

## Western-Electric

# Desk Telephone Sets

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Booklet No. 1079-B

# Western-Electric Desk Telephone Sets

Are designed and built to give good service



Their popularity proves that they do!

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USE In the early days of the telephone business the Western Electric Company foresaw that, sooner or later, there would have to be a form of telephone suitable for use on an office desk, so that the business man wishing to telephone would not have to get up from his desk and walk over to a wall telephone. This resulted in the development of the desk stand telephone set, which has done so much for the comfort and convenience of the business world.

The demand for desk stands has been increasing steadily ever since their inception, until at present



No. 1020-B Desk Stand Showing Simplicity of Construction.

practically every office, where telephones are used, is equipped with desk sets. Not only that, but a considerable number of people who have telephone service in their homes prefer them, especially when they are to be placed in their library, den or bed-room.

There are no other types of telephone that equal desk stands from the standpoint of **convenience**. They are **small**, **compact**, **portable**, and **graceful** in every line. Every part is substantially made, so that there is small chance for injury (if a desk set falls to the floor, as a result of careless handling).

## DESIGN AND CONSTRUCTION

The No. 1020 desk stand sets have been designed to present a graceful appearance,

to be light enough to handle with ease, and yet be able to withstand the hard knocks of continuous service. They are made of carefully inspected raw



No. 1020-M Desk Stand With Transmitter Cut-out Button.

materials, are sturdily built, and every stand is given an exhaustive test under service conditions before it leaves the factory. This results in uniformly good stands and minimum maintenance expense for the user.

The contact springs and binding posts are mounted on a steel terminal plate, which also carries the receiver

hook and the lug for holding the transmitter. This terminal plate is normally enclosed in the stem or handle of the stand to make it dust-proof and may be removed as a unit by simply loosening **one** screw. In this way the working parts can be taken out for inspection without disturbing the spring adjustments.



No. 1020-S Desk Stand-Black Enamel Finish.

All contact points are of platinum set in German silver springs. The cords enter the stand through a rubber bushed hole in the base of the stand, which in turn is covered underneath with a felt pad to prevent it from scratching even the most highly polished surfaces.

The Nos. 1020-S, 1020-AH, 1020-AL and 1020-AM desk stands, similar to the stands shown on the opposite page, are finished in a durable black on all exposed parts except the transmitter and receiver binding posts. All the other stands of the No. 1020 type are finished in a heavy nickel plate. They may, however, be had in black, if so ordered, without additional charge.



No. 143-W Receiver-Concealed Binding Posts.

## TRANSMITTERS AND RECEIVERS

The transmitters and receivers furnished with the desk sets are of the same high quality

to be found on every one of the 6,000,000 "Bell" telephones manufactured by us, and on almost every other telephone set to-day in the United States. They give maximum transmission efficiency with a minimum of current consumption.

The concealed binding post (No. 143-W) receiver is recommended for the No. 1020 type of desk set; but either it or the exposed binding post (No. 122-W) receiver will be furnished, as specified on the order. Both are dust-proof and require no adjustment after leaving the factory.

It is our practice to furnish high resistance transmitters with all of our sets, although we are in a posi-



No. 122-W Receiver—Exposed Binding Posts.

tion to supply low resistance instruments for magneto service. Both types will operate on two cells of dry battery for ordinary magneto service, but three cells are recommended when maximum transmission is desirable, as in the case of long toll connections. Western Electric transmitters do not pack, and adjustment is permanent. Where it is not desired to have the transmitter case form a part of the circuit, insulated transmitters are available.

#### **DESK STANDS**

The various desk stands of the No. 1020 type for central battery and magneto service are listed below. The code numbers should invariably be used when ordering. Prices are list.

Code No.	Description	Standard Finish	List Price Each
1020-BC	For regular local battery bridging or central battery service.  Includes: 1 No. 229 W transmitter, 1 No. 122-W receiver, 1 No. 392 cord.  This may be used with a No. 7 type coin collector on single party lines, or on party lines when code ringing is employed.	Nickel Plate	\$6.90
1020-C	For operator's telephone set with cord- less private exchange. Includes: 1 No. 229-W transmitter, 1 No. 122-W receiver, 1 No. 293 cord.	Nickel Plate	7.15
1020-H	For intercommunicating service. Includes: 1 No. 229-W transmitter, 1 No. 143-W receiver, 1 No. 289 cord.	Nickel Plate	7.25
1020-J	For operator's telephone set with No. 128-W receiver. Provision is not made for a switch hook.  Includes: 1 No. 229-W transmitter, 1 No. 128-W head receiver, 1 6-ft. No. 178 cord, 1 6-ft. No. 10 cord, 1 9-in. No. 179 cord.	Nickel Plate	6.90
1020-MC	For central or local battery service with transmitter cut-out button.  Includes: 1 No. 229-W transmitter, 1 No. 122-W receiver, 1 No. 392 cord.	Nickel Plate	7.15

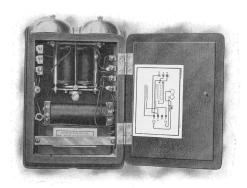
Code No.	Description	Standard Finish	List Price Each
1020-PC	For local battery bridging or central battery service including harmonic selective; with insulated transmitter. Includes: 1 No. 291-W transmitter, 1 No. 143-W receiver, 1 No. 450 cord.	Nickel Plate	\$6.90
1020-SC	For regular local battery bridging or central battery service.  Includes: 1 No. 229-W transmitter, 1 No. 122-W receiver, 1 No. 392 cord.  This stand is the same as the No. 1020-BC except the finish.	Black	6.90
1020-AG	For central battery series telephone sets with insulated transmitter.  Includes: 1 No. 291-W transmitter, 1 No. 171-W receiver, 1 No. 418 cord.	Nickel Plate	6.55
1020-AH	For central battery series telephone sets with insulated transmitter. Same as No. 1020-AG except finish.	Black	6.55
1020-AK	For central battery series telephone sets with non-insulated transmitter. Includes: 1 No. 293-W transmitter, 1 No. 171-W receiver, 1 No. 451 cord.	Nickel Plate	6.30
1020-AL	For local battery bridging or central battery service with insulated transmitter, same as No. 1020-PC except finish.	Black	6.90
1020-AM	For central battery series telephone sets with non-insulated transmitter, same as No. 1020-AK except finish.	Black	6.30

#### DESK SET BOXES

## FOR CENTRAL BATTERY SYSTEMS

The equipments for central battery systems are designed for five classes

of service, namely:—direct, two-party selective, and four-party semi-selective; series; harmonic selective; series harmonic selective, and four-party selective. The desk set boxes ordinarily contain a ringer, condenser and induction coil. In the series sets the induction coil is omitted, while in the harmonic selec-



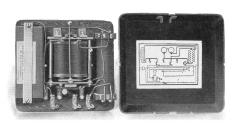
No. 295 Type Desk Set Box-Open.

tive sets the ringers are tuned to operate on different frequencies, so that four sets bridged across the circuit or eight bridged to ground may be rung selectively. With the four-party selective ringing systems, a polarized relay having biased ringers wired to ground from its local contacts is provided. Except when ringing current is applied, the relay opens the connection from ringer to ground, thus freeing the line from possible noises.

#### CENTRAL BATTERY DESK SET BOXES

Code No.	Description	List Price Each
131-J	Metal—For direct, two-party selective or four- party semi-selective service. Includes: 1 No. 17-A (1000-ohm biased) ringer, 1 No. 21-L condenser, 1 No. 20 induction coil.	\$4.35
295-A	Wood—For direct, two-party selective or four- party semi-selective service. This may be used with the No. 7 type coin collector on single party lines, or on party lines when code ring- ing is employed. Includes: 1 No. 8-AG (1000-ohm biased) ring- er, 1 No. 21-D condenser, 1 No. 20 induction coil.	4.85
295-AA	Wood—For local battery talking and central battery signaling service.  Includes: 1 No. 8-AG (1000-ohm biased) ringer, 1 No. 21-D condenser, 1 No. 13 induction coil.	4.60
295-AC	Wood—For extension service to a main telephone set on a direct, two-party selective or four-party semi-selective system. No ringer is furnished. Includes: 1 No. 21-D condenser, 1 No. 20 induction coil.	3.35
295-AM	Wood—For central battery harmonic selective signaling service. Includes: 1 No. 41-SG (460-ohm) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	6.40
295-AN	Wood—For central battery harmonic selective signaling service Includes: 1 No. 41-TG (460-ohm) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	6.40
295-AP	Wood—For central battery harmonic selective signaling service. Includes: 1 No. 41-UG (460-ohm) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	6.40
295-AR	Wood—For central battery harmonic selective signaling service. Includes: 1 No. 41-RG (1800-ohm) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	6.75
295-AT	Wood—For series service on a single, two-party selective or four-party semi-selective system. Includes: 1 No. 8.4G (1000-ohm biased) ringer, 1 No. 21-F condenser.	4.50

Code No.	Description	List Price Each
295-AW	Wood—For series harmonic selective signaling service. Includes: 1 No. 41-SG (460-ohm) ringer, 1 No. 21-F condenser.	\$5.20
295-AY	Wood—For series harmonic selective signaling service. Includes: 1 No. 41-TG (460-ohm) ringer, 1 No. 21-F condenser.	5.20
295-BA	Wood-For series harmonic selective signaling service. Includes: 1 No. 41-UG (460-ohm) ringer, 1 No. 21-F condenser.	5.20
295-BB	Wood—For series harmonic selective signaling service. Includes: 1 No. 41-RG (1800-ohm) ringer, 1 No. 21-F condenser.	5.55



#### No. 131-J Desk Set Box with Cover Removed.

297-A	Wood—For four-party selective service. Includes: I No. 8-BG (2500-ohm biased) ring- er, I No. 21-D condenser, I No. 20 induction coil, I No. 85-B relay.	9.15
334-A	Metal—For direct, two-party or four-party semi- selective service. Includes: 1 No. 8-AG (1000-ohm biased) ring- er, 1 No. 21-D condenser, 1 No. 20 induction coil.	4.85
334-E	Metal—For central battery harmonic selective signaling service. Includes: 1 No. 41-SG (460-ohm) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	6.40

Code No.	Description	List Price Each
334-F	Metal—For central battery harmonic selective signaling service. Includes; 1 No. 41-TG (460-ohm) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	\$6.40
334-G	Metal—For central battery harmonic selective signaling service. Includes: 1 No. 41-UG (460-ohm) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	6.40
334-H	Metal—For central battery harmonic selective signaling service. Includes: 1 No. 41-RG (1800-ohm) ringer, 1 No. 21 D condenser, 1 No. 20 induction coil.	6.75



No. 358 Type Desk Set Box-Closed.

334-3	service. Includes: 1 No. 41-SG (460-ohm) ringer, 1 No. 21-F condenser, 1 No. 20 induction coil.	5.50
334-K	Metal—For series harmonic selective signaling service. Includes: 1 No. 41-TG (460-ohm) ringer, 1 No. 21-F condenser, 1 No. 20 induction coil.	5.50
334-L	Metal—For series harmonic selective signaling service. Includes: 1 No. 41-UG (460-ohm) ringer, 1 No. 21-F condenser, 1 No. 20 induction coil.	5.50

Code No.	Description	List Price Each
334-M	Metal—For series harmonic selective signaling service. Includes: 1 No. 41-RG (1800-ohm) ringer, 1 No. 21-F condenser, 1 No. 20 induction coil.	\$5.85
334-N	Metal—For series service on a direct two-party selective or four-party semi-selective system.  Includes: 1 No. 6-AG (1000-ohm biased) ringer, 1 No. 21-F condenser.	3.55
358-A	Semi-flush metal—For direct, two-party selective or four-party semi-selective service. Includes: 1 No. 10-BG (2500-ohm biased) ringer, 1 No. 21-D condenser, 1 No. 20 induction coil.	7.50
358-C	Semi-flush metal—For series service on a direct, two-party selective or four-party semi-selective system. Includes: 1 No. 16-BG (2500-ohm biased) ringer, 1 No. 21-F condenser.	6.25

## FOR MAGNETO SYSTEMS

The desk set boxes which comprise the auxiliary equipment in magneto systems present the

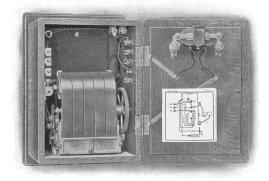
same general outward appearance as those used in central battery systems. The apparatus contained in the boxes is somewhat different, including a hand generator in addition to the ringer and induction coil, while some sets are equipped with a condenser. The condenser is used on lines where code signaling is used and is wired in series with the receiver so that in case several other receivers on the same line are off the hooks, it will still be possible to secure good signaling. Those sets not containing condensers may easily be equipped with them, if desired, at a nominal cost.

The sets of the No. 295, 300, 315 and 354 type are furnished in oak and walnut.

#### MAGNETO DESK SET BOXES

Code No.	Description	List Price Each
300-K	For heavy load rural service where code ringing is employed. Includes: 1 No. 38 BG (2500-ohm unbiased) ringer, 1 No. 48-A (5-bar A. C.) generator, 1 No. 13 induction coil.	\$10.45
300-L	For moderate load rural service where code ringing is employed. Includes: 1 No. 38-FG (1600-ohm unbiased) ringer, 1 No. 48-A (5-bar A. C.) generator, 1 No. 13 induction coil.	10.45
300-M	For moderate load rural service where code ringing is employed. With condenser in series with receiver.  Includes: 1 No. 38-FG (1600-ohm unbiased) ringer, 1 No. 48-A (5-bar A. C) generator, 1 No. 13 induction coil, 1 No. 21-W condenser.	11.30
300-N	For heavily loaded rural service where code ringing is employed. With condenser in series with receiver. Includes: 1 No. 38-BG (2500-ohm unbiased) ringer, 1 No. 48-A (5-bar A. C.) generator, 1 No. 13 induction coil, 1 No. 21-W condenser.	11.30
315-G	For series service where code ringing is employed. Includes: 1 No. 38-JG (50 ohm unbiased) ringer, 1 No. 22-B (3-bar A. C.) generator, 1 No. 13 induction coil.	6.75
315-H	For light load bridging service where code ringing is employed. Includes: 1 No. 38-AG (1000-ohm unbiased) ringer, 1 No. 22-A (3-bar A. C.) generator, 1 No. 13 induction coil.	6.85
315-J	For two- or four-party selective service. Includes: 1 No. 46-BG (2500-ohm biased) ring- er, 1 No. 22-E (2-bar A. C.) generator, 1 No. 13 induction coil.	7.45
354-A	For harmonic selective signaling. Operates on 33½ cycle ringing current. Includes: 1 No. 41-SG (460 ohm) ringer, 1 No. 22-T (3-bat A. C.) generator, 1 No. 13 induction coil, 1 No. 21-F condenser.	9.10
354-E	For harmonic selective signaling. Operates on 50 cycle ringing current. Includes: 1 No. 41-TG (460-ohm) ringer, 1 No. 22-T (3-bar A. C.) generator, 1 No. 13 induction coil, 1 No. 21-F condenser.	9.10

Code No.	Description	List Price Each
354-F	For harmonic selective signaling. Operates on	\$9.10
	66% cycle ringing current.	•
	Includes: 1 No. 41-UG (460-ohm) ringer, 1 No.	
	22-T (3-bar A. C.) generator, 1 No. 13 in-	
	duction coil, 1 No. 21-F condenser.	
354-G	For harmonic selective signaling. Operates	9.45
	on $16\frac{2}{3}$ cycle ringing current.	
	Includes: 1 No. 41-RG (1800 ohm) ringer, 1	
	No. 22-T (3-bar A. C.) generator, 1 No. 13 in-	
	duction coil, 1 No. 21-F condenser.	



No. 300 Type Desk Set Box-Open.

The following magneto desk set boxes are intended for furnishing extension service to main telephone sets, and are not provided with generators.

		List Price
Code No.	Description	Each
295-S	For light load bridging service where code ring- ing is employed.	\$3.70
	Includes: 1 No. 4-AG (1000-ohm unbiased) ringer, 1 No. 13 induction coil.	
295-Y	For heavy load service where code ringing is employed.	4.10
	Includes: 1 No. 8-BG (2500-ohm biased) ring- er, 1 No. 13 induction coil.	
295-AB	For all classes of bridging magneto service with condenser in series with receiver. No ringer is provided.	3-10
	Includes; 1 No. 13 induction coil, 1 No. 21-W	
	15	

15

BATTERY BOX The magneto desk set boxes listed herein are not arranged with space for the dry cells making up the local

battery. To provide for these cells a No. 1-A battery box may be obtained. This is a black enameled metal case designed to hold three cells of Western Electric Blue Bell Battery or others of like dimensions.



No. 1-A Battery Box.

The cover cannot be lost or mislaid, as it is attached to the case by a short chain. The battery box is also provided with bushed holes for leading-in wires.

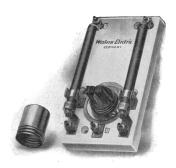
The list price is 75 cents each.

#### PROTECTION

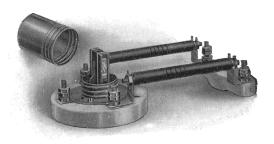
#### WHAT PROTECTORS ARE FOR

Wherever telephone wires are run in exposed places, it is customary lightning as well as from

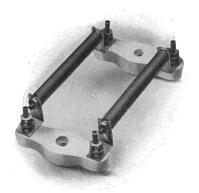
that they be protected from lightning as well as from any high potential lighting or power circuits which may be strung on the same poles or on pole lines crossing the telephone lines.



No. 12-A Protector.



No. 58-A or B Protector.



No. 59-A Protector.



No. 60-A or E Protector.

The leading telephone experts unite in expressing their opinion that the protectors should be placed at the point where the line wires enter the building. This makes it possible to place the protectors where they will not be tampered with and accidentally grounded. This is why Western Electric telephone sets and desk set boxes are not equipped with protectors, mounted on the set.

The following list gives descriptions and list prices of various protectors:—

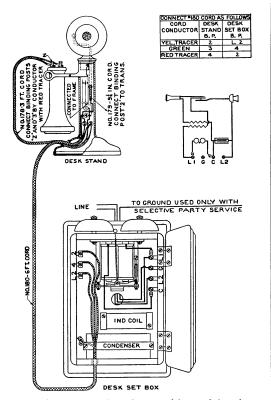
#### **PROTECTORS**

Code No.	Description	List Price Each
12-A	Two heat coils, two 7-ampere fuses and two car- bon open space cut-outs, mounted on a porce- lain base.	\$1.22
58-A	Two 7-ampere fuses and two carbon open space cut-outs, mounted on two porcelain bases.	.77
58-B	Two 7-ampere fuses and two copper open space cut-outs, mounted on two porcelain bases.	.95
59-A	Two 7-ampere fuses, mounted on two porcelain bases.	.48
60-A	Two carbon open space cut-outs, mounted on a porcelain base.	.38
60-E	Two metal open space cut-outs, mounted on a porcelain base.	.675
	PROTECTOR MOUNTING	
48	Asbestos mat for use under the No. 58 or No. 59 protectors to protect the woodwork or other surface on which she protector is mounted.	.021

#### WIRING

A change has been made recently in the method of designating the terminals on those desk stands most universally used and on desk set boxes, to facilitate connecting up. Other desk stands will be changed in time. In place of the numbers formerly used, letters, which indicate the color of the tracers in the cord conductor, are used. The designations used for the most part are "GN" (green); "R" (red); "Y" (yellow); "W" (white); and "YY" (double yellow). The colors of the cord conductors are readily distinguishable, and it therefore becomes practically impossible to make an error in wiring a desk set equipment if ordinary care is used.

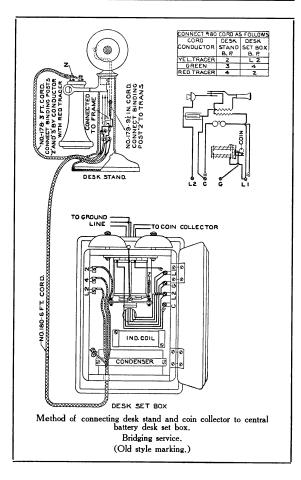
As a great number of desk stands bearing the old numbered designations are still in use, we give, in the following pages, wiring diagrams showing the terminal designations according to the old method; and following these are given wiring diagrams showing the color code method on the new style desk sets. The diagrams are labeled "Old Style" and "New Style," respectively, for easy identification.

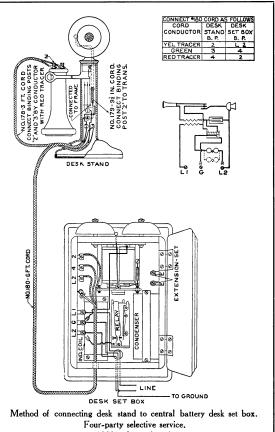


Method of connecting desk stand to central battery desk set box.

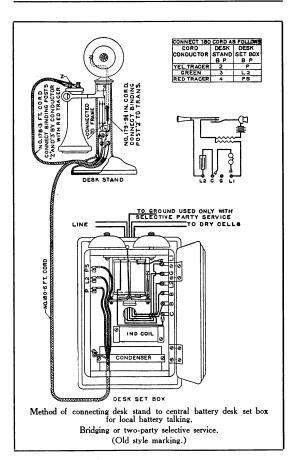
Bridging or two-party selective service.

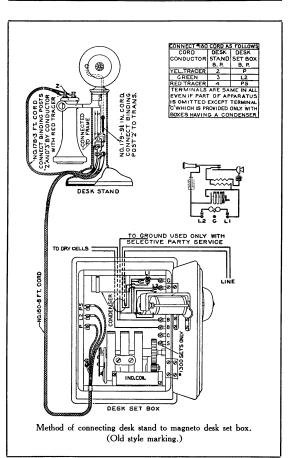
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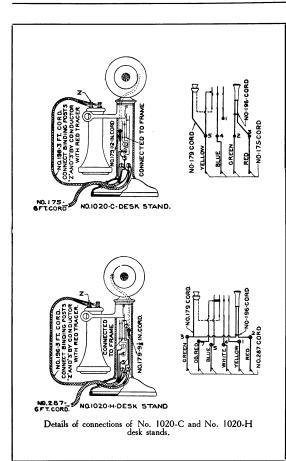


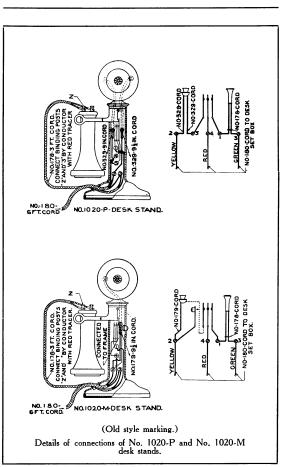


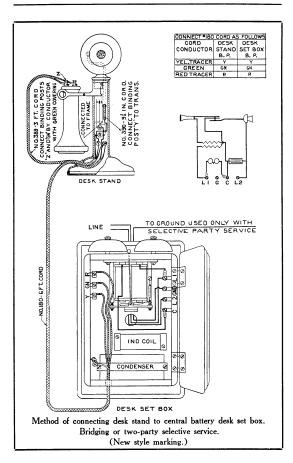
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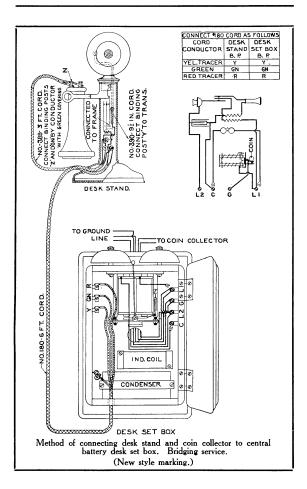


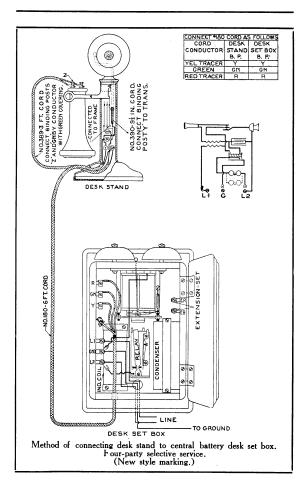


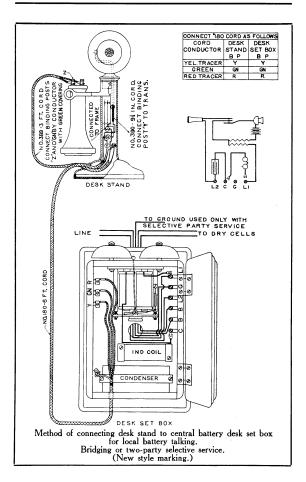


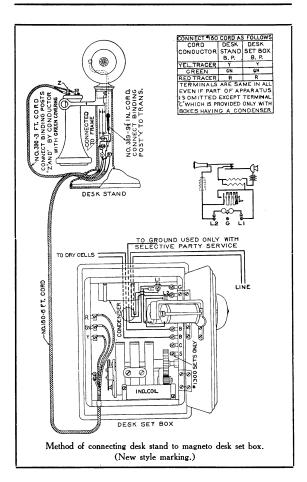


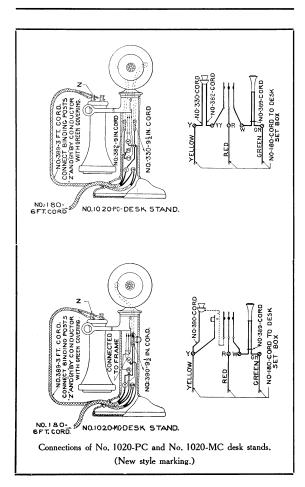


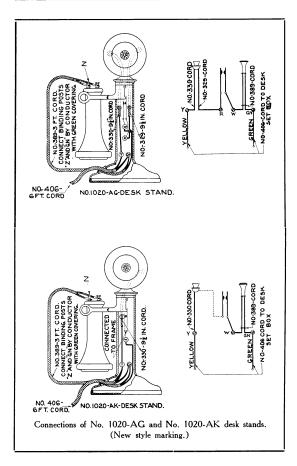


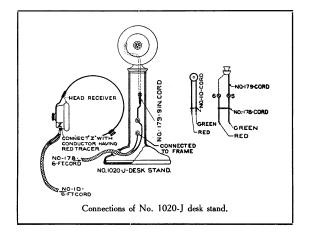












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WRITE OUR NEAREST HOUSE

"SAVE TIME AND FREIGHT"



"TELEPHONE OUR NEAREST HOUSE"