of the batteries different on the two end phones, as shown on Fig. No. 4.

Wall phones should be mounted proper height from floor to the center of mouthpiece so that the user can speak into same conveniently.

Wires should be run thru recessed opening at top and bottom of telephone case and firmly stapled to eliminate strain at terminals.

Fig. No. 1—Back View of Telephones Connected Together.



The Duplex Telephone is designed to operate on a line up to 1000 feet long and will give satisfactory service if the proper size copper wire and the correct number of batteries is used at each phone, as per table, Fig. No. 2.

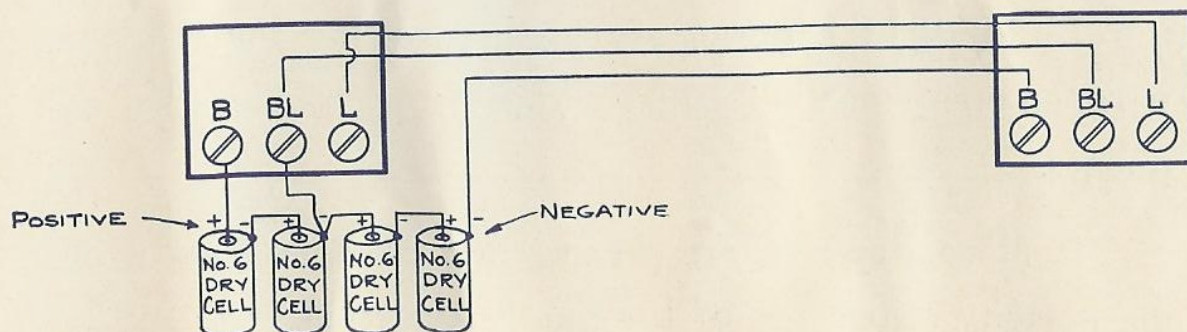
On installations where the distance is over 200 feet between phones, the larger size wire recommended is required to reduce drop in line voltage.

Figure No. 2

Distance between Telephones	200 ft.	750 ft.	1000 ft.
Size of Wire	19	18	16
Number of dry cell batteries at each telephone	2	2	3

If it is desired to have batteries located at a central point or at one end, run three wires as shown on diagram (Fig. No. 3) and connect both sets of batteries in series as shown.

Figure No. 3



DUPLEX FRENCH TYPE CRADLE PHONES

The French Type Cradle Phone will be found an instrument of many conveniences; as a temporary telephone or signal system between bedrooms and other sections of the home up to one hundred fifty feet or for permanent installations up to one thousand feet on two and four party line systems.

For temporary service two standard flashlight batteries (Eveready No. 950) should be installed inside the base of each phone and required length of twisted pair wire connected to the terminals "L" and "BL" as shown in Fig. No. 1. The wire may be run along the floor or under rug and the phone readily removed when not required.

For permanent installations, over one hundred fifty feet, standard dry cells (Eveready No. 6) would be connected as shown in diagram for two or four phone systems.

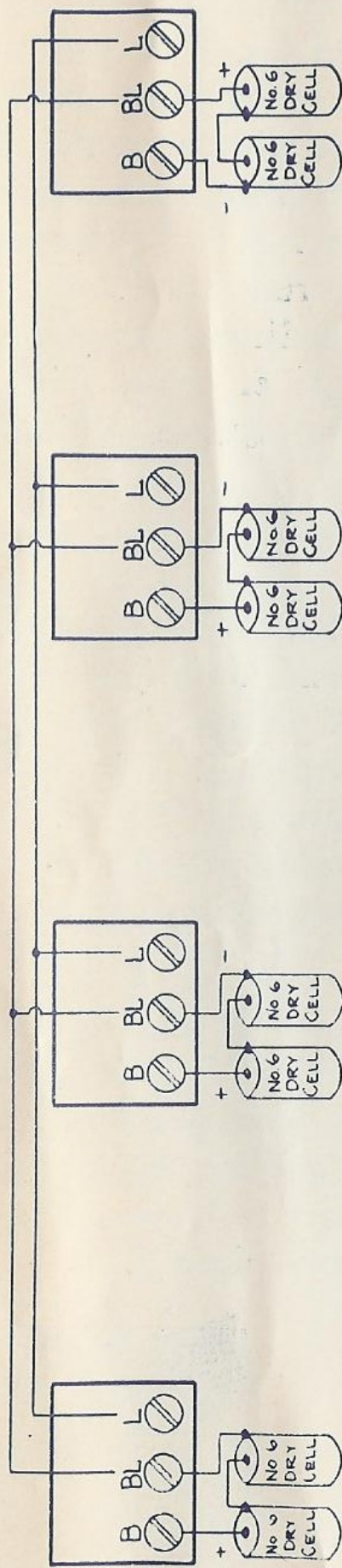
The Cradle type and Wall type phones may be connected together on the same system.

If phones do not operate satisfactorily when first connected, this, no doubt, will be due to improper connections on either line wires or batteries.

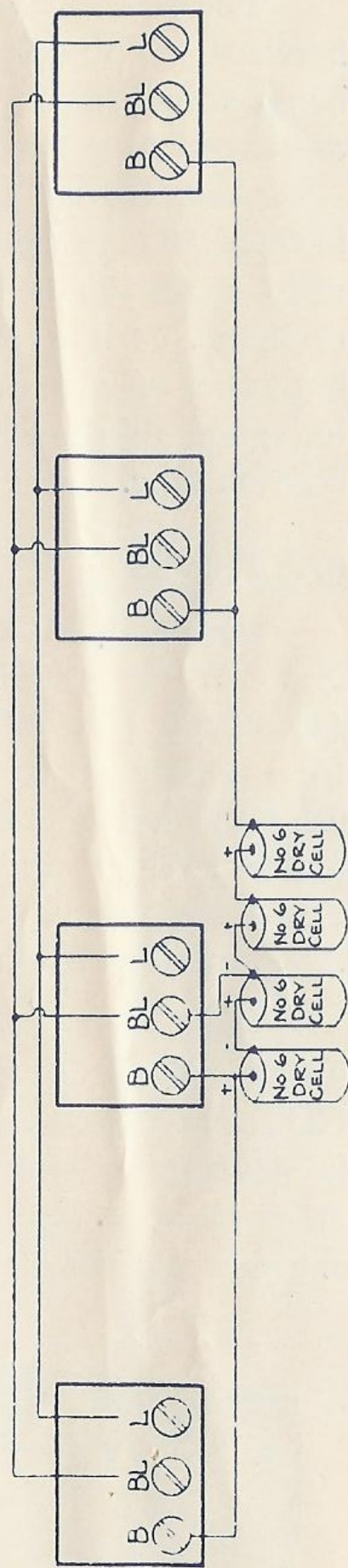
If flashlight batteries are used, reversing the two line wires on one phone will usually improve the efficiency of the phones.

If No. 6 dry cells are permanently connected, reversing the polarity at one end of the line is suggested.

Fig. No. 4—Showing method of connecting four phones with individual batteries and centralized batteries.



NOTE
POLARITY OF BATTERIES
MUST BE AS SHOWN



WIRE

The size of wire required is determined by the distance between telephones and whether used inside or run outside between buildings. For inside use we recommend double cotton-covered copper wire in accordance with table, Fig. No. 2—for outside, use twisted pair copper wire, rubber-covered, braided, in accordance with table, Fig. No. 2. Whenever possible, wires should be long enough to run direct from phone to phone. If it is necessary to add an additional length, scrape both ends of wire bright and twist together, solder joint making good solid connection and cover exposed section with friction tape.

BATTERIES

Use standard dry cell batteries of $1\frac{1}{2}$ volts each (Eveready No. 6), for external connections and flashlight batteries (Eveready No. 950), when mounted inside Cradle Phone. Be sure they test full voltage when connected. With ordinary use they should last between six months and a year. These phones will not operate from bell ringing transformer as this device supplies only alternating current and will transmit the A. C. hum over the line.

THE CONNECTICUT TELEPHONE & ELECTRIC CORPORATION of MERIDEN, CONNECTICUT, has a background of over thirty-seven years' experience in developing and manufacturing signaling equipment for all kinds of service. All its products are fully guaranteed for one year against electrical or mechanical defects.

