

STROMBERG CARLSON NO. 1543 TYPE TELEPHONES

## 1. GENERAL

1.01 This Section covers the description, use and connections of the Stromberg Carlson No. 1543 Type Telephones.

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### 1.03 No. 1543 Telephone

The No. 1543 Type Telephone is a common battery, anti-sidetone, combined desk telephone arranged for manual or dial service. When equipped with the proper ringer assembly and the ringing circuit connected as specified for each of the following classes of service, the No. 1543 Type Telephone may be used at stations on common battery Individual Lines, P.B.X. Extensions, Two Party and Four Party Lines in harmonic and superimposed ringing areas, on Eight Party Selective Lines in harmonic ringing areas and on ~~Eight Party Semi-Selective Lines in superimposed ringing dial areas.~~ The No. 1543 Type Telephone may also be used at stations on common battery code ringing lines and in connection with wiring plans where special wired sets are not required.

### 1.04 No. 1543W Telephone

The No. 1543W Telephone is a common battery anti-sidetone telephone designed to increase transmitting and receiving efficiencies. It is arranged for manual or dial service. The telephone is available in black, gray, green, ivory, red, yellow, blue, brown and beige.

## SECTION C31.120.2

The black No. 1543W Telephone is intended for use at common battery, manual or dial stations served by foreign exchange service and to correct transmission complaints at locations where transmission is substandard due to the length of the circuit.

Colored No. 1543W Telephones are intended for use at manual and dial stations in city and suburban common battery central office areas when a colored telephone is specified.

### 1.05 No. TC1543 Telephone

The No. TC1543 Telephone is designed for use at stations in noisy locations. This telephone is installed only when specified by the Commercial Department. Commercial Orders Code PTL has been adopted to indicate when the No. TC1543 Telephone is required.

1.06 Installation of the No. 1543 Type Telephones shall be in accordance with instructions in the sections in Division C30 of the Standard Practices covering the locating and mounting of hand telephone sets and the installation of connecting blocks.

## 2. DESCRIPTION

2.01 Exterior view of the No. 1543 Type Telephone is shown on Page 1.

### No. 1543 Telephone

2.02 The No. 1543 Telephone consists of a handset, housing and base assembly.

2.03 The handset, coded No. 26A, is designed to place the transmitter closer to the user's mouth and thus improve transmission. The handset harmonizes with the style of the housing. The No. 26A is equipped with a No. 211232 handle, No. 210279 transmitter, No. 210278 receiver, No. 210277 transmitter cap, No. 210276 receiver cap and three conductor cord. Part numbers are molded on the rims of the transmitter and receiver caps.

2.04 The housing is a molded, black plastic shell, rectangular in shape, with the dial opening in the sloping front section. Two openings for the handset plungers are located in the top. A metal clip attaches the front of the housing to a lug in the base; the back of the housing is then drawn down and locked to the base by a taper-headed screw. The housing serves as a cover for the base assembly.

2.05 The base assembly consists of a metal base plate on which are mounted the coil and capacitor assembly, ringer, gongs and switch spring and cradle assembly. Provisions are made for mounting a W.E. Vacuum Tube. The base plate is equipped with four rubber cushions.

2.06 The coil and capacitor assembly, coded No. 210558, consists of a plastic case containing the induction coil network and the 2 mf condenser for the receiver circuit. Screw terminals on the outside of the plastic case are provided for connecting the line and handset cords, and the switch spring, dial and ringer leads to the interior wiring of the assembly.

Note: The No. 210558 coil and capacitor assembly is not equipped with condensers for the ringer circuit, therefore, it cannot be used as a replacement for the No. 208359 coil and capacitor assembly used in the No. 1443 Type Telephones.

2.09 The ringer, coded No. 73 for harmonic and No. 74 for biased, is a single coil ringer and has a cylinder type condenser of required capacity mounted on the frame. Colors of



condenser designate the capacity. The gongs are separate from the ringer and are mounted on a bracket on the base plate.

2.08 A metal angle bracket fastened to the base plate provides mounting space for the switch spring and handset cradle assembly and No. 333A Vacuum Tube. The dial mounting bracket hooks onto the shaft of the switch spring operating arm and fastens to the base plate by means of a spring clip. In No. 1543 dial telephones the dial is fastened to this bracket by means of two screws. In No. 1543 Telephones of the manual type, a No. 208137 Dial Blank Assembly fits into the opening in a No. 208122 Adapter and both are fastened to the bracket by two screws.

2.09 The dial is equipped with a large black number plate having white letters and numerals arranged outside the circumference of the finger wheel.

2.10 The No. 1543 Desk Telephone is equipped with a three conductor, black, moisture-proof line cord.

#### No. 1543W Telephone

2.11 The No. 1543W Telephone consists of a base assembly, housing and No. 27 type handset. The base assembly consists of a metal baseplate on which are mounted the No. 210640 coil and capacitor assembly, switchhook assembly, dial or dial blank assembly and apparatus for the ringer circuit. The housing, switchhook plungers, extended number plate, handset handle and caps are all molded from plastic of one of the standard colors.

2.12 The black No. 1543W Telephone is equipped with a No. 27C handset, a WCR-3K non-retractile handset cord, a WDR-3J line cord and CE-212 dial with black finger wheel. Replacement part numbers are: 207752 housing, 211121 desk type plunger, 210288 handset handle, 210284 mouthpiece and No. 210283 receiver cap.

2.13 Colored No. 1543W Telephones are equipped with a DE-3 type dial. The line cord and retractile handset cord are jacketed with neoprene of matching color. Replacement part numbers for colored telephones are covered in Section C30.011.2.

2.14 The No. 27 Type handset is equipped with a No. 210287 or W.E. T1 transmitter and No. 210285 or W.E. U1 receiver.

2.15 Ringer circuit apparatus, consisting of ringer and capacitor or vacuum tube, is the same as in the No. 1543 Type Telephones.

#### No. TC1543 Telephone

2.16 The No. TC1543 Telephone is a common battery, anti-sidetone telephone equipped with a handset having a transmitter cutout button mounted in the handle. This telephone consists of a standard No. 1543 Telephone equipped with a No. 28 handset and No. 209948 varistor.

2.17 The No. 28 handset consists of a No. 212441 handle equipped with a No. 212434 switch assembly, No. 210279 transmitter, No. 210278 receiver, No. 210277 mouthpiece, No. 210276 receiver cap and a three conductor neoprene jacketed, non-retractile cord.

### 3. CODES OF No. 1543 TELEPHONES - CLASS OF SERVICE

3.01 Code designations for No. 1543 Telephones are stencilled on the underside of the base plate. The ringer frequency is stamped on the frame of the ringer.

SECTION C31.120.2

3.02 The following code designations are for No. 1543 Telephones of the manual type. When disbursing, recovering and requisitioning No. 1543 Telephones equipped with dials, add the phrase "with dial" to the code designation.

1543 Individual or Party Line stations without ringer.  
1543W

Ringer connections for the following telephones shall be in accordance with the sections in Division C60 of the Standard Practices covering ringer connection limitations.

1543A Equipped with a No. 74A high impedance biased ringer and associated 0.47 mf  
1543WA condenser. Condenser color code: yellow-violet-yellow-white-red.

With the ringer circuit bridged across the line, this telephone is intended for use at stations on Individual Lines, P.B.X. Extensions, common battery code ringing lines and in connection with wiring plans not requiring special wired sets.

With the ringer circuit wired from one side of the line to ground, this telephone is intended for use at stations on Two Party Lines in superimposed ringing Dial Central Office areas.

1543E Equipped with a No. 73E - 16 2/3 cycle harmonic ringer and associated con-  
1543WE densers having 0.94 mf total capacity. Color code of each condenser: Yellow-violet-yellow-white-red.

1543F Equipped with a No. 73F - 33 1/3 cycle harmonic ringer and 0.22 mf condenser.  
1543WF Condenser color code: Red-red-yellow-white-yellow.

1543G Equipped with a No. 73G - 50 cycle harmonic ringer and 0.15 mf condenser.  
1543WG Condenser color code: Brown-green-yellow-white-yellow.

1543H Equipped with a No. 73H - 66 2/3 cycle harmonic ringer and 0.15 mf condenser.  
1543WH Condenser color code: Brown-green-yellow-white-yellow.

1543N Equipped with a No. 73N - 25 cycle harmonic ringer and 0.47 mf condenser.  
1543WN Condenser color code: Yellow-violet-yellow-white-red.

1543E,F,G, With ringer circuit bridged across the line, these telephones are intended  
H,N for use at stations on Two and Four Party Lines in harmonic ringing Central  
1543WE, F, Office areas.  
G,H,N

With ringer circuit connected from one side of the line to ground, these telephones are for use at stations on Eight Party Selective Lines, harmonic ringing to ground.

1543BT Equipped with a No. 71B low impedance biased ringer and a W.E. No. 333A  
1543WBT or No. 426A vacuum tube.

For use at stations on Four Party Selective and Eight Party Semi-Selective Lines in superimposed ringing Dial Central Office areas and on Two and Four Party Selective Lines in superimposed ringing Manual Central Office areas.

1543AV Equipped with a No. 74A high impedance biased ringer, RTC No. 2 Rare Gas  
1543WAV Relay and 0.47 mf condenser. The ringer, relay and condenser are connected in series and bridged across the line. Condenser color code: Yellow-violet-yellow-white-red.

For use at stations in connection with Special Wiring Plan 4501.234 where a minimum of four sets with ringer and a maximum of twenty sets with ringer are connected to one trunk for night service.



3.02 The code numbers designating the ringer circuit in the TC1543 Telephones and the classes of service on which they may be used correspond with those of the No. 1543 Telephone.

#### 4. WIRING AND CONNECTIONS

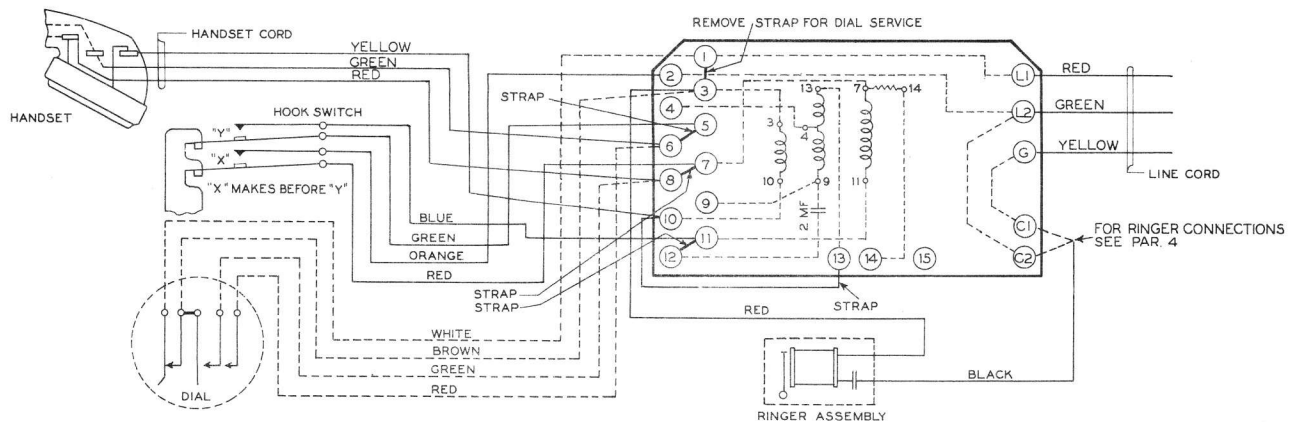


FIG. 2 WIRING AND CONNECTIONS FOR NO. 1543 TELEPHONES

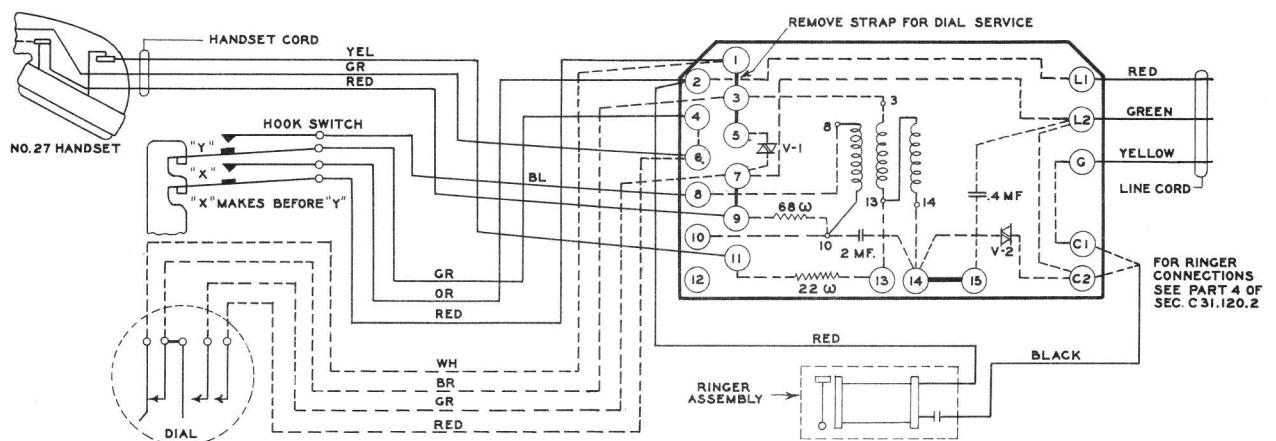


FIG. 3 WIRING AND CONNECTIONS FOR NO. 1543W TELEPHONES.

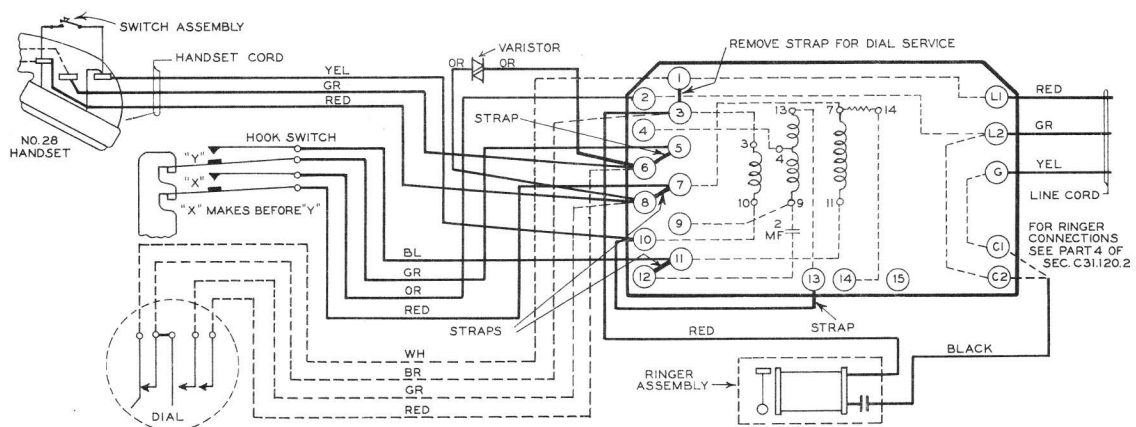


FIG. 4 WIRING AND CONNECTIONS FOR NO. TC1543 TELEPHONES

## SECTION C31.120.2

4.01 Terminate the conductors of the line cord as follows: At stations having ringer circuit bridged across the line, terminate red conductor of line cord at "R" terminal of connecting block and terminate the yellow conductor of the line cord with the green conductor of the line cord at "G" terminal of the connecting block.

At stations having the ringer circuit wired from one side of the line to ground, terminate red conductor of line cord at "R" terminal of connecting block, green conductor of the line cord at "G" terminal of the connecting block and yellow conductor of the line cord at "Y" terminal of the connecting block.

4.02 Connect the red conductor of the line cord at the Ring side of the line and the green conductor of the line cord to the Tip side of the line at the connecting block in all cases. Reversals of the red and green conductors of the line cord, when required for party line ringing to ground, shall be made in the set.

4.03 Terminate handset cord, hookswitch and dial leads above straps at screw terminals on the coil and capacitor assembly.

4.04 Use cabinet screwdriver when making connections in sets to prevent injury to the barriers between the screw terminals.

4.05 Store the excess slack in the ringer or tube leads in the space between the ringer coil and the coil and capacitor assembly.

### 4.06 LINE CORD CONNECTIONS - BRIDGED RINGING

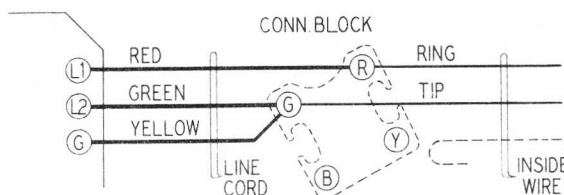


Fig. 5 LINE CORD CONNECTIONS FOR STATIONS ON INDIVIDUAL LINES, P.B.X. EXTENSION LINES AND COMMON BATTERY CODE RINGING LINES. ALSO FOR STATIONS ON TWO AND FOUR PARTY LINES - HARMONIC RINGING.

### 4.07 LINE CORD CONNECTIONS - GROUNDED RINGING.

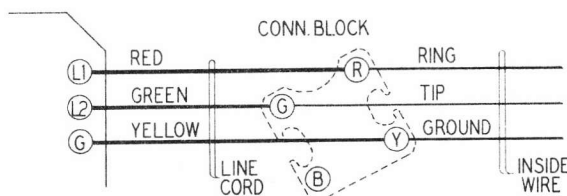


Fig. 6 LINE CORD CONNECTIONS FOR STATIONS ON TWO AND FOUR PARTY SELECTIVE AND EIGHT PARTY SEMI-SELECTIVE LINES - SUPERIMPOSED RINGING. ALSO FOR STATIONS ON EIGHT PARTY SELECTIVE LINES - HARMONIC RINGING TO GROUND.

Line reversals required for party line ringing connections shall be made by reversing the ring and tip conductors of the line cord at L1 and L2 terminals of the coil and capacitor assembly.



## 4.08 RINGER ASSEMBLY CONNECTIONS - BRIDGED RINGING.

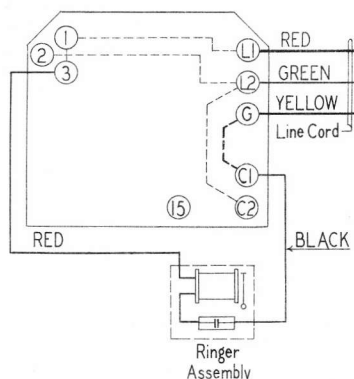


Fig. 7

Ringer Assembly connections shown in Fig. 7 are for the No. 1543 Type Telephones and their associated classes of service listed below.

In all No. 1543 and No. 1543W Telephones, except No. 1543BT and No. 1543WBT, received from the manufacturer after April 15, 1955, the black ringer lead is connected to the C1 terminal instead of the C2 terminal of the coil and capacitor assembly.

This change in the ringer connection necessitates strict adherence to the practice of terminating the yellow conductor of the line cord with the green conductor of the line cord at the "G" terminal of the connecting block in all cases where a No. 1543 or No. 1543W type desk telephone is used in connection with bridged ringing.

1543A At stations on Individual Lines, P.B.X. Extensions and Common Battery Code Ringing Lines.

Superimposed Ringing Combinations

Individual Lines: 01 and 10

Suburban Dial Exchanges - Harmonic Ringing

Individual Lines: Last digit of line number: 1 or 6

1543 E,F,G,H,N At stations on Two Party and Four Party Lines in harmonic ringing Central Office areas.

Central Office

Party Designation  
Two and Four Party Line

Manual	M
1543E-Subn. Dial-Last Digit	5 or 0
BAKER 5 - HAMILTON 6	Freq. 16 2/3 cycles
Manual	W
1543F-Subn. Dial-Last Digit	1 or 6
BAKER 5 - HAMILTON 6	Freq. 33 1/3 cycles
Manual	R
1543G-Subn. Dial-Last Digit	2 or 7
BAKER 5 - HAMILTON 6	Freq. 50 cycles
Manual	J
1543H-Subn. Dial-Last Digit	3 or 8
BAKER 5 - HAMILTON 6	Freq. 66 2/3 cycles
Manual	N
1543N-Subn. Dial-Last Digit	4 or 9

1543AV At stations in connection with Special Wiring Plan 4501.234

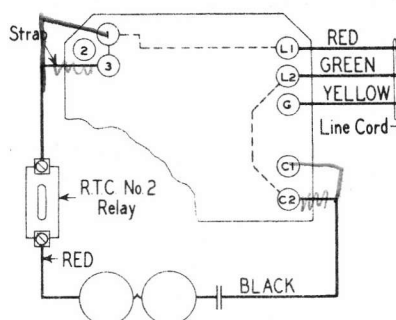


Fig. 8 Ringer and Relay Connections for No. 1543AV Telephone

## 4.09 RINGER ASSEMBLY CONNECTIONS - GROUNDED RINGING

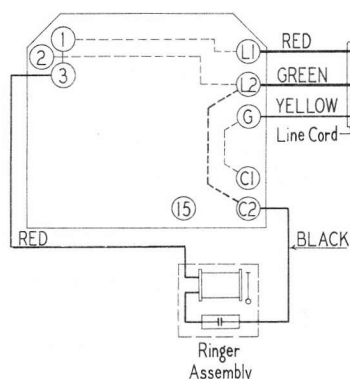


Fig. 9

Ringer Assembly connections shown in Fig. 9 are for the No. 1543 Type Telephones used at stations on Two Party Lines in superimposed ringing Dial Central Office areas and on Eight Party Selective Lines, harmonic ringing to ground. The No. 1543 Type Telephones and their associated classes of service are listed below. Connections shown are for parties on Ring side of line. For parties on Tip side of line, reverse Red and Green conductors of line cord at L1 and L2 terminals of coil and capacitor assembly.

1543A At stations on Two Party Lines in superimposed ringing Dial Central Office areas.

## Superimposed Ringing Combinations

Two Party Lines: 01 1st Party - on Ring  
11 2nd Party - on Tip

1543 E,F,G,H,N At stations on Eight Party Selective Lines - harmonic ringing to ground.

Code No. of Set	Central Office	8 Party Designation	
		Even No. Ring Side	Odd No. Tip Side
1543E	Manual	M	M
	Subn. Dial-Last Digit	5	0
1543F	Manual	W	W
	Subn. Dial-Last Digit	1	6
1543G	Manual	R	R
	Subn. Dial-Last Digit	2	7
1543H	Manual	J	J
	Subn. Dial-Last Digit	3	8
1543N	Manual	N	N
	Subn. Dial-Last Digit	4	9



#### 4.10 RINGER AND VACUUM TUBE CONNECTIONS - GROUNDED RINGING. FOR PARTY LINE STATIONS IN SUPERIMPOSED RINGING CENTRAL OFFICE AREAS.

Manual Areas: Stations on Two and Four Party Selective Lines.

Dial Areas: Stations on Four Party Selective and Eight Party Semi-Selective Lines.

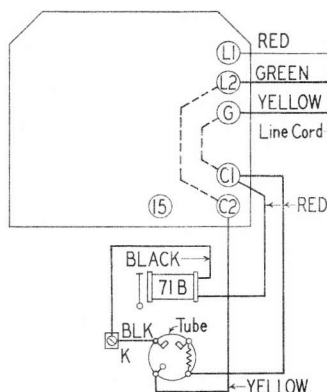


Fig. 10

Connections shown in Fig. 10 are for No. 1543BT Telephone with ringer circuit wired for - party on tip side of line. For - parties on ring side of line, reverse red and green conductors of line cord at L1 and L2 terminals of coil and capacitor assembly.

#### Manual Central Office Party Designations

##### - Parties

##### Two Party Line Stations

- R First Party - on Ring
- M Second Party - on Tip

##### Temporary Designation for Two Party Line Stations:

- W + on Ring, J + on Tip. (See Fig. 11)

##### Four Party Line Stations

- R First Party - on Ring
- M Second Party - on Tip

#### Dial Central Office Ringing Combinations

##### - Parties

##### Four Party Line Stations

- 01 First Party - on Ring
- 11 Second Party - on Tip

##### Eight Party Stations

- 01 First Party Answers One Ring - on Ring
- 11 Second Party Answers One Ring - on Tip
- 02 Fifth Party Answers Two Rings - on Ring
- 12 Sixth Party Answers Two Rings - on Tip

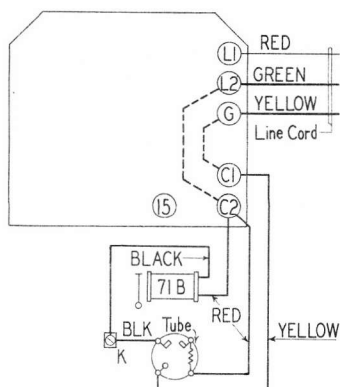


Fig. 11

Connections shown in Fig. 11 are for No. 1543BT Telephone with ringer circuit wired for + party on tip side of line. For + parties on ring side of line, reverse red and green conductors of line cord at L1 and L2 terminals of coil and capacitor assembly.

### Manual Central Office Party Designations

#### Two Party Line Stations (Temporary)

W + on Ring  
J + on Tip

#### Four Party Line Stations

W Third Party + on Ring  
J Fourth Party + on Tip

### Dial Central Office Ringing Combinations

#### Four Party Line Stations

06 Third Party + on Ring  
07 Fourth Party + on Tip

#### Eight Party Line Stations

06	Third Party	- Answers One Ring	+ on Ring
07	Fourth Party	- Answers One Ring	+ on Tip
03 or 08	Seventh Party	- Answers Two Rings	+ on Ring
13 or 09	Eighth Party	- Answers Two Rings	+ on Tip

### 5. MOUNTING W.E. VACUUM TUBES AND RARE GAS RELAY

5.01 W.E. No. 333A Vacuum Tube: A No. 208559 Package Assembly consisting of a "K" terminal block, strap wire and two terminal block mounting screws, is required when installing a W.E. No. 333A Vacuum Tube in a No. 1543 Telephone.

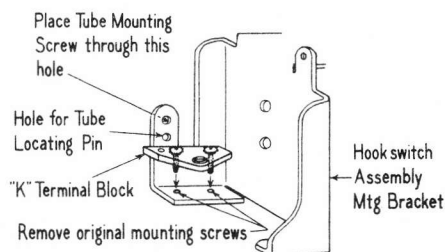


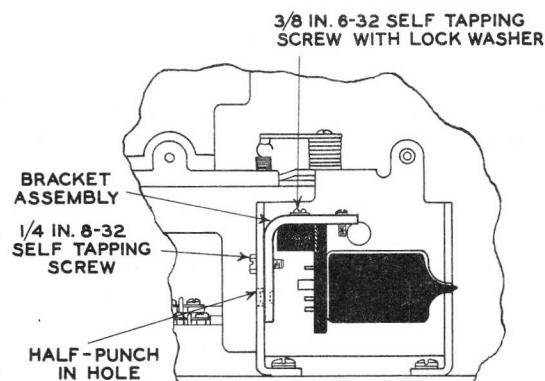
Fig. 12



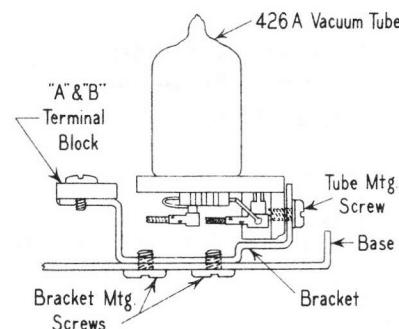
5.02 Remove the two mounting screws from the hookswitch mounting bracket as indicated in Fig. 12. Position the "K" terminal block on the bracket so that the screw holes in the terminal block line up with those in the bracket and base. Using the two screws supplied in the package assembly, fasten the "K" terminal block and assembly mounting bracket to the base plate.

5.03 With the locating pin on the tube engaging the hole in the bracket - see Fig. 12, secure the tube to the bracket by means of the tube mounting screw placed through the hole indicated in Fig. 12.

5.04 W.E. No. 426A Vacuum Tube: A No. 214159 Package Assembly is required when installing a W.E. No. 426A Vacuum Tube in a No. 1543 Telephone. Method of installing tube is shown in Fig. 13A.



A



B

Fig. 13

5.05 The No. 208560 Package Assembly was used to mount the No. 426A tube in 1543 type telephones of early manufacture. Fasten the bracket to the base plate and mount tube on bracket as shown in Fig. 13B. For ringer and tube connections see Paragraph 4.10.

5.06 R.T.C. No. 2 Rare Gas Relay: The spring clip portion of a No. 50072-2 Tube Bracket is used for mounting the rare gas relay. After the base section of the tube bracket has been removed, attach the spring clip to the hookswitch assembly mounting bracket by means of the mounting screw placed through one of the holes in the center section of the hookswitch assembly mounting bracket. Insulate the mounting bracket for the 333A Vacuum Tube with plastic tubing to prevent contact between the rare gas relay and the bracket. See Fig. 14.

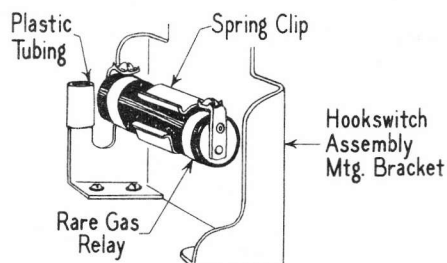


Fig. 14

## 6. SWITCH SPRING AND HANDSET CRADLE ASSEMBLY

6.01 The switch spring and handset cradle assembly are illustrated in Fig. 15. A removable transparent plastic cover not shown in the illustration, fits over the switch spring assembly. Each contact spring is equipped with double contacts.

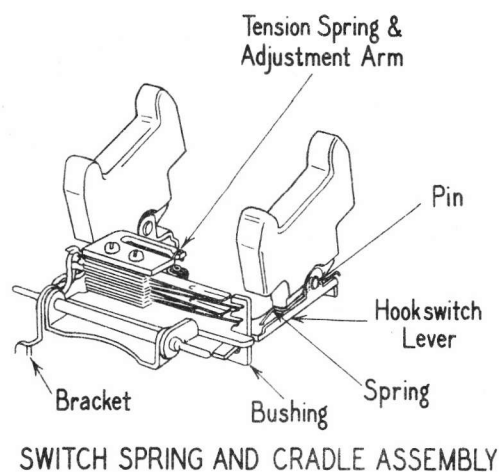


Fig. 15

6.02 SWITCH SPRING ADJUSTMENTS. The two switch spring combinations are designed "X" and "Y". In operating, "X", the lower combination, makes contact before "Y", the upper combination.

6.03 Position of the springs when the handset is on the cradle is shown in Fig. 16. Note that the springs are approximately parallel having a gradual bow and no sharp bends. Clearance between contact points is approximately .060 inch.

Position of Switch Springs  
Handset on Cradle

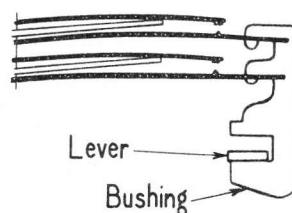


Fig. 16

6.04 Fig. 17 shows the switch springs in the operated position. The short contact springs should be approximately straight and parallel. The long contact springs should be approximately parallel and have a gradual bow. Check contact points; the bar contacts on the lower spring of the combination should engage the contact discs of the upper spring simultaneously. Each bar contact should meet its opposing contact within the circumference of the disc. With the springs properly adjusted a slight contact follow is perceptible to the eye. Note that there is clearance between fiber bushing and hook-switch lever, also between fiber bushing and long contact spring of the "X" spring combination, see Fig. 17.

Position of Switch Springs  
Handset off Cradle

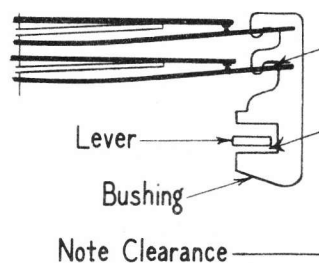


Fig. 17



6.05 HOOK SWITCH LEVER TENSION SPRING ADJUSTMENT. Tension spring and adjustment arm are shown in Fig. 15. To increase tension, bend adjustment arm upward; to decrease tension, bend arm downward. To check spring tension, remove plastic housing from telephone and place handset on cradle; hookswitch lever should rest either on shoulder of mounting bracket or on case of coil and capacitor assembly. With handset off cradle, hookswitch lever should contact lever stop located on bracket directly below tension spring adjustment arm. To increase or decrease upward travel of hookswitch lever, bend lever stop up or down.

#### 6.06 REPLACING HANDSET CRADLE PLUNGERS

No. 1543 Desk Telephones of early manufacture are equipped with No. 207671 Plungers which straddle the retaining spring. Later models are equipped with No. 211121 plungers; the retaining spring is offset and lies along the side of the plunger. When it is necessary to replace plungers, No. 211121 plungers shall be used. Parts required to replace plunger are contained in No. 211444 Package Assembly.

To remove plunger, depress the retaining spring and push out the pin.

When replacing No. 207671 plungers with No. 211121 plungers, the springs and pins must also be replaced. Straighten end of old spring where it emerges from hole in hookswitch lever and remove spring. Using offset spring from No. 211444 Package Assembly engage new spring in two small holes of hookswitch lever and bend over end of the spring to secure it to the lever. Position No. 211121 plunger on lever, aligning hole in plunger with holes in lever. Depress spring and insert new pin so that the spring retaining groove is toward the spring. Release spring and check that it locks pin in place.

When replacing No. 211121 plungers, only the plungers need be changed.

#### 7. DIAL BLANK ASSEMBLY AND ADAPTER

7.01 No. 1543 Telephones for manual service are equipped with a No. 208137 Dial Blank Assembly and No. 208122 Adapter. The Dial Blank Assembly fits into the opening in the Adapter and both are fastened to the dial mounting bracket by means of two screws.

7.02 To equip a No. 1543 Telephone with a dial having the numbers and letters under the finger wheel, place the dial in the opening in the No. 208122 Adapter. Line up the screw holes in the dial with those in the adapter and fasten both to the dial mounting bracket by means of two dial mounting screws.

7.03 To equip a No. 1543 Telephone with an Automatic Electric Co. dial having a black number plate with white dots centered in the openings in the finger wheel, equip the A.E. dial with a No. D-530105-A A.E. dial number plate. A S.C. No. 209317 Number Plate Kit consisting of 1 - No. 209316 Number Plate, 1 - No. 207677 Gasket Assembly, 2 - No. 515872 Dial Mounting Screws and 2 - No. 526281 Lock washers, is also required. Fit the dial into the opening in the S.C. No. 209316 number plate so that the figures on the number plate are adjacent to their respective openings in the finger wheel. Line up the screw holes in the No. 209316 number plate and the dial with those in the dial mounting bracket. Fasten the dial assembly to the bracket by means of the dial mounting screws equipped with lock washers. Mount the dial bracket on the base of the telephone and fit the No. 207677 gasket around the raised edge of the No. 209316 number plate before placing the plastic housing on the base assembly.

#### 8. CONVERSION PROCEDURES

8.01 Converting Manual Telephone to Dial Telephone: Loosen screw in rear clip of housing and remove housing. Disengage twin prongs of dial bracket from base and remove dial

## SECTION C31.120.2

blank assembly and bracket. Remove dial blank assembly mounting screws. Place a No. 203052 dial cable clamp on one of the dial mounting screws. Position the dial on the dial bracket so that the screw holes in the dial are aligned with the holes in the bracket. With the prongs of the bracket downward, place the screw with the clamp through the hole in the right side of the bracket. Place the dial cable under the clamp and tighten screw into dial. Place the second dial mounting screw in the other hole and attach bracket to base assembly. Connect dial cable as shown in Fig. 2 on page 5. Replace housing on base.

### 9. 1543 and 1543W WALL TELEPHONES FOUND IN SERVICE

9.01 No. 1543 and No. 1543W Wall Type Telephones are superseded by the Kellogg K-554 Wall Telephone covered in Section C31.121.

9.02 No. 1543 and No. 1543W Wall Type Telephones now in service shall remain in service until replacement is necessary due to excessive trouble or extensive damage to the telephone. No. 1543 Wall Type Telephones shall not be reused in the "L" transmission zones to complete service work orders specifying the reuse of equipment, but may be reused at stations where the transmission zoning does not apply. No. 1543W Wall Telephones found in place may be reused regardless of the transmission zone.

9.03 No. 1543 and No. 1543W Wall Telephones returned to the Storeroom shall be converted to desk type telephones.

9.04 Early No. 1543 Wall Telephones are equipped with No. 207705 plungers which straddle the retaining spring. Later models of the No. 1543 Wall Telephones are equipped with reinforced plungers coded No. 211147 and offset retaining spring which lies along the side of the plunger. When it is necessary to replace wall set plungers, No. 211147 plungers shall be used. Parts required to replace plungers are contained in No. 211445 Package Assembly.

### 10. REMOVAL OF RINGER LOUDNESS CONTROL SWITCH

10.01 Removal of Ringer Loudness Control switch from No. 1543 Type Telephones will be governed as follows:

- a) Station Installation and Conversion Forces shall remove the Ringer Loudness Control switch from all No. 1543 Type Telephones provided for the completion of service work orders or encountered in the preparation of stations for dial operation.
- b) Maintenance Forces shall remove the Ringer Loudness Control switch from No. 1543 Type Telephones when visiting stations to clear bell troubles.
- c) Repair Shop Forces shall remove the Ringer Loudness Control switch from all No. 1543 Telephones routed through the Repair Shop for repairs or inspection.

10.02 No. 1543 A,E,F,G,H and N Telephones: Disconnect switch leads from the No. 3 and No. 15 terminals of the coil and capacitor assembly. Remove switch assembly mounting screw and lift switch from base of set. Transfer red lead of ringer from No. 15 terminal to No. 3 terminal of coil and capacitor assembly.

10.03 No. 1543BT Telephones: Disconnect switch leads from K terminal of tube mounting terminal block and from No. 15 terminal of coil and capacitor assembly. Remove switch. Transfer black ringer lead from No. 15 terminal of coil and capacitor assembly to K terminal of tube mounting terminal block. Tube leads remain unchanged.

10.04 Return Ringer Loudness Control switches to Storeroom.



LINE

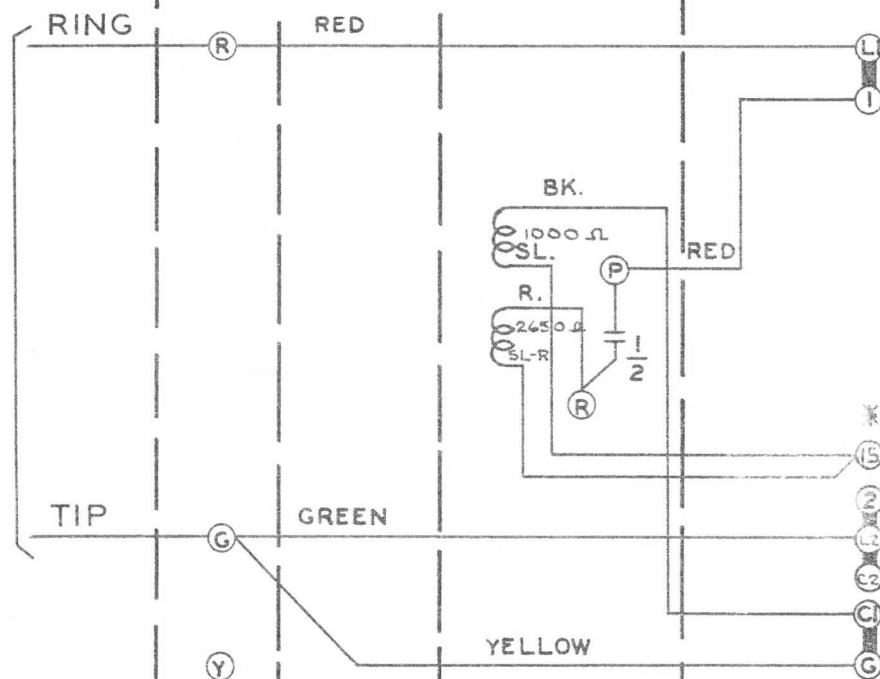
INSIDE  
WIRING

42 A  
CONN.  
BLOCK

MTG.  
CORD

# 75  
RINGER

NETWORK  
TERMS



BRIDGED RINGING

\* TERMINAL 15-1543  
TERMINAL 12-1543W

Fig. 1

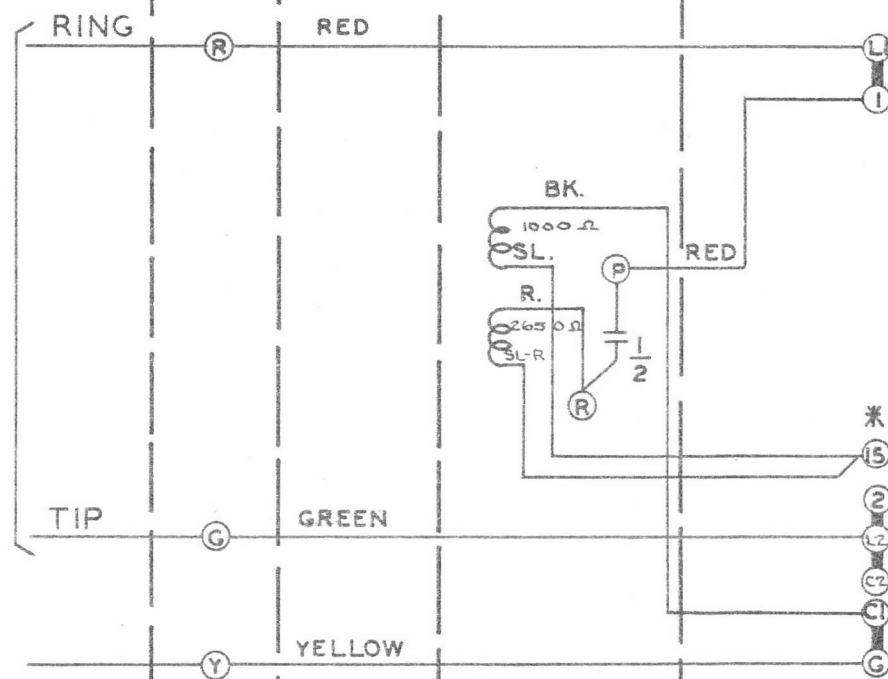
INSIDE  
WIRING

42 A  
CONN.  
BLOCK

MTG.  
CORD

# 75  
RINGER

NETWORK  
TERMS



DIVIDED CIRCUIT RINGING

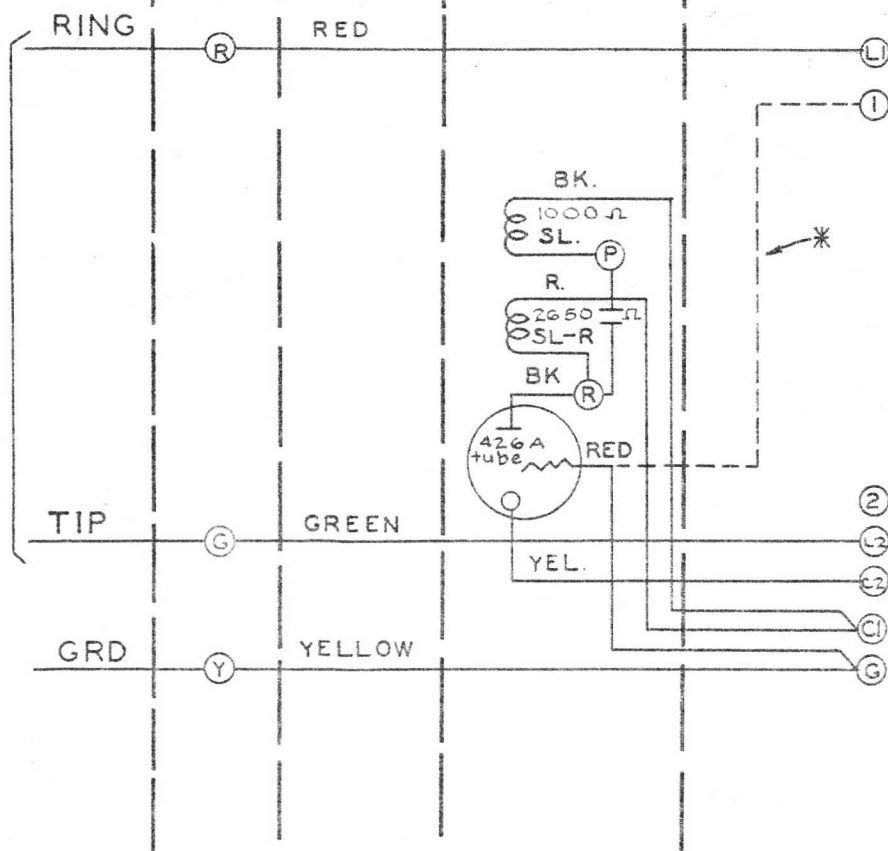
RING PARTY CONNECTIONS SHOWN  
REVERSE LINE LEADS FOR TIP PARTY  
\* TERMINAL 15-1543  
TERMINAL 12-1543W

SECTION C31.120.2

Type 1543 and 1543W Telephone Circuit for Bridged and Divided circuit ringing with #75 Type Ringer



LINE

INSIDE  
WIRING42 A  
CONN.  
BLOCKMTG.  
CORD#75  
RINGERNETWORK  
TERMS

NEGATIVE TIP AND RING PARTIES  
(USE FOR NO LINE INDUCTION CASES)

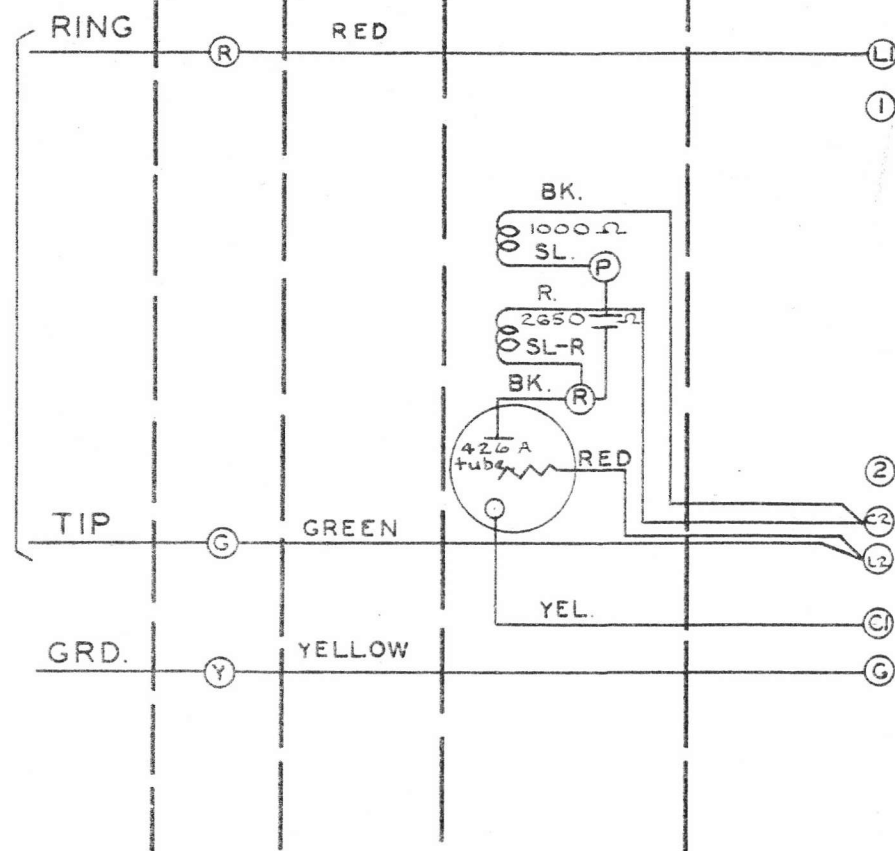
TIP PARTY CONNECTION SHOWN

REVERSE LINE LEADS FOR RING PARTY

\* FOR AVERAGE LINE INDUCTION CASES, MOVE  
RED TUBE LEAD TO ① AS SHOWN DOTTED.

INSIDE  
WIRING42 A  
CONN.  
BLOCKMTG.  
CORD#75  
RINGERNETWORK  
TERMS

LINE



POSITIVE TIP AND RING PARTIES  
(USE FOR NO LINE INDUCTION CASES)

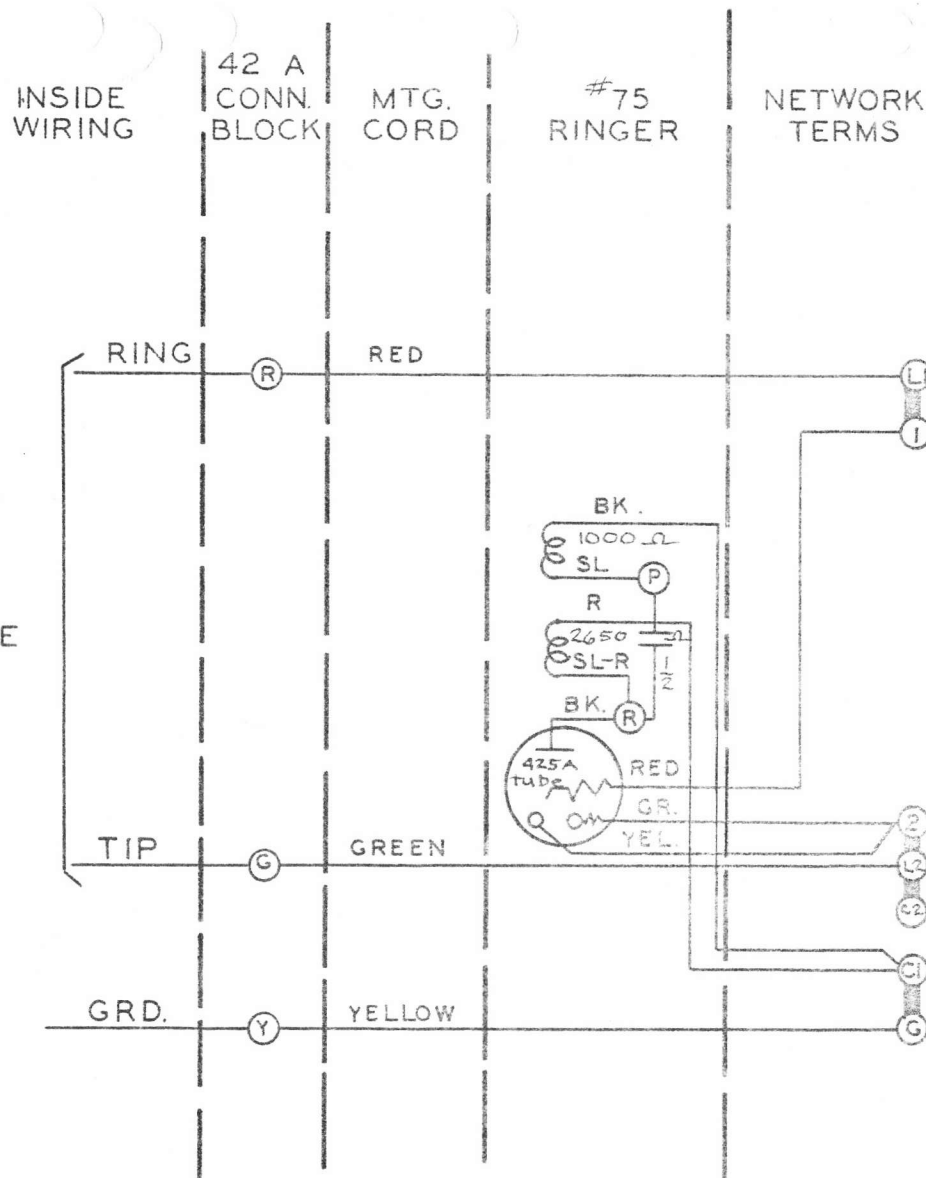
TIP PARTY CONNECTION SHOWN.

REVERSE LINE LEADS FOR RING PARTY

Fig. 2

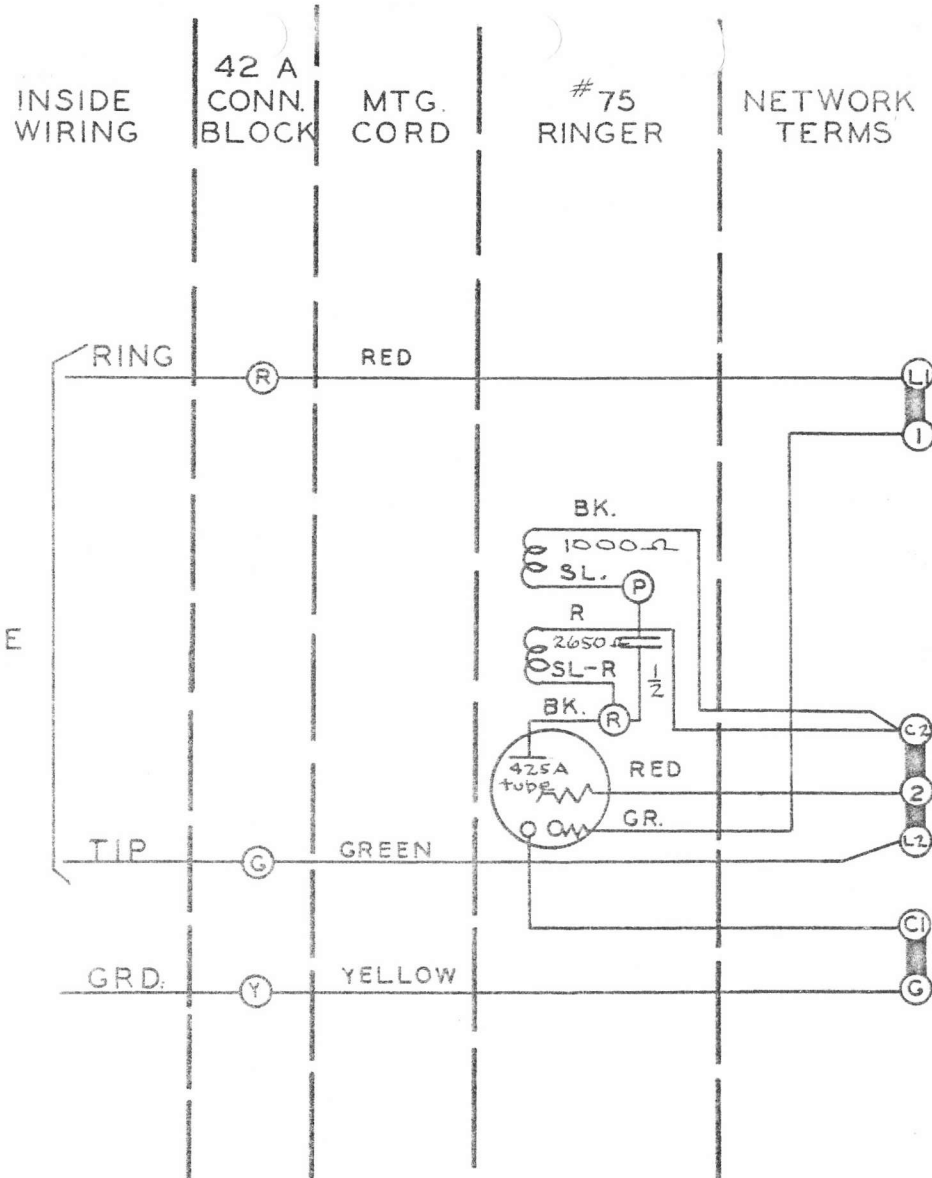
Type 1543 Telephone Circuit for Superimposed Ringing with 426A Vacuum Tube and #75 Type Ringer

LINE



NEGATIVE TIP AND RING PARTIES  
(USE FOR SEVERE LINE INDUCTION CASES)  
TIP PARTY CONNECTION SHOWN  
REVERSE LINE LEADS FOR RING PARTY

LINE



POSITIVE TIP AND RING PARTIES  
(USE FOR AVERAGE AND SEVERE LINE INDUCTION CASES).  
TIP PARTY CONNECTION SHOWN  
REVERSE LINE LEADS FOR RING PARTY

Fig. 3

Type 1543 Telephone Circuit for Superimposed Ringing with 425A Vacuum Tube and #75 Type Ringer