

stern Electric COMPANY



Inter-phones and Accessories

"INTER-PHONE" is the trade name adopted by the Western Electric Company for what is commonly known as Intercommunicating Telephone Apparatus. On the following pages will be found much information of value. We have avoided, as far as possible, the use of general or descriptive information, and have endeavored to condense all data given. Wiring diagrams are also shown.

Three general types of Inter-phones—wall, desk, and hand-set types—are furnished. Under each system are listed the types adapted for the service described.

INTER-PHONE SYSTEMS

The various systems for which Inter-phones are adapted are as follows:

- HOUSE TELEPHONE SYSTEM. Multi-station, one or two-way service. Two to three line wires. System No. 16, listed on page 3.
- TWO STATIONS ONLY. Two line wires. Batteries at each station. System No. 14, listed on page 6.
- TWO TO SIX STATIONS. Code ringings—common talking. Three to four line wires. Batteries at one station only. System No. 15, listed on page 7.
- THREE TO NINE STATIONS. Selective ringing. Common talking. Batteries at one station only. System No. 11, listed on page 11.
- MASTER STATION and not more than twelve outlying stations. Batteries at master station only. System No. 12, listed on page 13.
- NOT MORE THAN TWENTY-FOUR STATIONS. Selective ringing and talking between all stations. System No. 1, listed on page 18.
- A SYSTEM ALLOWING SECRET CONVERSATIONS between certain stations, being a modification of System No. 1. System No. 4, listed on page 23.
- A MECHANICAL GENERAL ALARM OR CODE SIGNALING SYSTEM, providing a mechanical means of signaling by ringing a system of bells by code. Listed on page 36.
- APARTMENT-HOUSE SYSTEM, providing service between the vestibule and apartments. System No. 7, listed on page 24.
- APARTMENT-HOUSE SYSTEM, providing service between the (a) vestibule and apartments; (b) apartments and the janitor. System No. 8, listed on page 24.
- APARTMENT-HOUSE SYSTEM, providing service between the (a) vestibule and apartments; (b) apartments and janitor; (c) apartments and tradesmen. System No. 9, listed on page 24.
- APARTMENT-HOUSE SYSTEM, adapted to large buildings, and similar to System No. 9. System No. 10, listed on page 24.





No. 1003-A Hand Set



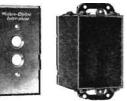
No. 1003-B Hand Set



No. 1003-B Hand Set, Cover Removed



Apparatus Unit



Face Plate No. 12007





Non-Flush Apparatus Box Cover Removed HAND-SET TYPE INTER-PHONES

The Hand Set, or Hand Microphone as it is sometimes called, is often more convenient than the ordinary wall or desk telephone, and is preferred by many telephone-users, as it can be held and operated with either hand, leaving one hand free.

It is compact, light, and inexpensive, and can be hung on a hook or laid down in any position when not in use.

Hand Set Inter-phones are of two general types, flush and non-flush, as applied to the method of mounting the apparatus box. These are made up as follows:

FLUSH TYPE

NON-FLUSH TYPE

(a) Hand Set

(a) Hand Set

(b) Flush apparatus box made up of:
(b) Non-flush apparatus box
1 flush plate (brush brass) No.
12007 W. E. Catalog

1 wall box No. 110985 W. E. Cata-

- log
- 1 Apparatus Unit

These two types cover the equipment in general, but there are special features, such as Hand Sets equipped with plugs, long extension cords for bed service, etc., discussed under the systems following.

The contractor's attention is called to the use of standard boxes and face plates, as described below.

The Hand Set

We manufacture two general types of hand sets for Inter-phone service, known as No. 1003-A and 1003-B.

Both of these hand sets are equipped with a grip push bar which is operated by grasping the handle firmly. The operation of this "grip" opens one contact and closes another performing the function of a switch hook. It is marked "Press to Talk."

The "B" hand set differs from the "A" in that it has, in addition to the "grip," above described, a white button for ringing or signaling the distant station. When operated, it opens one and closes one contact.

The No. 1003-A and No. 1003-B hand sets are uncorded. When corded as described on pages 34 and 35, they are assigned designating code letters and are adapted to the various systems later described.

Associate Apparatus

An Apparatus Box, in which are mounted the signaling buzzer and the connecting terminals for the wires, must be associated with the Hand Set in order to complete the Inter-phone. These apparatus boxes are furnished in two types, viz.: Flush and Non-flush.

Flush Apparatus Box: This consists of three parts: the Wall Box, the Apparatus Unit, and the Face Plate.

An important point to be observed is that the Wall Box and the Face Plate are the same as used in electric-light wiring for push-bullon switches. This feature is of special importance to the contractor, since it allows him to draw on his own slock for these parts. For this reason, we are prepared to furnish sets complete, including wall box and flush plate, or minus these parts, as desired.

Non-Flush Apparatus Box: This box is intended for use in buildings where it is not convenient to mount the flush type. Finished in dull black with nickel trimmings. Approximate size, $3\frac{11}{16}$ " diameter by $1\frac{5}{16}$ " deep.

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 2

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INTER-PHONE SYSTEM NO. 16 House Telephone System

MASTER AND OUTLYING STATIONS

The following equipment is especially adapted to residence work, as it provides the service generally desired in a large percentage of homes. It is also well suited for installation in hotels where an annunciator system is already in use (either one way or return call), as the same wiring can be used without making any changes.

It embraces a multi-station system requiring only TWO wires (1 common and 1 individual) for one-way calling, and THREE wires (1 common and 2 individual) for two-way calling. This matter of wires is especially emphasized because IT ALLOWS OLD BELL AND ANNUNCIATOR WIRING to be used for telephone service.

The service provided by this system is between a Master Station in the kitchen, butler's pantry, or other convenient place and *Oulying Stations* in the various rooms, halls, etc. ______The Outlying Stations can call the Master Station and be called by the Master Station (if desired).

They, however, cannot call each other. The Master Station and be called by the Master Station (if desired). The Master Station can call the Outlying Stations selectively (if desired) and be called by them. Calling both ways between the Master and Outlying Stations is called TWO-WAY SERVICE. Calling only from the Outlying to the Master Station is called ONE-WAY SERVICE. In new installations where ordinary bell or buzzer service is required at present, but where at some

future date telephone service may be required, considerable advantage can be gained by installing No. 382-C apparatus units complete with wall boxes and face plates in place of push buttons, and a one-way service annunciator (the code number depending on the number of drops) as the master station. This will give a straight bell or buzzer installation which can be used for telephone service when desired.

Will give a straight dell or buzzer installation which can be used for telephone service when desired. The only equipment required to change this bell or buzzer system to a one-way calling telephone system is a No. 1003-D Hand Set for the annunciator (a screw-driver being the only tool necessary to con-nect it), and a No. 1003-F Hand Set for each of the outlying stations. The cord on the No. 1003-F Hand Set is equipped with a plug and the No. 382-C Apparatus Unit contains a jack, so it is only necessary to insert the plug of the Hand Set into the jack of the apparatus unit to convert the system into a one-way signaling telephone system. Special attention is called to the fact that had be the destruction of the system into a screway signal to the system into a screway signal to the system.

Special attention is called to the fact that hand sets equipped with extension cords are available, so that the hand set can be carried to the bed in case of illness. It will perhaps be desired to have at least one hand set with extension cord for use in emergencies. The extension cord is 8 feet long, which, together with the other order made at the total length of the head att card 11 foot with the other cords, makes the total length of the hand-set cord 11 feet.

3

MASTER STATION

Consists of an Annunciator and a No. 1003-D Hand Set. The code numbers and prices listed below cover the annunciator only. The No. 1003-D Hand Set should be ordered separate. See page 34 for Hand Set prices.

The finish of the annunciator is golden oak; however, light or dark oak finish can be furnished without additional charge. For TWO-WAY SERVICE the annunciator must have

ringing buttons—one for each Outlying Station. For ONE-WAY SERVICE the ringing buttons are not

necessary.

Annunciator for Two-Way Service

List No.	No. Drops	List Price*
360000	2	\$17.45
360001	4	19.00
360002	6	24.60
360003	8	31.25
360004	10	37.60
360005	12	45.20
360006	15	51.10
360007	20	61.25
360008	24	73.35

Appnunciator for One-Way Service

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List No.	No. Drops	List Price*
360009	2	\$ 4.55
360010	4	7.60
360011	6	10.50
360012	8	13.95
360013	10	17.45
360014	12	20.95
360015	15	25.50
360016	20	34.00
360017	24	40.85

NOTE.-Master Stations can also be furnished in greater capacities than those listed. Price on any size furnished on request. *Does not include Hand Set. See page 34 for prices.

No. 360011 Master Station One-Way Service

No. 360005 Master Station Two-Way Service

Complete Connection Diagram furnished with each Inter-phone

Inter-phones and Accessories

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INTER-PHONE SYSTEM NO. 16 (Continued)

OUTLYING STATIONS-FLUSH TYPE



No. 6042-M and R

Two-Way Service Code No. List Price Description 6042-D Consists of: 1 No. 382-D Apparatus Unit, containing 1- 3-ohm buzzer, 1-jack, 1-push button; and 1 No. 1003-F Hand Set..... \$ 9.40 6042-M Same as No. 6042-D, but complete with 1 No. 12007 Brush Brass "H. & H." Face Plate, size $4\frac{1}{2}'' \ge 2\frac{3}{4}''$; and 1 No. 110985 Wall Box, size 2" x 3" x 3" deep..... 9.80 6042-N Same as No. 6042-D, but equipped with an 11-ft. Sectional Extension Cord. In other words, a No. 1003-H Hand Set is furnished in place of the No. 1003-F*.... 11.55 Same as No. 6042-N, but complete with 6042-P 1 No. 12007 Brush Brass "H. & H." Face Plate, size $4\frac{1}{2}'' \ge 2\frac{3}{4}''$; and 1 No. 110985 Wall Box, size 2" x 3" x 3" deep..... 11.95

One-Way Service

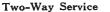
OS 6042-D, M,NP,C,A,S, &T.	Code No.		Description	List Price
Omitted in C.R.S.&T Sets	6042-C	Consists of:	1 No. 382-C Apparatus Unit, containing 1-jack, 1-push but- ton (no buzzer furnished); and 1 No. 1003-F Hand Set	\$8.00
	6042-R	Same as No. 6042	2-C, but complete with	
			1 No. 12007 Brush Brass "H. & H." Face Plate, size 4½" x 2¾"; and 1 No. 110985 Wall Box, size 2" x 3" x 3" deep	8.40
	6042-S	Same as No. 6042	2-C, but equipped with an 11-ft. Sectional Extension Cord. In other words, a No. 1003-H Hand Set is furnished in place	
			of the No. 1003-F*	10.15
	6042-T	Same as No. 6042	 2-S, but complete with 1 No. 12007 Brush Brass, "H. & H." Face Plate, size 4¹/₂" x 2³/₄"; and 1 No. 110985 Wall Box, size 2" x 3" x 3" deep 	10.55
No. 6042-P and T		*See pages 34	and 35 for Cording of Hand Sets.	
A 1 A				

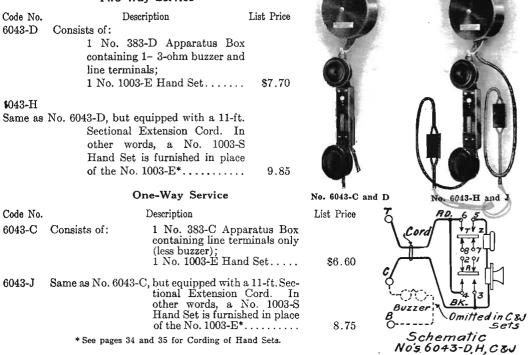
No. 6042-P and Complete Connection Diagram furnished with each Inter-phone **Inter-phones and Accessories** 4

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INTER-PHONE SYSTEM NO. 16 (Continued)

OUTLYING STATIONS-NON-FLUSH TYPE

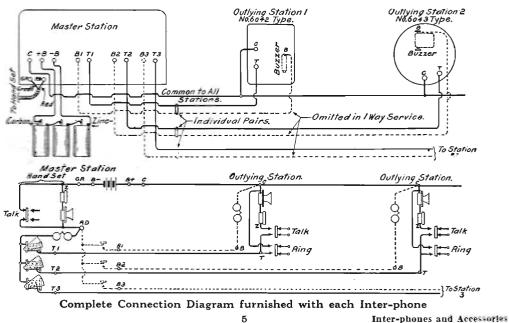




Note.—All Hand Sets used with System No. 16 have a ringing button, enabling the user to ring from the Hand Set, thus permitting the use of any length cord. As all flush boxes also have a ringing button, the use of the System for Straight Annunciator Service when Hand Sets are not furnished is possible. Hand Sets providing telephone service can be added at any time.

Battery Requirements Lines from 200-300 feet require 4 Blue Bell dry cells.

CONNECTION DIAGRAMS AND SCHEMATIC Two and One-Way Service







No. 1327-AA

INTER-PHONE SYSTEM NO. 14

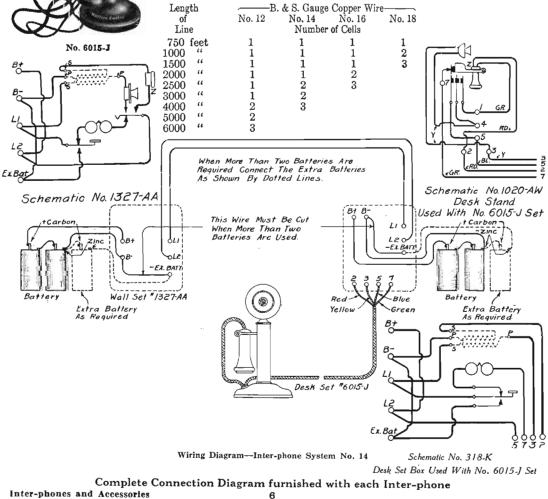
Private Line Telephones

Two sets only can be connected on a line. Two conductors are necessary. Batteries are required at both stations.

WALL SET List Price Code No. Description Each 1327-AA A compact golden oak instrument. The cabinet measures 5¾ inches wide, 6½ inches long, 3¼ inches deep. Trimmings are nickel. Includes 1 No. 179-W receiver, 1 No. 294-W transmitter, 1 No. 360-2½ foot receiver cord, 1 No. 101398 bell. \$6.70 DESK SET Code No. Description 6015-J Consists of a No. 318-K golden oak desk set box, in which a ringing butter and a No. 101399 bell are

Battery Requirements

Use two Blue Bell dry cells at each station for the talking battery in all cases. For signaling the following additional dry cells will be required at each station when the distance between the sets does not exceed the lengths given :



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5. Johnan sul 1.47

INTER-PHONE SYSTEM NO. 15

Code Ringing, Common Talking

A common talking, code-ringing system arranged for two to six stations. Three wires are required when there are only two stations. When there are more than two stations, four wires are necessary. ONE STATION MUST HAVE A RETARDATION COIL. Also, where there are more than two stations, the retardation coil set should be located as near the center of the system as possible.

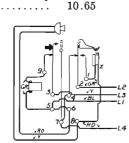
ONE SET OF BATTERIES ONLY IS REQUIRED, WHICH MUST BE CONNECTED TO THE SYSTEM THROUGH THE RETARDATION COIL OR BATTERY STATION.

WALL SETS

Description

List Price

- Code No. Each No. 1327-S and T. Wall Sets 1327-S A compact, golden oak instrument, with nickel trimmings. Cabinet measures 5¼ inches wide by 6¼ inches long by 3¼ inches deep. Includes 1 No. 179-W receiver, 1 No. 294-W transmitter, 1 No. 101398 bell, 1 No. 360-2½-ft. receiver cord, 1 No. 51-C retardation coil. Must be used as the battery station..... \$6.50 Same as No. 1327-S except not equipped with retardation coil. Can be used for non-battery stations only..... 1327-T 6.00 1339**-**L A flush mounting metal case instrument, face plate finished regularly in brush brass. Metal wall box is included. Equipped with 1 No. 180-W receiver, 1 No. 294-W trans-mitter, 1 No. 101400 bell, 1 No. 360-21/2-ft. receiver cord, 1 No. 51-C retardation coil. Must be used as the battery station. Size of face plate: $5\frac{1}{16}$ inches wide by $8\frac{1}{16}$ inches long. Size of wall box: $3\frac{1}{16}$ inches wide by $6\frac{5}{8}$ inches long by 23% inches deep 8.30 Same as No. 1339-L except not equipped with retarda-tion coil. Can be used for non-battery stations only 1339-M 7.60 No. 1339-L and M DESK SETS
- The most compact instrument of its kind on the 6034-AS he most compact instrument of its kind on the market. The ringing button is in the stem, and the signal buzzer in the base of the stand. In-cludes two connecting blocks, 1 No. 51-E re-tardation coil, and 1 No. 1320-BG black finish desk stand, equipped with 1 No. 179-W receiver, 1 No. 302-W transmitter, 1 No. 433-6-ft. desk stand cord, 1 No. 535-3-ft. receiver cord, and 2 No. 466-1146-in transmitter cords. Must be No. 466-111/2-in. transmitter cords. Must be used as the battery station.....
- 6034-AR This instrument is exactly the same in appearance as the No. 6034-AS except that no retardation coil is furnished. Includes two connecting blocks and a No. 1220-BG black finish desk stand equipped with 1 No. 179-W receiver, 1 No. 302transmitter, 1 No. 433-6-ft. desk stand cord, 1 No. 535-3-ft. receiver cord, and 2 No. 466-111/2-in. transmitter cords. Can be used for non-battery stations only



\$11.25

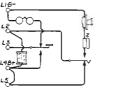
Schematic No 6034-AS

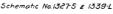
No. 6034-AR. Desk Set

Schematic No. 6034-AR

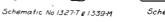
Complete Connection Diagram furnished with each Inter-phone

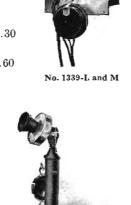
Inter-phones and Accessories

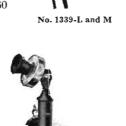














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INTER-PHONE SYSTEM NO. 15 (Continued)

HAND SETS

Flush Type

6		Flush Type			
	Code No. 6042-A	List Price Each \$8.75			
No. 6042-A	6042 - H	Same as No. 6042-A, but complete with 1 No. 12007 brush brass H. & H. face plate, size $4\frac{1}{2} \ge 2\frac{3}{4}$ in.; 1 No. 110985 wall box, size 2" ≥ 3 " ≥ 3 " deep. Can be used for the battery station only	9.15		
	6042 -B	Consists of 1 No. 382-B apparatus unit (same as No. 382-A, less retardation coil), and 1 No. 1003-K hand set. Can be used for non-battery stations only	7.95		
	6042 - J	Same as No. 6042-B, but complete with 1 No. 12007 brush brass face plate, size 4½ in. x 2¾ in.; 1 No. 110985 wall box, size 2" x 3" x 3" deep. Can be used for non- battery stations only	8.35		
No. 6042-H and J		Non-Flush Type			
	6043 - A	 Consists of 1 No. 383-A apparatus box, containing 1-15-ohm buzzer, 1-100-ohm retardation coil, line terminals, and hook for hand set. 1 No. 1003-M hand set. Can be used for the battery station only	9.40		
	 6043-B Consists of 1 No. 383-B apparatus box (same as the No. 383-A, less retardation coil). 1 No. 1003-N hand set. Can be used for non-battery stations only 				
No. 6043-A and B					
LIB- 4 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5	L1 $L2$ $L3$ $L4$ $Schemo$	$\begin{array}{c} LIB^{-} \\ \hline \\ er \\ er$	₩260+3-8		

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 8

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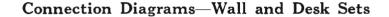
INTER-PHONE SYSTEM NO. 15 (Continued)

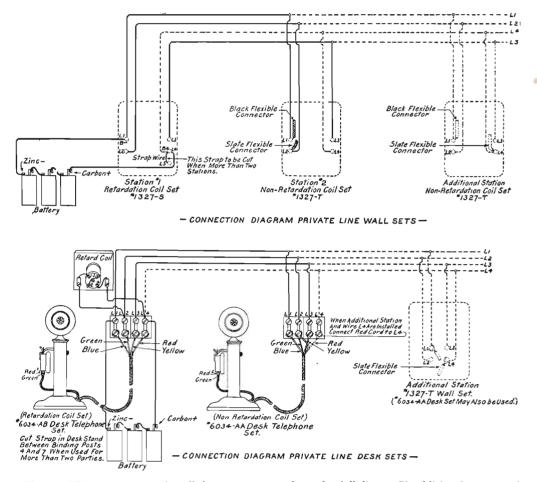
Battery Requirements

The following number of Blue Bell dry cells connected in series will be required for the lengths of line and number of Inter-phone sets listed below.

Number of Inter-phone Sets		2				3				4			5	.5				6		
B. & S. Gauge Copper Wire		No. 18	No. 20	No. 22	No. 16	No. 18	No. 20	No. 22												
Length of Line 250 Ft 500 "	9	83	33	3	33	3 3	3 3	35	8 8	3	84	3	8	34	35	4	3	34	3	5
" " " 750 " " " 1000 "	9	3	34	4	3	34	4		34	4			34	5			45			
	9	3	4 5		84	5			4 5				5							

Note.-Only one string of cells is required in any case.

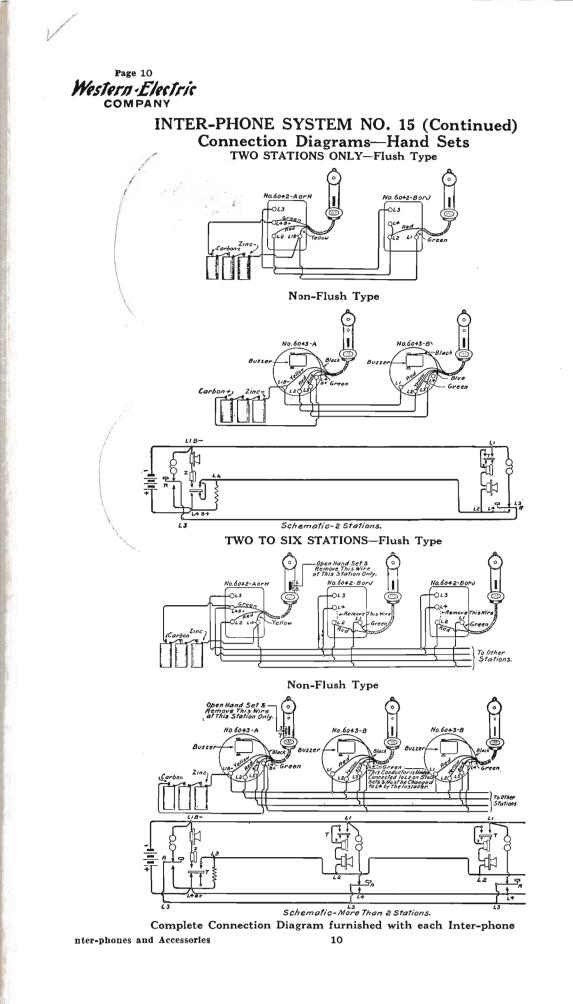




Note.—When two sets are installed, connect up as shown by full lines. If additional sets are installed, run a wire to all L4 terminals, as shown by dotted line. In wall sets, disconnect slate flexible connectors from L2 and connect to L4, and in desk type sets disconnect red cord conductor from L2 at the terminal block and connect to L4, in all sets except the retardation coil set; in the retardation coil set remove the strap wire between terminals 4 and 7 in the desk stand. Or if a wall set, cut strap wire between terminals L4 and L5. See above connection diagram of No. 1327-S wall sets.

> Complete Connection Diagram furnished with each Inter-phone 9 Inter-phones a

Inter-phones and Accessories



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INTER-PHONE SYSTEM NO. 11 Selective Ringing, Common Talking

Instruments are furnished in 4- and 8-button sizes, having capacities of 5- and 9-stations respectively. Three common wires and one individual wire for each station are necessary. One station, located preferably near the center of the system, must have a retardation coil. One set of batteries is required, which must be connected to the system through this retardation coil station.

WALL SETS

No. 1327 type. These are compact instruments, having golden oak cabinets with nickel trimmings 534 inches wide by 61% inches long by 314 inches deep. Equipped with 1 No. 179-W receiver, 1 No. 394-W transmitter, 1 No. 360-21/2 ft. receiver cord, and 1 No. 101398 bell. In addition to the above equipment, the battery station instruments Nos. 1327-J and -L are equipped with 1 No. 51-C retardation coil.

		•	LISC Frice
Code No.	Capacity	Use	Each
1327 - J	4-buttons	Battery station only	8.25
1327-K	$4 ext{-buttons}$	Non-battery stations only	7.90
1327-L	8-buttons	Battery station only	9.00
1327-M	8-buttons	Non-battery stations only	8.65

No. 1339 type. A flush mounting metal case instrument, face plate reg-ularly finished in brush brass. Metal wall box is included.

Equipped with 1 No. 180-W receiver, 1 No. 294-W transmitter, 1 No. 360-21/2-ft. receiver cord, and 1 No. 101400 bell. In addition to the above equipment, the battery station instruments Nos. 1339-B and -D are equipped with 1 No. 51-C retardation coil.

Size of face plate:

4-button $-5\frac{1}{16}$ in. wide by $8\frac{1}{16}$ in. long 8-button $-5\frac{1}{16}$ in. wide by $9\frac{3}{10}$ in. long

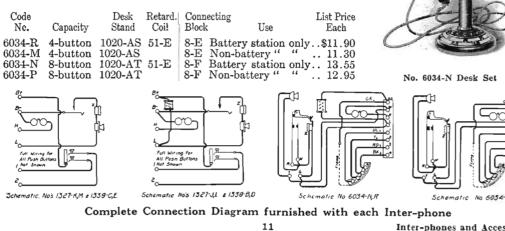
Size of wall box:

8-button $-3\frac{11}{16}$ in. wide by $6\frac{5}{6}$ in. long by $2\frac{3}{6}$ in. deep 8-button $-3\frac{11}{16}$ in. wide by $7\frac{3}{4}$ in. long by $2\frac{3}{6}$ in. deep

1339-B	4-buttons	Battery station	
1339-C	4-buttons	Non-battery stations	11.25
1339-D	8-buttons	Battery station	14.70
1339-E	8-buttons	Non-battery stations	14.25

DESK SETS

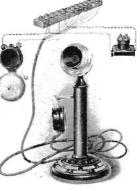
No. 6034 type. These desk Inter-phones consist of 1 No. 8 type connecting block, 1 No. 11-B bell, and a standard black finish desk stand with ringing buttons in the base, equipped with 1 No. 179-W receiver, 1 No. 302-W transmitter, 1 No. 535-3 ft. receiver cord, 1 No. 494-9¹/₂ in. transmitter cord, 1 No. 466-10¹/₂ in. transmitter cord, 1 No. 466-10¹/₂ in. transmitter cord, 1 No. 497-6 ft. 5 conductor cord. In addition the No. 1020-AS 4-button stand is equipped with 1 No. 497-6 ft. 5 conductor cord, and the No. 1020-AT 8-button stand with 1 No. 496-6 ft. 9 conductor cord. 9 conductor cord.





1327-L No.





Inter-phones and Accessories

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INTER-PHONE SYSTEM NO. 11 (Continued)



No. 6034-BA

HAND SETS

These consist of 1 No. 1003-K hand set, with 1 No. 477-3 ft. cord, 1 No. 141-A switch hook, 1 No. 8 type connecting block, No. 11-B bell, either one 4- or 8-button push button block with 1-6-ft. connecting cord, and, in the case of the battery stations, with 1 No. 51-E retardation coil.

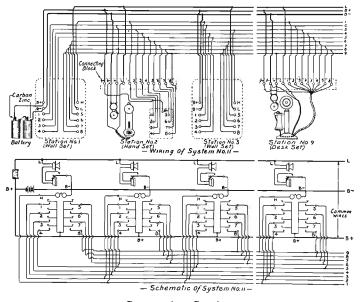
Code No.	Capacity	Push Button Block	Connecting Cord 6 ft.	Retardation Coil	Use	List Price Each
6034-AY 6034-AZ 6034-BA 6034-BB	8-button	No. 111072 No. 111072 No. 111073 No. 111073	No. 431 No. 431 No. 432 No. 432	No. 51-E No. 51-E	Battery station only Non-battery station only Battery station only Non-battery station only	$9.50 \\ 11.75$

Battery Requirements

Four to five Blue Bell dry cells are required when the wire distance between the two sets farthest apart is 750 feet or less, and the line wire composed of No. 22 B. & S. gauge copper conductors. On lines of greater length it is recommended that instead of increasing the number of battery cells to more than 5, larger wire be used as follows:

750-1000 feet—No. 20 B. & S. gauge 1000-1500 feet—No. 18 B. & S. gauge 1500-2500 feet—No. 16 B. & S. gauge

Connecting Diagrams and Schematics



Connecting Stations

Connect the cable conductors exactly the same at all stations. Then reverse the wires connected to terminals marked H and 1 at station 1; H and 2 at station 2; H and 3, at station 3, etc., up to the last station where no changes should 1st Operation: 2nd Operation: Operation:

be made.

Complete Connection Diagram furnished with each Inter-phone 12

Inter-phones_and_Accessories

INTER-PHONE SYSTEM NO. 12 Master and Outlying Stations

Intended for schools, mercantile establishments, etc., where it is desired to call and be called from a central point, or master station. The master station can call any of the outlying stations selectively, or the outlying stations can call the master station, but cannot call each other. Three common and one individual conductors are required between the master station and the outlying stations. Only one set of batteries is required, which must be located near the master station.

MASTER WALL SETS

No. 1327 Type. These are compact instruments having golden oak cabinets with nickel trimmings, and measure $5\frac{3}{4}$ inches wide by $6\frac{7}{8}$ inches long by $3\frac{1}{4}$ inches deep.

Equipment includes 1 No. 179-W receiver, 1 No. 294-W transmitter, 1 No. 360-21/2 foot receiver cord, 1 No. 101398 bell and 1 No. 51-C retardation coil.

Code No.	Capacity	Each
1327-W	4 buttons	\$8.25
1327-Y	8 buttons	9.00

No. 1339 Type. A flush mounting metal case instrument with face plate regularly finished in brush brass. Metal wall box is included.

Size of face plate: 4 button, $5\frac{1}{16}$ inches wide by $8\frac{1}{16}$ inches long.

8 button, $5\frac{1}{16}$ inches wide by $9\frac{3}{16}$ inches long. Size of wall box: 4 button, 311 inches wide by 65% inches long by 23% inches deep.

8 button, $3\frac{11}{16}$ inches wide by $7\frac{3}{4}$ inches long by $2\frac{3}{8}$ inches deep.

Equipped with 1 No. 180-W receiver, 1 No. 294-W transmitter, 1 No. 360- $2\frac{1}{2}$ foot receiver cord, 1 No. 101410 bell and 1 No. 51-C retardation coil.

		List Price
Code No.	Capacity	Each
1339-F	4 buttons	\$11.70
1339-G	8 buttons	14.70

No. 1324 Type. A non-flush metal set having a hinged front and adjustable transmitter. Black finish with nickel trimmings. Made only in the 12-button size. Size of cabinet 10 inches long by 6% inches wide by 31/8 inches deep.

Equipped with 1 No. 143-AW receiver, 1 No. 303-W transmitter, 1 No. 10-3 foot receiver cord, 1 No. 101398 bell, and 1 No. 51-C retardation coil.

		List Price
Code No.	Capacity	\mathbf{Each}
1324 - J	12 buttons	\$13.95

No. 1325 Type. A flush mounting metal set having a hinged front, adjustable transmitter and separable wall box. Black finish with nickel trimmings. Made only in the 12-button size.

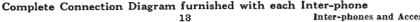
Size of face plate: 10 inches long by 63% inches wide. Size of wall box: $8\frac{11}{16}$ inches long by 5 inches wide by 25% inches deep.

Equipped with 1 No. 143-AW receiver, 1 No. 303-W transmitter, 1 No. 419- 21/2 foot receiver cord, 1 No. 101398 bell, and 1 No. 51-C retardation coil.

Code No.

1325-M







No. 1327-Y. Master Wall Set



No. 1339-G. Master Wall Set



No. 1324-J. Master Wall Set



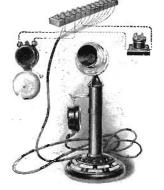
No. 1325-M. Master Wall Set

Inter-phones and Accessories

Page 13 stern Electric COMPANY

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INTER-PHONE SYSTEM NO. 12 (Continued)





No. 6034-Type. Desk Set

MASTER DESK SETS

No. 6016-R. Desk Set

\$10.10

11.75

14.70

Schematic No 1120 AH Desk Stand Used With 6016 R Set

No. 6034 Type. These master desk instruments consist of 1 No. 8 type connecting block, 1 No. 11B bell, 1 No. 51-E retardation coil and a standard black finish desk stand with ringing buttons in the base, equipped with 1 No. 179-W receiver, 1 No. 302-W transmitter, 1 No. 495-6 foot two-conductor cord, 1 No. 360-3 foot receiver cord. In addition the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord, here a construction of the stands are equipped with a 6 foot line cord. having 5 or 9 conductors respectively.

			Connecting	6 Foot	List Price		
Code No.	Capacity	Desk Stand	Block	Line Cord	Each		
6034 - L	4 buttons	1020-AS	8-E	497-5 conductor	\$11.90		
60 34-S	8 buttons	1020-AT	8-F	496-9 conductor	13.55		
	8	butto coil a desk 302-V 1 No.	n metal key box nd 1 No. 36011 stand equipped / transmitter, 1	is type consists of 1 c equipped with 1 No. 5 6 buzzer. 1 No. 1120- with 1 No. 143-AW No. 406- 6 foot desk s reiver cord. Made only	1-C retardation AH black finish receiver, 1 No. stand cord, and		
2/		size.	Code No. 6016-R		Price Each 16.50		
\odot'			MAS	STER HAND SETS			
	E.	Code 1	No.	Description	List Price		
h	634	6034-BC Four button. Consists of: 1 No. 1003-K hand set, 1 No. 8-E connecting block, 1 No. 51-E retardation coil, 1 No. 111072 push button block, 1 No. 431 6-foot					
100				No. 11B vibrating bell,	1 No.		

6016-AA Twelve button. Consists of: 1 No. 328-J

12-button metal key box containing 1 No. 360116 buzzer, 1 No. 51-C retarda-tion coil and terminals, 1 No. 1003-K hand set, and 1 No. 141-A switch hook.

Schematic No. 328-J Key Box Used With 6016-RSet,

No. 6034-BD



No. 6016-AA Complete Connection Diagram furnished with each Inter-phone

nter-phones and Accessories

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6034.1,5.

Page 15 Western ·Electric COMPANY

No. 1339-H. Wall Set

o. 6015-L. Desk Set

No. 6034-AP. Desk Set

7.60

List Price

Each

\$9.85

10.65

INTER-PHONE SYSTEM NO. 12 (Continued)

OUTLYING WALL SET STATIONS

 Code No.
 Description
 List Price Each

 1327-U
 A compact instrument having a golden oak cabinet with nickel trimmings and measuring 5¾ inches wide by 6⅓ inches long by 3¼ inches deep. Equipment includes 1 No. 179-W receiver, 1 No. 294-W transmitter, 1 No. 360- 2½ foot receiver cord and 1 No. 101398 bell.
 \$5.00
 No. 1327-U. Wall Set

 1339-H
 A flush mounting metal case instrument, face plate regment include for book b
 Motel with here i
 Motel with here i

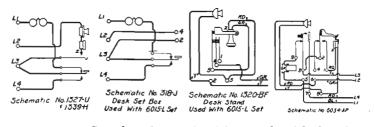
ularly finished in brush brass. Metal wall box is included. Equipment consists of 1 No. 180-W receiver, 1 No. 294-W transmitter, 1 No. 360-2½ foot receiver cord and 1 No. 101400 bell. Size of face plate 5¹/₁₆ inches wide by 8¹/₁₆ inches long. Size of wall box 3¹/₁₆ inches wide by 6⁵/₅ inches long by 2³/₃ inches deep....

OUTLYING DESK SET STATIONS

 Code No.
 Description

 6015-L
 Consists of a No. 318-J desk set box equipped with a No. 1001-A push button and 1 No. 101399 bell. 1 No. 1320-BF black finish desk stand equipped with 1 No. 143-AW receiver, 1 No. 302-W transmitter, 1 No. 406-6 foot desk stand cord, 1 No. 412- 2½ foot receiver cord.

6034-AP Consists of a No. 1020-BG black finish desk stand with ringing button in the stem, signal buzzer in the base and equipped with 1 No. 179-W receiver, 1 No. 302-W transmitter, 1 No. 433-6 foot desk stand cord, 1 No. 360-3 foot receiver cord, and two connecting blocks.



Complete Connection Diagram furnished with each Inter-phone 15 Inter-phones and Accessories

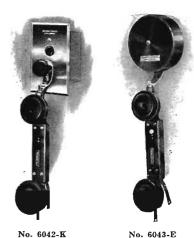
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INTER-PHONE SYSTEM NO. 12 (Continued) OUTLYING HAND-SET STATIONS



Flush Type	List Price
Code No. Description	Each
6042-E Consists of 1 No. 382-E apparatus unit, containing 2	1
push button, 1– 15-ohm buzzer, jack and line	e
terminals, and 1 No. 1003-G hand set (equipped with	ı
1 No. 142 plug)	. \$9.30

No. 6042-E

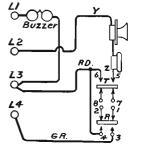


6042-K	Same as No. 6042-E, but complete with	
	1 No. 12007 H & H face plate (brush	
	brass), size $4\frac{1}{2}$ " x $2\frac{3}{4}$ ", and 1 No.	
	110985 wall box, size 2" x 3" x 3" deep	9.70

NOTE.-The No. 1003-G hand-set is equipped with a cord and plug, allowing it to be carried from room to room. This allows the number of hand-sets to be less than the number of apparatus boxes, should the service warrant this condition, and thus lessen the cost of the equipment.

		Non-Flush Type	List Price
	Code No.	Description	Each
67,45	6043-E	Consists of 1 No. 383-E apparatus box, containing 1	
et t7		15-ohm buzzer and line terminals, and 1 No. 1003-J	
Schematic Nos6042-E&K		hand-set	\$8.45

Battery Requirements



Three to five Blue Bell dry cells are required on lines up to 750 feet composed of No. 22 B. & S. gauge copper wire. On lines of greater length it is recommended that instead of increasing the number of battery cells to more than five, larger wire be used as follows:

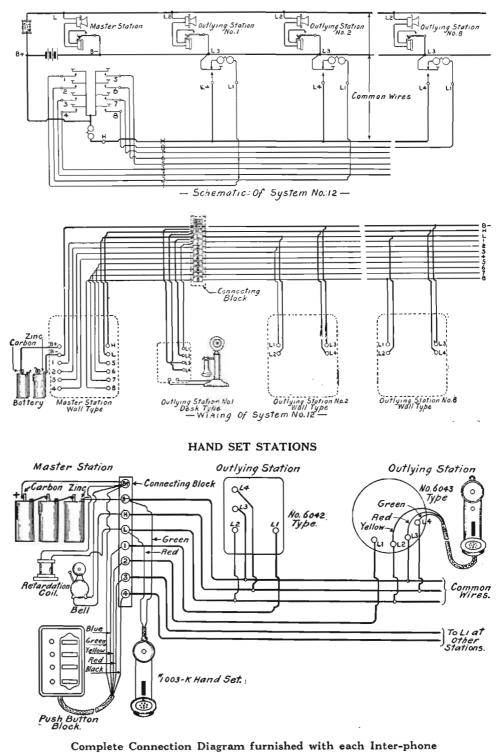
750-1000	feet—No.	20	В.	å	S.	gauge	
1000-1500	feet—No.	18		"		"	
1500-2500	feet-No.	16		"		"	

Schematic No.6043-E Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 16

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Inter-phones and Accessories

INTER-PHONE SYSTEM NO. 12 (Continued) Connection Diagrams and Schematic



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WALL AND DESK SET STATIONS





No. 1324 Type, Wall Set



No. 1325 Type. Wall Set

INTER-PHONE SYSTEM NO. 1

General

For general use where a high grade of intercommunication is desired, System No. 1 is recommended. It permits of any station calling any other, and is absolutely non-interfering. That is to say, as many conversations can be carried on at one time as there are pairs of stations, without any conversation interfering with another. All Inter-phones listed under this system are suitable for either "full metallic" or "common return" wiring. We recommend "full metallic" because of its absolute freedom from cross-talk. There can be as many stations in the system as there are buttons on the Inter-phone sets. No extra button is required for ringing, because each button, when depressed to its extreme position, puts ringing current on the line.

NOTE.-For cabling of a typical Inter-phone system, see page 21.

Wiring

The wiring consists, in full metallic circuits, of 2 No. 22 B. & S. gauge wires for each station, plus 4 No. 16 B. & S. gauge battery wires for the system.

In common return circuits the wiring consists of 1 No. 22 B. & S. gauge wire for each station plus 3 No. 16 B. & S. gauge battery wires for the system.

For example: A 12-station metallic circuit system requires 24 No. 22 B. & S. gauge and 4 No. 16 B. & S. gauge wires.

A 12-station common return system requires 12 No. 22 B. & S. gauge and 3 No. 16 B. & S. gauge wires.

We carry a full line of cable for system No. 1. For information see page 38.

WALL SETS

No. 1324 Type. An all metal set having a hinged face, movable transmitter and hand receiver. Black finish with nickel trimmings. Furnished in 6 and 12-button capacities only.

Equipped with 1 No. 143-AW receiver, 1 No. 311-W transmitter, 1 No. 101398 bell, 1 No. 10-3 foot receiver cord and 1 No. 51-C retardation coil.

Size of case, 63% inches wide by 10 inches long by 31% inches deep.

		List Price
Code No.	Capacity	Each
1324-A	12 buttons	\$18.70
1324 - F	6 buttons	16.45

No. 1325 Type. A flush mounting, all metal set, having hinged face, movable transmitter and hand receiver. Black finish with nickel trimmings. Wall box is metal, detachable and suitable for terminating conduit during construction of building. Made only in 6 and 12-button capacities.

Equipped with 1 No. 143-AW receiver, 1 No. 311-W transmitter, 1 No. 101398 bell, 1 No. 10-3 foot receiver cord and 1 No. 51-C retardation coil.

Size of face plate, 63% inches wide by 10 inches long.

Size of wall box, 5 inches wide by 811 inches long by 25% inches deep.

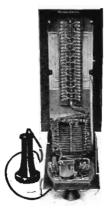
		List Price
Code No.	Capacity	Each
1325 - A	12 buttons	\$18.70
1325-F	6 buttons	16.45

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories .18

Western Electric COMPANY

INTER-PHONE SYSTEM NO. 1 (Continued)





Interior of No. 1355 Set

WALL SETS

No. 1355 Type. A flush mounting, all metal set, having a hinged face, adjustable transmitter [and standard hand receiver. Black finish with nickel trimmings. Wall box is metal, detachable and suitable for terminating conduit during construction of building. Made in 16, 20, and 24 button capacities.

Equipped with 1 No. 143-AW receiver, 1 No. 311-W transmitter, 1 No. 101398 bell, 1 No. 10-3 foot receiver cord and 1 No. 51-C retardation coil.

Size of face plate, $6\frac{7}{8}$ inches wide by $14\frac{1}{2}$ inches long.

Size of wall box, $5\frac{1}{4}$ inches wide by $12\frac{7}{8}$ inches long by $3\frac{11}{32}$ inches deep.

Code No.	Capacity	List Price Each
1355-A	16 buttons	\$24.40
1355-E	20 buttons	26.25
1355-F	24 buttons	28.15



No. 1349 Type. Wall Set

No. 1349 Type. The case is golden oak with black and nickel trimmings. Transmitter is mounted flush. Furnished in 6, 12, 16, 20, and 24 line capacities.

Equipped with 1 No. 143-AW receiver, 1 No. 325-W transmitter, 1 No. 101398 bell, 1 No. 178-3 foot receiver cord and 1 No. 51-C retardation coil.

Size of cabinet: 6 and 12-line capacity, 65% inches wide by 9¾ inches long by 4 inches deep.

Size of cabinet: 16, 20, and 24-line size, 75% inches wide by 13¼ inches long by 4 inches deep.

Code No.	Capacity	List Price Each
1349-A	6 buttons	\$15.75
1349-E	12 buttons	18.00
1349 - F	16 buttons	21.40
1349-G	20 buttons	23.25
1349-H	24 buttons	25.15

WIRING DIAGRAM No'S 1324, 1325, 1349 & 1355 TYPE WALL SETS

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 19

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INTER-PHONE SYSTEM NO. 1 (Continued)

DESK SETS



No. 6016-K. Desk Set

No. 6016 Type. Consists of a No. 328 type metal key box finished in black with nickel trimmings equipped with 1 No. 360116 buzzer and 1 No. 51-C retardation coil; 1 No. 1120-BE black finish desk stand, equipped with 1 No. 329-W transmitter, 1 No. 143-AW receiver, 1 No. 231-6 foot desk-stand cord, and 1 No. 196-2½ foot receiver cord. Cable can enter the key box from underneath or from either end. Made in 6, 12, 16, 20, and 24-line capacities.

Code No.	Capacity	Key Box	List Price Each
6016-K	12 buttons	328-A	\$19.70
6016-L	24 buttons	328-E	27.40
6016-M	6 buttons	328-F	17.25
6016-N	16 buttons	328-G	23.65
6016-P	20 buttons	328-H	25.50

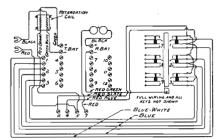
Size of Key Box

Size of key box: 6 and 12-button, 5 inches wide by 7½ inches long by 25% inches deep. Size of key box: 16, 20, and 24 button, 5¼ inches wide by 10¾ inches long by 25% inches deep.

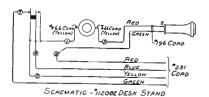
HAND SETS

If it is desired to use a hand set instead of the standard desk stand furnished with the above No. 6016 sets, either the No. 1001-J or 1002-D Hand Sets described on page 39 can be used.

In the majority of cases the No. 1001-J will be found preferable and is recommended.



NO 328-A SUB SET DIAGRAM OF CONNECTIONS



Battery Requirements

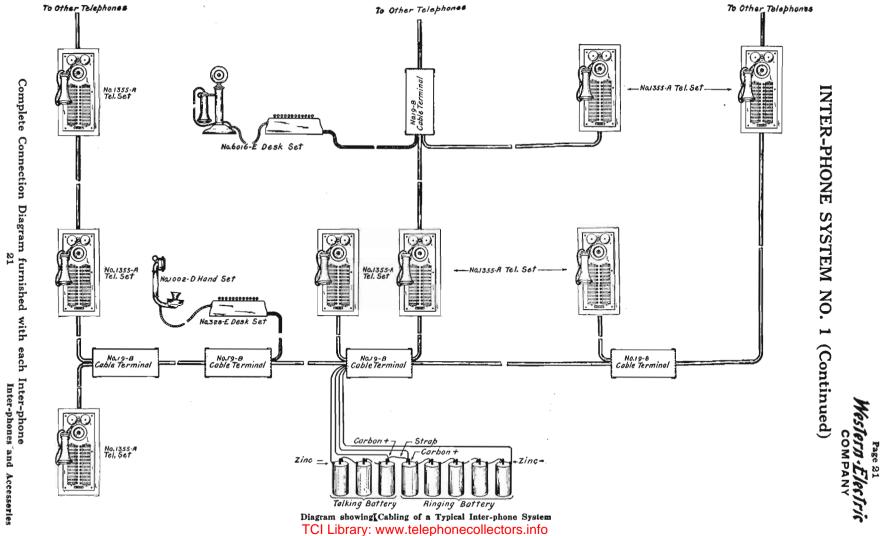
Two separate sets of Blue Bell dry cells are required: 1 set for talking and 1 set for ringing.

Use 5 Blue Bell dry cells for the talking circuit in all cases.

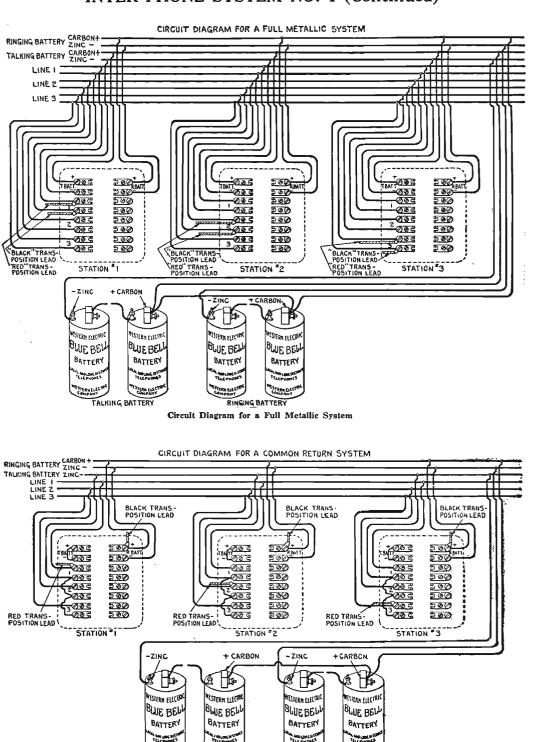
For the ringing circuit, the following number of Blue Bell dry cells will be required when the distance between the stations farthest apart does not exceed the lengths given below. This information is based on the use of standard Inter-phone cable Nos. 164-150, page 38 (No. 22 B. & S. gauge line wires and No. 16 B. & S. gauge battery feed wires).

Lengths of Line	No. of Cells
300 feet	4
1000 feet	5
1500 feet	7

Complete Connection Diagram furnished with each Inter-phone nter-phones and Accessories 20



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INTER-PHONE SYSTEM NO. 1 (Continued)

Circuit Diagram for a Common Return System

STERNELECTR

RINGING BATTERY

STOCI LL

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 22

COMPANY

TALKING BATTERY

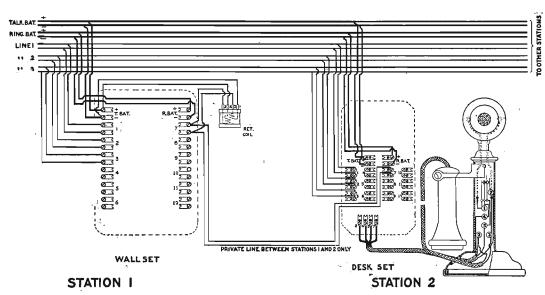
TRNELLC

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INTER-PHONE SYSTEM NO. 4

With Connections for Secret Service

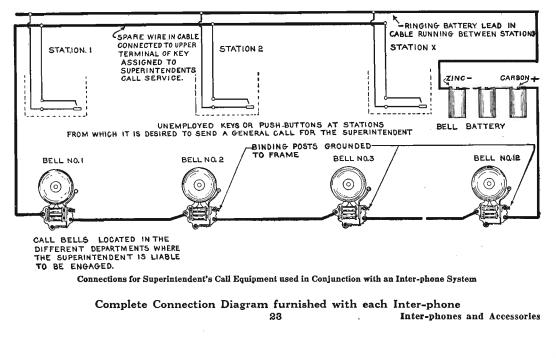
System No. 4 is a modification of system No. 1, which allows of an absolutely secret line between any two stations. It involves the use of a retardation coil, No. 51-C (see page 40), for each secret line installed. The capacity of each set having secret service is reduced one button for each secret line.



Connection for Secret Service between Two Inter-phone Stations

Superintendent's Call

System No. 1 is often used in conjunction with loud-ringing bells, so that a general call can be sent out which will notify certain persons to come to the nearest Inter-phone station. A vacant button may be used at any station for this purpose, or if there are no unused buttons, an ordinary push button can be installed.



Vestern Electric

APARTMENT HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 INTRODUCTORY

At the present time two different methods of communicating between the vestibule and suites of apartment houses are in use, the first being the speaking tube and the second the telephone. Between



the two there is everything to be said in favor of the telephone. Speaking tubes are antiquated because they are unsanitary, unflexible, and un-economical in the long run. The speaking tube does not have one advantage over the telephone for apartment house intercommunication, and the time will come very shortly when speaking tubes will be only a remembrance to architects and builders of apartment houses.

No. 1362. Vestibule Inter-phone with Letter Boxes

General Information. The telephone systems described herein are designed for use in all apartment buildings in which branch exchange telephone switchboards cannot be installed for economic reasons. The systems throughout are planned with the utmost care so that the actual work of installing is reduced to a minimum, and the telephone sets are of neat and attractive design.

The following points are pertinent in their application to apartment house service:

1. The Apartment House Inter-phone System removes the necessity for a hall boy. It is always on the job night or day, and its up-keep is insignificant in comparison with the hall boy's wages.

2. The Apartment House Inter-phone System takes the place of speaking tubes. It does all that speaking tubes can possibly do and in addition is perfectly flexible so that it can be added to with no inconvenience, and is sanitary and economical in the long run. Its cost of installation as compared to the cost of installing a speaking tube system of similar comprehensiveness is much less and the appearance of the vestibule is better.

3. The circuits of Western Electric Apartment House Inter-phone Systems are especially adapted to this class of work, the talking current being fed separately through retardation coils at the janitor's, trades-men's and vestibule Inter-phone sets. The retardation coils are bridged by condensers so that the trans-mission circuits are perfect. There will not be the least interference in conversations taking place simul-taneously between each of the three master stations and three different apartments.

4. A door opener button, in addition to a janitor button, is provided on the Suite Wall Sets, and the circuits are so arranged that the regular telephone ringing battery can be used for operating the door opener, thus eliminating a set of batteries which would otherwise be required.

5. Only two individual wires are required to each apartment and one common wire throughout the system.

6. One Janitor's Equipment can be made to serve any number of vestibules and apartments up to a sum total of seventy, that is to say, if the same janitor serves several buildings, each having one or more vestibule entrances, or one building having several vestibule entrances, but one Janitor's Equipment is required for the whole system.

7. With each telephone set, a complete wiring diagram is furnished.

8. All telephone sets and all accessories necessary for the complete installation are provided with screw connections so that an entire system can be installed without the use of a soldering iron.

APARTMENT HOUSE SYSTEMS

Apartment House Inter-phones are furnished in four different systems as follows:

System No. 7-Provides service between the vestibule and the apartments.

System No.	8-Provides service between the	{ vestibule and the apartments. vestibule and the janitor. apartments and the janitor.
System No.	9—Provides service between the	vestibule and the apartments. vestibule and the janitor. apartments and the janitor. tradesmen and the apartments.

System No. 10—Provides the same service as system No. 9, but on a larger scale.

The systems are flexible, being adapted to expansion from one system into another without making any changes in the apparatus other than supplying additional equipment. Electric door openers can be supplied for any system to be operated by a push button on the suite sets.

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 24

APARTMENT HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)

T'L D.

** / ...

List Price

Each

NON-FLUSH SUITE WALL SETS

Compact golden oak wall sets arranged with either one or two but-tons, as desired. The two-button sets have the buttons marked "Jan." and "Door." The one-button sets are unmarked. Equipped with 1 No. 179-W receiver, 1 No. 294-W transmitter, 1 No. 101319 bell and 1 No. 360-2½ foot receiver cord. Size of cabinet, 5¾ inches wide by 6½ inches long by 3¼ inches deep.

Code No.	Capacity	Each
1327 - N 1327-AB	2 button (marked "Jan." and "Door") 1 button (unmarked)	5.05. 5.10

FLUSH SUITE WALL SETS

Flush mounting metal sets finished regularly in brush brass. Metal wall box is a part of the set. Arranged with either one or two buttons. Equipped with 1 No. 180-W receiver, 1 No. 294-W transmitter, 1 No. 101400 bell, and 1 No. 360-2½ foot receiver cord. Size of face 51 inches wide by 81 inches long. Size of wall box 314 inches wide by 65% inches long by 23% inches deep. See page 29 for method of mounting

method of mounting.

Code No.	Capacity	Each
1339-A	2 buttons (marked "Jan." and "Door")	\$9.75
1339-R	1 button (unmarked)	9.00

SUITE DESK SET

Description

Consists of a No. 1520-BG black finish desk stand with push button in the stem and buzzer in the base, equipped with 1 No. 179-W receiver, 1 No. 302-W transmitter, 1 No. 433- 6 foot desk stand cord, 1 No. 360-3 foot receiver cord and 2 connecting blocks. Only one push button is furnished and is

No. 1327-N. Suite Sets



No. 1339-A. Suite Set



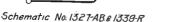
No. 6034-AW. Suite Set

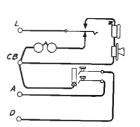
Schematic No. 6034-AW

Aor D

Code No.

6034-AW





Schematic No. 1327-N & 1339-A

Complete Connection Diagram furnished with each Inter-phone 25 Inter-phones and Accessories



APARTMENT-HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)

SUITE HAND SETS

The flush sets are either equipped with one or two ringing buttons. If equipped with one, this ringing button is in the apparatus unit and can be used for either calling the janitor or operating the electric door opener. A separately mounted push button can also be used with this set as described above. If equipped with two buttons, the one in the hand set is used for operating the door opener, and the one in the apparatus unit for calling the janitor.

and series in 15 af a 1.24

It should be noted that the non-flush sets are provided with only one ringing button, which can be used for either calling the janitor or operating the electric door opener. When two ringing buttons are required with the non-flush set, a separate push button, such as our List No. 97675 (page 40), must be used.

FLUSH TYPE

One Ringing Button

Code No. Description List Price 1 No. 382-G Apparatus Unit, containing 1 6042-G Consists of: 15-ohm buzzer, 1 push button and line terminals; 1 No. 1003-C Hand Set..... \$8.10 6042-L Same as No. 6042-G, but complete with 1 No. 110985 Wall Box, size 2" x 3" x 3" deep; 1 No. 12007 Brush Brass "H. & H." Face Plate, size $4\frac{1}{2}'' \ge 2\frac{3}{4}''$ 8.50 Two Ringing Buttons 6042-U Same as No. 6042-G, but with 1 No. 1003-T Hand Set instead of the No. 1003-C Hand Set..... 8.90 6042-W Same as No. 6042-U, but complete with 1 No. 110985 Wall Box, size 2" x 3" x 3" deep; 1 No. 12007 Brush Brass "H. & H." Face Plate, size 4½" x 2¾"..... 9.30

NON-FLUSH TYPE

6043-G Consists of:

1 No. 383-G Apparatus Box, containing 1 15-ohm buzzer and line terminals; 1 No. 1003-P Hand Set..... 8.55

No. 6043-G

Buzz

Blu

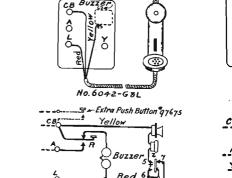
No. 6043-6

Schematic

-Extra Push Button 97675

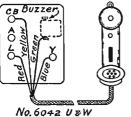
No. 6042-L

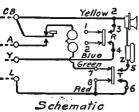
Connection Diagrams and Schematics



G<u>ree</u>

Schematic





Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 26

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APARTMENT, HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued) VESTIBULE SET

No. 1362 Type. Flush mounting, brush brass finish vestibule set, equipped with 1 No. 180-W receiver, 1 No. 294-W transmitter, 1 No. $360-2\frac{1}{2}$ foot receiver cord.

Furnished as listed below in 7, 13, 17, 21, and 25-button sizes. (The odd button is for janitor's line.) Intermediate sizes can be furnished on order at the price of the nearest larger size.

The 7 and 13-button vestibule sets are designed to mount alongside of a group of two-nest letter boxes (No. 12013, page 29).

The 17, 21 and 25-button sets are designed to mount alongside of a group of four-nest letter boxes (No. 116937, page 29).

Size of face plate:

7 and 13-button sets, $7\frac{5}{8}$ inches wide by $11\frac{3}{16}$ inches long.

17, 21, and 25-button sets, 75% inches wide by 161% inches long. Size of wall box:

- 7 and 13-button sets, $5\frac{1}{4}$ inches wide by $8\frac{3}{4}$ inches long by $3\frac{11}{4}$ inches deep.
- 17, 21, and 25-button sets, 51/4 inches wide by 121/8 inches long by $3\frac{1}{32}$ inches deep. Tint Dates

Capacity	Each
7 buttons	24.50
13 buttons	27.50
17 buttons	30.00
21 buttons	32.95
25 buttons	35.85
	7 buttons 13 buttons 17 buttons 21 buttons

JANITOR'S SET

No. 1350 Type. Golden oak cabinet with nickel and black trimmings.

Equipped with 1 No. 179-W receiver, 1 No. 294-W transmitter, 1 No. 360-21/2 foot receiver cord and 1 No. 1-L resistance coil. No ringer is provided, as a bell is furnished with the annunciator which must be used with this set.

Furnished as listed below in 7, 13, and 25-button sizes only. (The odd button is for the vestibule line.)

Size of cabinet:

7 and 13-button sets, 65% inches wide by 934 inches long by 4 inches deep. 25-button set, 75% inches wide by 131/4 inches long by 4 inches deep.

\$13.00 15.25 19.75

JANITOR'S ANNUNCIATOR

This annunciator is required to indicate to the janitor which line called. Furnished in oak as standard, but other finishes can be furnished on order at slight increase in price.

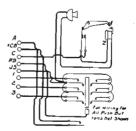
Code No.	No. of Drops	Arrangement of Drops	List Price Each
361332	4	1 horizontal row	\$ 4.20
361333	6	2 horizontal rows	5.55
361334	8	2 horizontal rows	7.45
361335	10	2 horizontal rows	8.75
361336	12	2 horizontal rows	10.30
361337	15	3 horizontal rows	12.70
361338	18	3 horizontal rows	15.75
361339	25	5 horizontal rows	21.00

Complete Connection Diagram furnished with each Inter-phone 27

Inter-phones and Accessories



No. 1362-Type. Vestibule Set



Schematic Nois 1362-DEFGaH







iPage 27 Western Electric COMPANY

VESTIBULE SET No. 1362 Type. Flush mounting, brush brass finish vestibule set,

equipped with 1 No. 180-W receiver, 1 No. 294-W transmitter, 1 No. $360-2\frac{1}{2}$ foot receiver cord.

APARTMENT, HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)

Furnished as listed below in 7, 13, 17, 21, and 25-button sizes. (The odd button is for janitor's line.) Intermediate sizes can be furnished on order at the price of the nearest larger size.

The 7 and 13-button vestibule sets are designed to mount alongside of a group of two-nest letter boxes (No. 12013, page 29).

The 17, 21 and 25-button sets are designed to mount alongside of a group of four-nest letter boxes (No. 116937, page 29).

Size of face plate:

7 and 13-button sets, $7\frac{5}{8}$ inches wide by $11\frac{3}{16}$ inches long.

17, 21, and 25-button sets, 75% inches wide by 161% inches long. Size of wall box:

- 7 and 13-button sets, $5\frac{1}{4}$ inches wide by $8\frac{3}{4}$ inches long by $3\frac{11}{2}$ inches deep.
- 17, 21, and 25-button sets, 51/4 inches wide by 121/8 inches long by 311 inches deep. T: + Price

Capacity	List Price Each
7 buttons	24.50
13 buttons	27.50
17 buttons	30.00
21 buttons	32.95
25 buttons	35.85
	7 buttons 13 buttons 17 buttons 21 buttons

JANITOR'S SET

No. 1350 Type. Golden oak cabinet with nickel and black trimmings.

Equipped with 1 No. 179-W receiver, 1 No. 294-W transmitter, 1 No. 360-21/2 foot receiver cord and 1 No. 1-L resistance coil. No ringer is provided, as a bell is furnished with the annunciator which must be used with this set.

Furnished as listed below in 7, 13, and 25-button sizes only. (The odd button is for the vestibule line.)

Size of cabinet:

7 and 13-button sets, 65% inches wide by 934 inches long by 4 inches deep. 25-button set, 75% inches wide by 131/4 inches long by 4 inches deep.

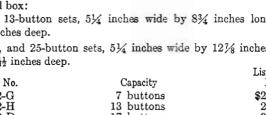
, , , , ,		0.0	
			List Price
Code No.	Capacity		Each
1350-A	7 buttons		\$13.00
1350-E	13 buttons		15.25
1350-G	25 buttons		19.75

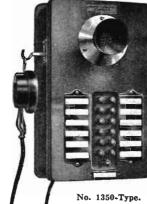
JANITOR'S ANNUNCIATOR

This annunciator is required to indicate to the janitor which line called. Furnished in oak as standard, but other finishes can be furnished on order at slight increase in price.

Code No.	No. of Drops	Arrangement of Drops	List Price Each
361332	4	1 horizontal row	\$ 4.20
361333	6	2 horizontal rows	5.55
361334	8	2 horizontal rows	7.45
361335	10	2 horizontal rows	8.75
361336	12	2 horizontal rows	10.30
361337	15	3 horizontal rows	12.70
361338	18	3 horizontal rows	15.75
361339	25	5 horizontal rows	21.00

Complete Connection Diagram furnished with each Inter-phone 27



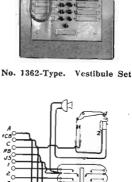




占 Janitor's Annunciator

TCI Library: www.telephonecollectors.info

Inter-phones and Accessories



Schematic Nois 1362 D.E.F.G.H

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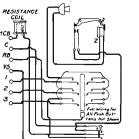
APARTMENT HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)

JANITOR'S TELEPHONE SWITCHBOARD

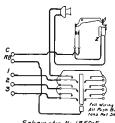


Janitor's Telephone Switchboard





Schematic Nos 1350 A.E.C.



Schematic No. 1350-F

Inter-phones and Accessories

In case one janitor must serve more than one vestibule, it is necessary to use this switchboard which combines the functions of the No. 1350 type set and the annunciator described on page 27. In other words, when there are several vestibule lines running to the janitor's equipment, this switchboard must be used. Number of vestibule drops must be specified. Prices do not include Hand Set. See note.

	to mot motado i		
Code No.	No. of Drops	Arrangement of Drops	List Price Each
1040	10	2 Horizontal Rows	\$37.55
1041	14	2 Horizontal Rows	50.00
1042	18	2 Horizontal Rows	57.00
1043	20	2 Horizontal Rows	61.30
1044	24	2 Horizontal Rows	73.35
1045	30	3 Horizontal Rows	85.45
1046	36	3 Horizontal Rows	102.50
1047	42	3 Horizontal Rows	119.20
1048	48	4 Horizontal Rows	136.30
1049	56	4 Horizontal Rows	153.35
1050	60	5 Horizontal Rows	164.20
1051	70	5 Horizontal Rows	191.30

NOTE.—Hand Set No. 1002-E, page 39 or No. 1003-K, page 34, can be used with this annunciator and must be ordered separately.

TRADESMEN'S SETS

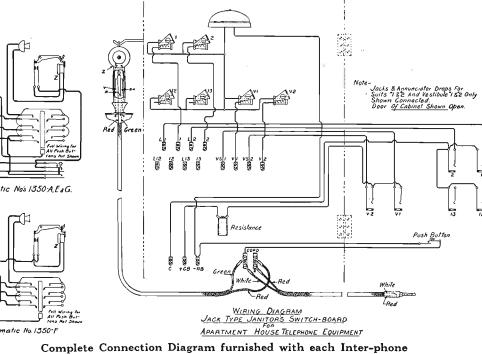
Golden oak cabinet with nickel and black trimmings. No bell is provided, as the apartments will not want to call this station. Size of cabinet No. 1350-A and E, 65% inches wide by 93% inches long by 4 inches deep. Size of cabinet No. 1350-F, 75% inches wide by 131\% inches long by 4 inches deep. Furnished in 7, 13, and 24 button sizes. List Price

Code No.	Capacity	Description
1350-A	7 buttons	See page 27
1350-E	13 buttons	See page 27
1350-F	24 buttons	Equipment same as
1350-F	24 buttons	Equipment same as

\$13.00 15.25Nos. 1350-A or E, except that the janitor's button and No. 1-L resistance coil are omitted.....

19.00

Each



28

TCI Library: www.telephonecollectors.info

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APARTMENT HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)

COIL AND CONDENSER BOX

Furnished in golden oak only. One coil and condenser are required for each master station (vestibule, janitor, or tradesmen). List Price

Code No.		Capacity	Each
295-AS 2	coils and 2	condensercondensers	4.65

LETTER BOXES

Two sizes of letter boxes can be furnished: No. 12013 (two nest) and No. 116937 (four nest).

The face plates of these boxes are finished in brush brass to They are suitable for mounting on either match the vestibule set. side of the vestibule set.

The 2 nest letter boxes are designed to mount alongside of the 7 and 13-button vestibule set.

The 4 nest letter boxes are designed to mount alongside the 17, 21 and 25-button vestibule set.

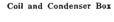
For dimensions of letter boxes see pages 30 and 31.

Battery Requirements

Two separate sets for Blue Bell dry cells are required: 1 set or talking and 1 set for ringing. Use five Blue Bell dry cells for the talking battery in all cases

For the ringing battery the following number of dry cells will be required when the distance from the battery to the farthest station does not exceed the lengths of line as listed below. This information is based on the use of standard inter-phone cable Nos. 164-150, page 38, or No. 19 B. & S. gauge wire:

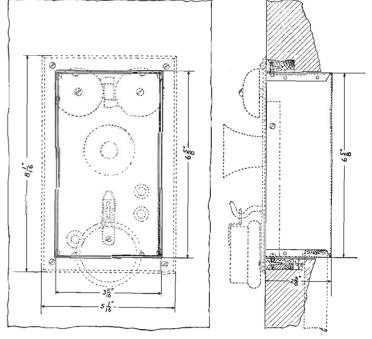
100 feet—3 cells 200 feet-4 cells 300 feet—5 cells 500 feet-6 cells



Western Electric



No. 12013



List Price

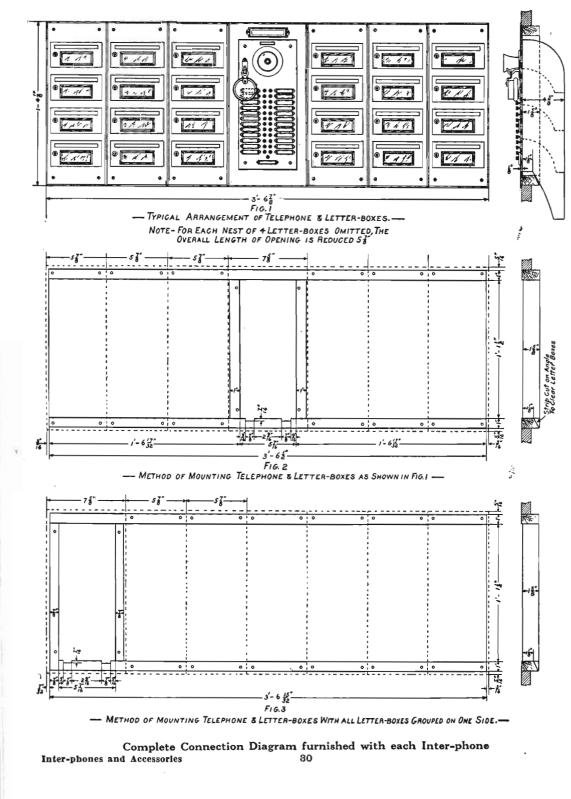
Method of Mounting the No. 1339-A and R flush Suite Sets Complete Connection Diagram furnished with each Inter-phone 29 Inter-phones and Accessories

No. 116937

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APARTMENT HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)

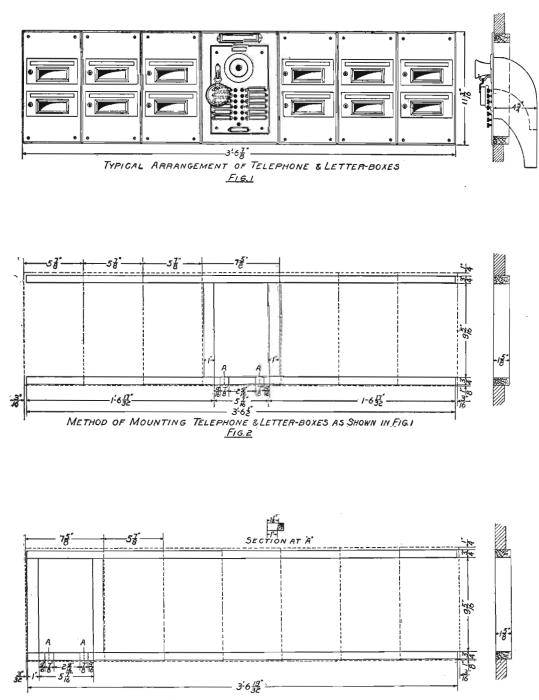
MOUNTING NO. 1362-D, E AND F SETS AND FOUR NEST LETTER BOXES



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APARTMENT HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)

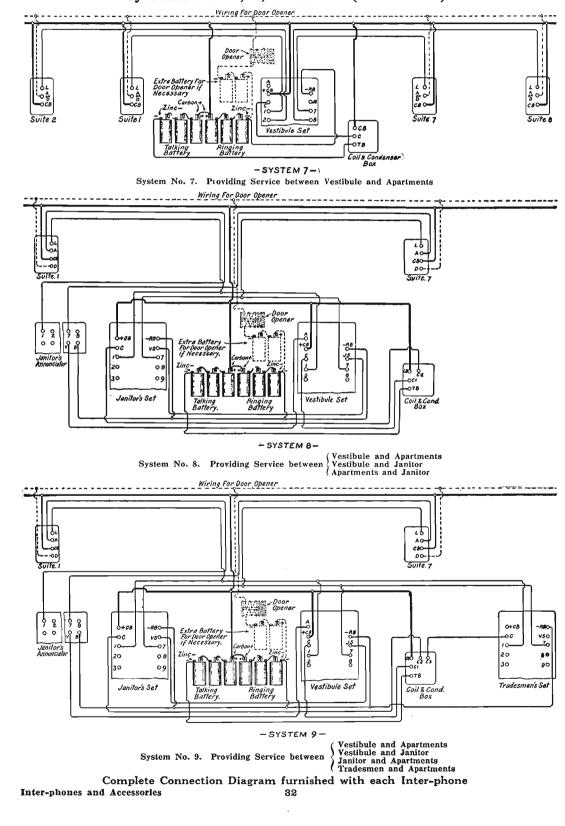
MOUNTING NO. 1362-G AND H SETS AND TWO NEST LETTER BOXES

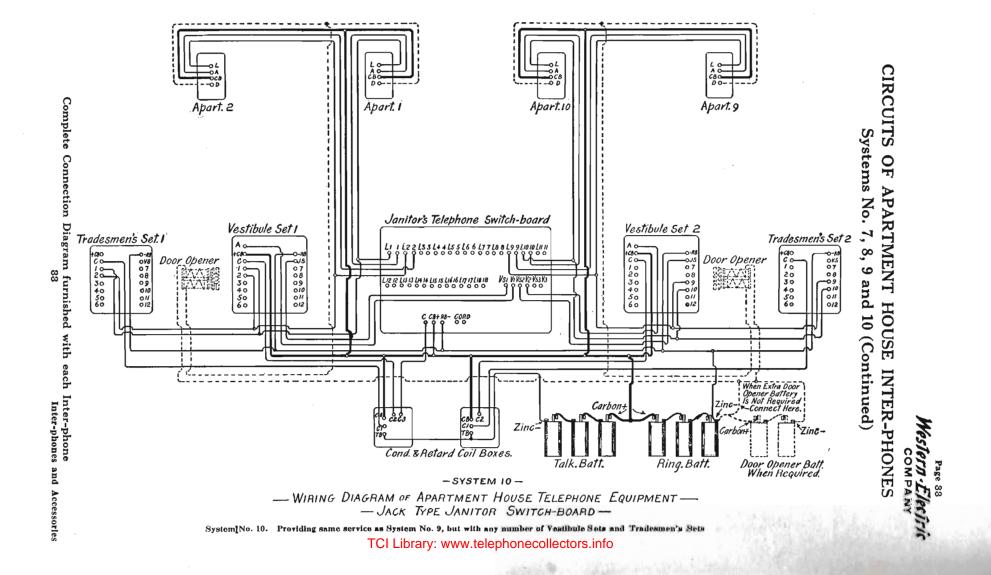


METHOD OF MOUNTING TELEPHONE & LETTER-BOXES WITH ALL LETTER-BOXES GROUPED ON ONE SIDE FIG.3

Complete Connection Diagram furnished with each Inter-phone 31 Inter-phones and Accessories Page 32 *Western Electric* COMPANY

CIRCUITS OF APARTMENT HOUSE INTER-PHONES Systems No. 7, 8, 9 and 10 (Continued)







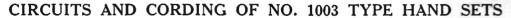
HAND SETS

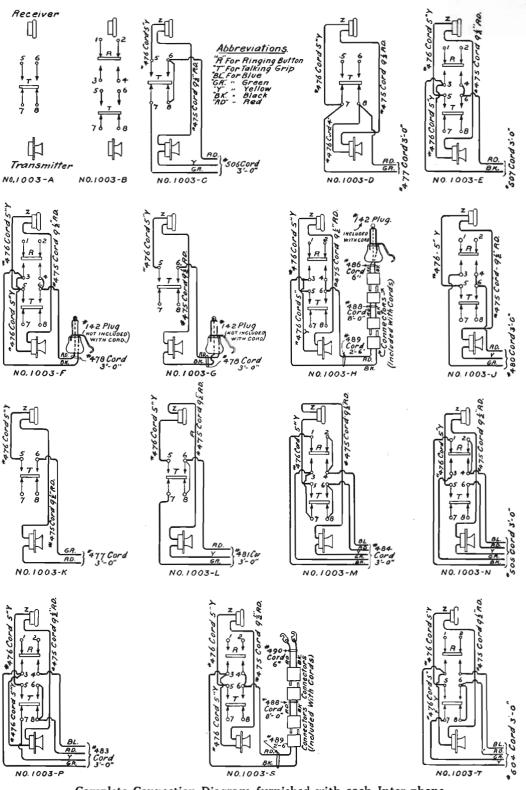
No. 1003 Type

See Page 35 for Cording and Circuit Information

003-A 003-B 003-C 003-D 003-E 003-F 003-F 003-G 003-H	A B A B B A B	None No. 506 3 ft. No. 477 3 ft. No. 507 3 ft. No. 478 3 ft. No. 478 3 ft. 1 No. 489 2½ ft.		Flush Suite Stations-Apartment House Sys- tems Nos. 7, 8, 9, and 10 Master Station-System No. 16 Non-Flush Outlying Stations-System No. 16 Flush Outlying Stations-System No. 16	\$4.50 5.10 5.00 4.90 5.50
003-B 003-C 003-D 003-E 003-F 003-G	B A B B A	None No. 506 3 ft. No. 477 3 ft. No. 507 3 ft. No. 478 3 ft. No. 478 3 ft.	None None None No. 142	Flush Suite Stations-Apartment House Sys- tems Nos. 7, 8, 9, and 10 Master Station-System No. 16 Non-Flush Outlying Stations-System No. 16 Flush Outlying Stations-System No. 16	5.10 5.08 4.98 5.58
003-C 003-D 003-E 003-F 003-G	A B B A	No. 506 3 ft. No. 477 3 ft. No. 507 3 ft. No. 478 3 ft. No. 478 3 ft.	None None No. 142	Flush Suite Stations-Apartment House Systems Nos. 7, 8, 9, and 10Master Station-System No. 16Non-Flush Outlying Stations-System No. 16Flush Outlying Stations-System No. 16	5.03 4.93 5.53
003-D 003-E 003-F 003-G	A B B A	No. 477 3 ft. No. 507 3 ft. No. 478 3 ft. No. 478 3 ft.	None None No. 142	tems Nos. 7, 8, 9, and 10 Master Station-System No. 16 Non-Flush Outlying Stations-System No. 16 Flush Outlying Stations-System No. 16	$\frac{4.95}{5.55}$
003-E 003-F 003-G	B B A	No. 507 3 ft. No. 478 3 ft. No. 478 3 ft.	None No. 142	Master Station-System No. 16 Non-Flush Outlying Stations-System No. 16 Flush Outlying Stations-System No. 16	$\frac{4.95}{5.55}$
003-E 003-F 003-G	B B A	No. 507 3 ft. No. 478 3 ft. No. 478 3 ft.	None No. 142	Non-Flush Outlying Stations-System No. 16 Flush Outlying Stations-System No. 16	5.5
003-F 003-G	B A	No. 478 3 ft. No. 478 3 ft.	No. 142	Flush Outlying Stations-System No. 16	
003-G	Α	No. 478 3 ft.			
			No. 142		6.9
003-н	в	1 No. 489 21/6 It. 1		Flush Outlying Stations-System No. 12	6.2
		1 No. 488 8 ft. > 1 No. 486 6 in.	No. 142	Flush Outlying Stations-System No. 16	9.1
002 T	ъ		None	Non Eluch Outbring Stations System No. 12	5.6
003-J 003-K	В	No. 480 3 ft.	None	Non-Flush Outlying Stations-System No. 12.	0.0
003-1	A	No. 477 3 ft.	None	Flush Non-Retardation Coil Stations-System	
		1			
					4.9
003-L	Α	No 481 3 ft.	None		
)		1801 Switchboards Systems A. & B	5.0
003-M	В	No. 484 3 ft.	None	1	5.8
003-N	в	No. 505 3 ft.	None		
					5.8
003-P	в	No. 483 3 ft.	None		
			1	Systems No. 7, 8, 9, and 10	5.7
003-S	B	1 No. 489 2½ ft.			
	l	1 No. 488 8 ft. >	None	Non-Flush Outlying Stations-System No. 16	7.7
		1 No. 490 6 in.			
003-T	В		None	Flush Suite Stations-Apartment House Sys-	
			8		1
					5.8
				specific and abor opender the territer	0.0
	003-L 003-M 003-N 003-P 003-S	003-L A 003-M B 003-N B 003-P B 003-S B	003-L A No 481 3 ft. 003-M B No. 484 3 ft. 003-N B No. 505 3 ft. 003-P B No. 483 3 ft. 003-S B 1 No. 489 21/2 ft. 1 No. 488 8 ft. 1 No. 490 6 in.	003-L A No 481 3 ft. None 003-M B No. 484 3 ft. None 003-N B No. 505 3 ft. None 003-P B No. 483 3 ft. None 003-S B 1 No. 483 8 ft. None	003-LANo. 481 3 ft.No. 15—Master Station-System No. 12. All Stations-System No. 11. Janitor's Switchboard System No. 10. Hotel Annunciator Switchboards Nos. 1031 to 1039 (see switchboard Sales Letter No. 1001- 30)—and No. 1801 Switchboards Systems A. & B.003-LANo 481 3 ft.None003-LBNo. 484 3 ft.None003-MBNo. 505 3 ft.None003-PBNo. 483 3 ft.None003-SB1 No. 489 2½ ft. 1 No. 488 8 ft. 1 No. 490 6 in.NoneNoneNon-Flush Suite Stations-Apartment House Systems No. 7, 8, 9, and 10.

Western Electric





Complete Connection Diagram furnished with each Inter-phone

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Inter-phones and Accessories



MECHANICAL SIGNALING SYSTEMS

General



No. 1-A. Signaling Set

APPLICATION. In every factory or manufacturing plant, it is often necessary to communicate immediately with the manager, superintendent or other executive who is not at his desk or within hearing range of his telephone bell at the moment.

In schools the principal, his assistant or the janitor are frequently wanted when they may be in any one of several places about the building.

In hospitals the house doctor or head nurse may be wanted in a hurry when they are on their rounds.

In prisons or asylums, the superintendent, warden, head keeper, or other official is apt to be suddenly wanted on an important matter.

To call the different telephones in the building or about the plant, one at a time, in order to locate the desired individual, or to send a messenger

in case a telephone system is not a part of the equipment, frequently takes several minutes, but with a mechanical signaling system installed, the operator, clerk or other employee in the office or other central point reaches out and gives a turn to the key marked with the name

DESCRIPTION. This signaling system consists of a number of bells or buzzers scattered about the plant and rung simultaneousy by a signaling set.

of the individual wanted which instantly signals the person desired no matter where he may be.

The signaling set consist of an oak cabinet in which is mounted a number of mechanical sending keys, each one designed (when started) to make and break an electric current supplied by a battery a different number of times and in different combinations, thus producing a predetermined set of code rings, such as three short, four short, one short, a pause and two short, etc.

By placing the bells in such locations that no matter where a person may be, he will always be within hearing distance of some one of them, and installing a signaling set equipped with as many keys as there are individuals in the organization who are frequently wanted on important matters, a call can be sent out for any one of them by turning the proper key. On hearing his call the person wanted steps to the nearest telephone and is in communication with the office in an incredibly short space of time.



Skeleton Type Bell

Systems can be furnished with keys for sending out 4, 6 or 10 different signals, thus producing calling facilities for ten persons, which is usually all that average conditions require.

Mechanical signaling systems can be used alone or in the following combinations:

1. With Intercommunicating Telephone Systems. These signaling sets can be connected directly to Inter-phone system No. 1 without any change in the wiring of the instruments, extra wire or special bells. In this case the regular bells on the instruments respond to the code signals simultaneously when any of the calling keys are set in motion.

In case, however, loud ringing bells are required, or bells in locations where telephones are not installed, it will be found more satisfactory to install this system independently of any other equipment as later described.

2. Independently. This system can be installed and operated entirely separate and apart from any other system, and requires only two

wires for its operation. As many bells as desired can be connected and made to simultaneously sound any desired signal by turning the proper key.

When installed where a telephone system is not in use, with perhaps the exception of one located in the office or some other central point, the signals can be understood to mean that the called party is wanted at the office.

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MECHANICAL SIGNALING SYSTEMS (Continued)

3. With Private Exchange or Private Branch Exchange Telephone Systems. A mechanical signaling system, when installed in connection with telephone systems of this class, should be put in as a separate system without special regard for the location of the various telephone instruments, the object being rather to so locate the bells that they will be best heard from every nook and corner of the plant.

It will, of course, be found possible in some cases, where the telephone wires are carried in a cable, to use available spare wires, and the key cabinet can be mounted on or near the switchboard if desired, where it will be convenient for the operator.

Signaling Sets

The cabinets are made of golden oak, quarter-sawed. The face is metal finished in dull black with nickel trimmings. The sets are made only in 4 and 6 key sizes (each key providing a different signal), but they can be mounted side by side when 8 or 10 signals are required.

Code No.	No. of Signals	Description	List Price, Each
1-A	4	Used for 4 signals	\$51.70
1- B	4	Used with No. 1-A for 8 signals	51.70
1-C	4	Used with No. 2-A for 10 signals	51.70
2-A	6	Used for 6 signals	66.70
2 - B	6	Used with No. 1-A for 10 signals	66.70



No. 2-A. Signaling Set

Each of the above Code Signaling Sets may be ordered partially equipped. Deduct for each key omitted, list \$5.45.

Coil, Condenser and Relay Boxes

With each Code Signaling Set a resistance coil and condenser box, No. 262-F, is required to prevent excessive sparking at the contacts. This box is made of quarter-sawed oak to match the set.

A relay box is necessary under certain conditions, such as combining large and small bells or buzzers on the same line. This box contains a resistance coil and a condenser in addition to the relay. It is similar in appearance to the No. 262-F, and is known as the No. 262-G Relay Box.

Code No.	Description	List Price, Each
262-F Coil and		
Condenser Box	Used to prevent sparking at contacts	\$4.20
262-G Relay Box	Used to combine large and small bells	7.50



No. 262-F. Coil and Condenser Box

Connection Diagrams

No Connection Diagrams are given for the reason that there are so many different signaling systems in which the Code Signaling Sets are applicable. We furnish, on application, detail information covering the use of these sets with Inter-phones and with large and small bells and buzzers in series and in multiple. If your requirements are stated, we will be very glad to work up a suitable signaling system and make you a quotation.



INTER-PHONE ACCESSORIES



Cable

Three general types of cable are provided. Each type has its particular use, and care should be taken to order the proper cable for any desired purpose. These types are as follows:

¹ 1. Interior cable with outside braiding treated with gray fireproof paint. Use only in dry places.

2. Interior cable with green glazed cotton outside braiding. Use only in dry places where exposed to view.

3. Outside cable, lead covered. Always use this cable outside, and *inside in every case where there is apt to be moisture* even in a small degree.

Lead-covered cables are not listed with separate code numbers. Any fire-proofed type of cable may be ordered with a lead sheath.

⁶ All cables are provided with a standard color scheme, so that each conductor can be distinguished from any other. The pairs are properly twisted to prevent inductive disturbances.

CABLES FOR SYSTEMS NO. 11 AND NO. 12

Code No.	Conductors No. 22 B. &		Covering	Approx. Outside Dim.	List Price Per 100 Feet
161	8	4 button system	Fire-proof Braid	5 inch	\$ 5.25
161 (Lead)	8	4 button system	Lead Sheath	$\frac{5}{16}$ inch	9.55
142	8	4 button system	Green Cotton Braid	$\frac{5}{16}$ inch	4.50
162	12	8 button system	Fire-proof Braid	🔢 inch	6.75
162 (Lead)	12	8 button system	Lead Sheath	⅔ inch	10.30
163	12	8 button system	Green Cotton Braid	25 inch	9.00

CABLES FOR SYSTEMS NOS. 1-4-7-8-9-10

Code No.					Conducto & S. Ga				Covering	Approx. Outside Dim.	List Price Per 100 Feet
164	6 :	singles	No. 22,	2 pair	No. 16,	2 spare	single	No. 22	Fire-proof Braid	13 in.	\$11.50
164 (Lead)	6	"	"	""	"	"	"	"	Lead Sheath	$\frac{13}{32}$ in.	13.15
165	6	"	"	"	"	"	"	"	Green Cotton Braid	3⁄8 in.	12.00
134	6	pair	"	"	"	"	" "	46	Fire-proof Braid	$\frac{13}{32}$ in.	11.25
134 (Lead)	6	"	"'	"	"	"	"	**	Lead Sheath	$\frac{7}{16}$ in.	15.15
155	6	"	"	"	""	"	" "	"	Green Cotton Braid	$\frac{13}{32}$ in.	12.00
141	12	"	"	"	"	"	"	"	Fire-proof Braid	$\frac{7}{16}$ in.	14.25
141 (Lead)	12	"	"	" "	""	"	" "	" "	Lead Sheath	$\frac{1}{2}$ in.	19.75
156	12	"	"	" "	"	"	"	"	Green Cotton Braid	17 in.	17.50
157	16	"	"	" "	"	"	"	"	Fire-proof Braid	🔢 in.	17.25
157 (Lead)	16	"	"	"	"	"	"	"	Lead Sheath	$\frac{9}{16}$ in.	22.95
159	16	"	"	""	"	"	"	"	Green Cotton Braid	$\frac{17}{32}$ in.	19.50
158	20	"	"	"	"	"	" "	"	Fire-proof Braid	9 in.	20.25
158 (Lead)	20	"	"	"	"	"	""	"	Lead Sheath	12 in.	27.70
160	20	**	**	"	44	"	"	"	Green Cotton Braid	⁹ / ₁₆ in.	22.50
136	24	"	"	"	"	"	"	"	Fire-proof Braid	$\frac{19}{32}$ in.	23.25
136 (Lead)	24	"	" "	"	"	"	" "	"	Lead Sheath	5/8 in.	28.65
150	24	"	""	"	"	"	"	"	Green Cotton Braid	$\frac{9}{16}$ in.	23.50
		C	late Ca		: D:		£	المحمل	the apple Inter - has		

Complete Connection Diagram furnished with each Inter-phone

Inter-phones and Accessories

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INTER-PHONE ACCESSORIES

Cable Terminals

The No. 19 type cable terminal is admirably suited for interior distributing work. It was designed after a great deal of study, and is thought to be the best of its kind on the market. Made of hard wood, numbered and shellacked, and equipped with a japanned sheet metal cover.

Code No.	Capacity in Pairs	Length	Width	Depth	List Price Each
19-A 19-B	$\frac{14}{26}$	8 in. 14 in.	$5\frac{1}{8}$ in. $5\frac{1}{8}$ in.	$2\frac{1}{2}$ in. $2\frac{1}{2}$ in.	\$2,30 3,00

Connecting Blocks

Brass studs embedded in a hard composition base. Studs fitted with two nuts (one a split check nut) and two washers.

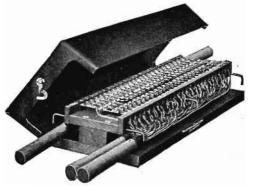
Code No.	Capacity in Pairs	Length	Width	List Price Each
6-A	7	$5\frac{5}{8}$ in.	17/8 in.	\$.53
6-B	11	85/8 in.	17⁄8 in.	.71
6-C	16	123⁄8 in.	$1\frac{7}{8}$ in.	.98
6-D	21	16½ in.	$1\frac{7}{8}$ in.	1.35
6-E	26	197⁄8 in.	$1\frac{7}{8}$ in.	1.65

Code No.

1001-J

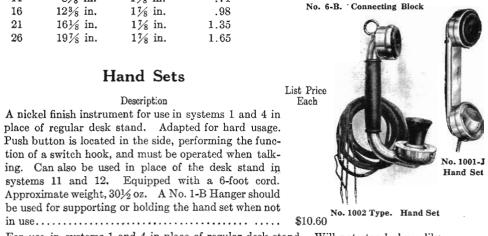
Hand Sets

Description



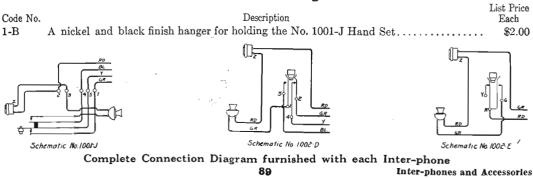
No. 19-B. Cable Terminal





For use in systems 1 and 4 in place of regular desk stand. Will not stand abuse like 1002-D No. 1001-J. Switch hook is located in the handle and operates automatically...... \$8.20 For use in system 10 in connection with janitor's switchboard. Can also be used in 1002-E place of regular desk stand in systems 11 and 12..... 8.05 1003 See page 34 for description and price.

Hand Set Hanger







No. 1320-BF. Desk Stand



No. 147-AC. Desk-Stand Arm

Code No

51-C





No. 360799 Push Button

INTER-PHONE ACCESSORIES

Desk Stands (Continued)

Description

List Price Each

Code No. 1320-BF Standard black finish stand for use in place of

1002-E Hand Set with janitor's switchboard, sys-\$6.90 tem 10. Also used in systems 11 and 12....

Desk Stand Arms

An exceptionally strong collapsible arm for holding standard desk stands. Arm is provided with three different bases to adapt it to mount on flat or roll top desks, or on the wall. Can be used with any system if the proper desk stand is selected. Length of arm closed, 8¼ inches. Length of arm extended, 23 inches. The desk stand must be ordered separately.

List Price Each Code No Description Arm for roll top desk..... Arm for mounting on wall..... Arm for flat top desks and tables (like cut)..... \$5.25 147-AA 147-AB 5.25147-AC 5.25

Superintendent's Call Bells

We find the well-known Faraday bell to be the best bell for superin-tendent's call and code signaling service. Only two styles and sizes are listed below, but we carry a full stock of all types, resistances and sizes, both vibrating and single stroke. List Price

List No. Description Ea	
360929 6-inch Vibrating weatherproof type, 2.1 ohms 361141 6-inch Single Stroke open type, 2.1 ohms	4.88 3.50 3.50 1.00

Push Button

List No.	Description	Each
360799	Wood push button	.10

Retardation Coils

Description	Each
Coil for use in connection with secret lines, system	
4. Has two 50-ohm windings, which are not con-	
nected together. Size over all, 11/8 inches diameter	

Lint Dring

List Price

by 11/2 inches high..... Coil for use in systems 11 and 12. Same as No. \$.45 51-E 51-C, but mounted on a maple base having screw terminals. Windings connected in series..... .60



Superintendent's Call Bell Open Type No. 360883 Superintendent's Call Bell [Closed Type No. 360929 No. 51-C. Retardation Coil

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\$.25

Price

INTER-PHONE ACCESSORIES

Extension Bell

List Price Code No. Description Each This bell is wound to 10 ohms, and may be used as an extension bell for any Inter-phone system. It should also be used for any separate signaling circuit, such as a door-bell operating from the Inter-phone batteries..... 11-B \$.70 Blue Bell Battery Description

This dry cell is specially made for telephone work, and for this purpose is the most satisfactory cell on the market. Size over all, $2\frac{5}{3}$ inches by $6\frac{3}{4}$ inches. Regular binding post cells or screw top cells furnished as ordered. Less than 12..... 12 or more.....On request

Freight additional

Battery Boxes

	-	List Price
Code No.	Description	Each
1-A	Black japanned sheet metal box lined with an insulating material. Holds 3 Blue Bell dry cells. Size of box, $8\frac{3}{4}$ inches long by $3\frac{1}{32}$ inches wide by $7\frac{3}{8}$ inches	
	high	\$.75
2-A	Similar to the No. 1-A. Holds 4 Blue Bell dry cells. Size of box, $12\frac{19}{64}$ inches long by $3\frac{7}{32}$ inches wide by $7\frac{3}{33}$ inches high.	
2-B	Similar to the No. 1-A. Holds 9 Blue Bell dry cells. Size of box, $14\frac{5}{52}$ inches long by $5\frac{32}{54}$ inches wide by $7\frac{5}{58}$ inches high	
	Waxed Cord	

	Waneu Colu	
		List Pric
No.	Description	Each

List No.	Description	Each
94059	Twelve strand linen for sewing cables, per lb	\$2.20

Bell-Ringing Transformer

		List Price
List No.	Description	Each
360261	Self-contained unit for use on 60 cycle alternating circuits at 100-125 volts. May be used for ringing the bells on systems 1 and 4. Not suitable for use in any other system. Delivers current at three voltages, 6, 12, and 18.	
Cannot	be used for furnishing talking current.	

RINDING LEADS IN CABLE

TALKING BATTERY LEADS IN GABLE

MATING CURRENT 60 LYCLE

CADET TYPE

BTRAP

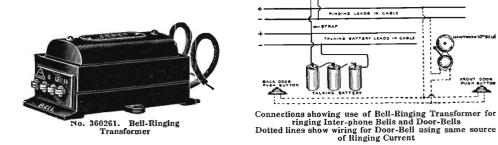
Complete Connection Diagram furnished with each Inter-phone 41 Inter-phones and Accessories



No. 11-B. Extension Bell



No. 1-A. Battery Box





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INTER-PHONE ACCESSORIES (Continued)

PIPE STRAPS-TINNED

These are very useful in supporting Inter-phone cable, conduit, etc.

List No.	Size		Std. Pkg.	List Price per 100
580905 580906 580907 580008	¹ / ₂ inch Pipe Strap ³ / ₄ inch Pipe Strap		100 100 100 50	\$1.00 1.00 1.50 2.00
580909	1¼ inch Pipe Strap	• • • • • • • • • • • • • • • • • • • •	$\frac{50}{25}$	$2.00 \\ 2.50 \\ 3.00$

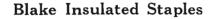




IRON CONDUIT AND FITTINGS

We carry large stocks of both galvanized and enameled iron conduit and conduit fittings such as bushings, locknuts, etc. Consult our general supply catalog and write for market prices.

Iron Conduit





Designed for use on all low voltage circuits of interior wiring, such as telephone, telegraph, messenger call, annunciator, and bell work.

Mfr. No.		ist Price er 1000
1	For Hardwood, for Single and Twisted Pair Wire	
3	For General Use, for Single and Twisted Pair Wire	2.60
5	For Hardwood, for Twisted 3 Wire and Extra Heavy Pair Wire	2.90
6	For General Use, for Twisted 3 Wire and Extra Heavy Pair Wire	2.90
$\overline{7}$	For Soft Wood, for Twisted 3 Wire and Extra Heavy Pair Wire	2.90



Furnished in $\frac{1}{2}$ lb. rolls and in widths varying from $\frac{1}{2}$ " to 3". Black or white.

	List Price
List No.	per lb.
46000 0	Western Electric "Victor," 34" wide \$0.80

Milonite Nails

"Milonite" Perfection Insulated Nails.

Diameter of head in four sizes. Length of nail to suit. Prevent short circuiting. Color matches wire or wall. Wire can be taken down without cutting or injuring insulation.



Interior Telephone Wire

Insulating Tape

List No.		st Price er 1000
580920	15 Nails (Plain Top)	\$1.20
580921	18 Nails (Plain Top)	1.20
580922	20 Nails (Plain Top)	1.95
580923	22 Nails (Plain Top)	1.95

TELEPHONE WIRES

We carry a wide variety of insulated wires for both interior and outdoor service, in single conductors, twisted pairs and triples.

Full information and prices on wire, to suit any condition, on request.

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 42

company

PATTERSON BATTERY SETS For Inter-phone Service



Screw Top Cells: A Screw Top Dry Battery Cell, described on page 41, is used with these cabinets. The cells are screwed into receptacles, thereby automatically making all connections without the use of wires or binding posts.

Loose connections and resulting loss of power are impossible. It is as easy to replace any cell as it is to replace a burned-out incandescent lamp. Simply screw the cell into the receptacle.

When the circuit or line wires have been once connected to the battery-set terminals, they never have to be disconnected or re-connected, although any predetermined change of circuit connections may, of course, be made to take care of any specific conditions.

Screw Top Cell Individual cells may be tested with an ammeter or battery gauge without removing the cell from its holder, or a test of the complete bank of cells may be made at the cabinet terminals.

Automatic Bridge: In all series type battery sets later described, each cell receptacle is equipped with a spring bridge contact which automatically short-circuits the receptacle as soon as the cell is removed. This permits the removal of any cell or cells from the battery set without opening the circuit and temporarily putting the system out of commission; this also provides a quick test for a weak cell without the use of an ammeter or other testing apparatus.





General Types

Patterson Battery Sets for Inter-phone service are made in four different styles or types, differing only in the method of mounting, although each style is arranged with different circuit combinations to suit the requirements of the particular system installed. These four general types are listed as follows:

STRIP TYPE

Model "B": This is the simplest type, and is designed for use where the battery holder can be mounted on the ceiling, under-side of a shelf, or other similar location where the support is solid and permits of easy access all around to screw in or remove the battery cells. They are furnished with galvanized hinge-brackets for mounting on a side-wall, but for this purpose the side-wall type Model "BR" is recommended and is preferable.

SIDE-WALL TYPE

Model "BR": This type is designed for mounting on the wall or other vertical surface, and consists of a metal-faced backboard on which is hinged a strip type holder equipped with knife switch blades which, when the holders are dropped into place, make contact with jaws rigidly mounted on the backboard. Stationary binding posts or terminals are also mounted on the backboard.

Complete Connection Diagram furnished with each Inter-phone 43 Inter-phones and

Inter-phones and Accessories



General Types (Continued)

NON-FLUSH STEEL BOX TYPE

Model "BB": This type consists of a strip type holder mounted in a pressed steel box, finished in black japan; the top and back are hinged to permit of ready inspection. The binding posts are permanently located on the backboard of the box, and the holders mounted on the top and equipped with knife switch blacks which, when the box is closed, make contact with jaws mounted on the backboard in exactly the same manner as the side-wall type.

WALL CABINET SERIES TYPE

Model "BSC": This type is essentially a steel box equipped with side-wall type holders and having regular cabinet casings, either for flush or surface mounting, as desired, and with the door equipped with a cylinder lock instead of a padlock.

MULTIPLE-SERVICE TYPES

Any of these models above described can be furnished in Multiple-Service type, that is, sets having two rows of holders connected in multiple. Where the service is severe these multiple sets provide a much more economical installation, and one that will give three times the length of service that a single series set will give. Information and prices on Multiple-Service sets furnished on request.

For System No. 14

This system, by referring to the battery requirements and wiring diagram on page 6, requires a "split circuit" battery set having two cells only for the talking circuit, and one, two, or three additional cells for the ringing circuit, depending on the length of line.

SERIES STRIP TYPE—MODEL "B" Split Circuit

Model No.	No. Cells Talking	No. Cells Ringing	List Price Each No Batteries
B-2-1	2	1	\$4.50
B-2-2	2	2	6.00
B-2-3	2	3	7.50



Model "BB"-Open



Model "BB"-Closed



Model "BSC"-Flush Type



Model "BMC"-Multiple-Service Type

SERIES SIDE-WALL TYPE
MODEL "BR"
Split Circuit

SERIES NON-FLUSH STEEL BOX TYPE MODEL "BB"

Split Circuit				Split Circuit			
Model No.	No. Cells Talking	No. Cells Ringing	List Price Each No Batteries	Model No.	No. Cells Talking	No. Cells Ringing	List Price Each No Batteries
BR-2-1	2	1	\$7.70	BB-2-1	2	1	\$ 9.60
BR-2-2	2	2	9.40	BB 2-2	2	2	11.70
BR-2-3	2	3	11.00	BB-2-3	2	3	13.80

Complete Connection Diagram furnished with each Inter-phone Inter-phones and Accessories 44



List Price Each

For System No. 14 (Continued)

SERIES WALL-CABINET TYPE-MODEL "BC"

Split Circuit

Model No.	No. Cells	No. Cells	Flush	Surface	Flush	Surface
	Talking	Ringing	Steel "B"	Steel "B"	Oak	Oak
BSC-2-1	$2 \\ 2 \\ 2$	1	\$17.76	\$14.80	\$30.96	\$25.80
BSC-2-2		2	20.76	17.30	35.16	29.30
BSC-2-3		3	23.88	19.90	39.60	33.00

For Systems No. 16, 15, 11 and 12

By referring to the battery requirements and wiring diagrams of these systems it will be noted that only a straight-series battery is required to consist of from 3 to 6 cells, depending on the system and the length of line. The following sets, when ordered with the proper capacity, can be used in any of these systems.

SERIES STRIP-TYPE-MODEL "B"

Model No. B-3 B-4	No. Cells 3 4	No Batteries \$4.50 6.00
B-5 B-6	5 6	$\begin{array}{c} 7.50 \\ 9.00 \end{array}$
	SERIES SIDE-WALL TYPE-MODEL "BR"	
BR-3	3	\$6.10
BR - 4 BR-5	4 5	7.70 9.40
BR-6	6	11.00

SERIES SURFACE STEEL BOX TYPE-MODEL "BB"

BB-3	3	\$7.80
BB-4	4	9.60
BB-5	5	11.70
BB-6	6	13.80

SERIES WALL-CABINET TYPE-MODEL "BSC"

		List Price, No Batteries			
Model No.	No. Cells	Flush Steel "B"	Surface Steel "B"	Flush Oak	Surface Oak
$\begin{array}{c} \mathrm{BSC-3}\\ \mathrm{BSC-4}\\ \mathrm{BSC-5}\\ \mathrm{BSC-6}\end{array}$	3 4 5 6	\$14.88 17.76 20.76 23.88	\$12.40 14.80 17.30 19.90	27.00 30.96 35.16 39.60	\$22.50 25.80 29.30 33.00

For Systems No. 1 and 4

These systems require a "split circuit" battery consisting of from 3 to 5 cells for talking and 4 to 7 cells for ringing, having the carbon side of both the talking and ringing sets connected or strapped together, as indicated under Battery Requirements, page 20, and Wiring Diagrams, page 21.

The following special "split circuit" battery sets, having the carbon terminals of both batteries connected together as part of the permanent wiring of the set, are recommended for the above systems.

	SERIES STRIP-TYP				
	Split C	ircuit			
	No. Cells	No. Cells	List Price Each		
Model No.	Talking	Ringing	No Batteries		
BW-5-4	5	4	\$13.50		
BW-5-5	õ	5	15.00		
BW-5-7	õ	7	18.00		
Complete Connection Diagram furnished with each Inter-phone					
-	- 4	5	Inter-phones and Accessories		

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For Systems No. 1 and 4 (Continued)

SERIES SIDE-WALL TYPE-MODEL "BRW"

Split Circuit

Model No.	No. Cells	No. Cells	List Price Each
	Talking	Ringing	No Batteries
BRW-5-4	5	4	\$17.40
BRW-5-5	5	5	18.88
BRW-5-7	5	7	22.32

SERIES BOX-TYPE-MODEL "BBW"

	Split Cire	cuit	
BBW-5-4	5	4	\$21.80
BBW-5-5 BBW-5-7	5 5	5 7	$23.65 \\ 27.95$

SERIES WALL-CABINET TYPE—MODEL "BSCW" Split Circuit

- List Price Each, No Batteries -No. Cells No. Cells Surface Flush Surface Flush Model No. Steel "B" Steel "B" Talking Ringing Oak Oak 5 5 5 BSCW-5-4 4 \$36.72 \$30.60 \$54.36\$45.30 BSCW-5-5 40.26 33.55 39.65 $\begin{array}{c} 58.41 \\ 69.03 \end{array}$ $\frac{5}{7}$ 48.67BSCW-5-7 47.5857.53

For Systems No. 7, 8, 9 and 10

These systems usually require in addition to a "split circuit" battery consisting of five cells for "talking" and 3 to 6 for "ringing," having the carbon side of both the "talking" and "ringing" sets connected or strapped together, an extra "split" of two cells having its carbon side strapped to the zinc side of the "ringing" battery. See wiring diagram, page 32.

Battery sets arranged with this special strapping for the above systems are listed below.

SERIES STRIP-TYPE-MODEL "BW" Split Circuit

Model_No. BW-5-3-2 BW-5-4-2 BW-5-5-2 BW-5-6-2	No. [°] Cells Talking 5 5 5 5 5	No. Cells Ringing 3 4 5 6	No. Cells Door Opener 5 6 7 8	Total Cells in Row 10 11 12 13	List Price Each No Batteries \$15.00 16.50 18.00 19.50		
SERIES SIDE-WALL TYPE-MODEL "BRW"							
			Circuit				
BRW-5-3-2 BRW-5-4-2 BRW-5-5-2 BRW-5-6-2	5 5 5 5	3 4 5 6	5 6 7 8	$10 \\ 11 \\ 12 \\ 13$	$20.60 \\ 22.32 \\ 24.05 \\ 25.76$		
	SE	ERIES BOX-TYP	PEMODEL "BB	w "			
Split Circuit							
BBW-5-3-2 BBW-5-4-2 BBW-5-5-2 BBW-5-6-2	5 5 5 5	3 4 5 6	5 6 7 8	$10 \\ 11 \\ 12 \\ 13$	$25.80 \\ 27.95 \\ 30.10 \\ 32.25$		
	SERIES W	ALL-CABINET	TYPE—MODEL "	BSCW "			

Split Circuit

			-1		L	ist Price Each,	No Batterie	s
	No. Cells	No. Cells	No. Cells	Total Cells	Flush	Surface	Flush	Surface
Model No.	Talking	Ringing	Door Opener	in Row	Steel "B"	Steel "B"	Oak	Oak
BSCW-5-3-2	5	3	5	10	\$43.92	\$36.60	\$63.72	\$53.10
BSCW-5-4-2	5	4	6	11	47.58	39.65	69.03	57.53
BSCW-5-5-2	5	5	7	12	51.24	42.70	74.34	61.96
BSCW-5-6-2	5	6	8	13	54.90	45.75	79.65	66.39

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INTER-PHONE OUTFITS

Western Electric Inter-phones (System No. 15 Wall and Hand Set types only), are put up in standard packages containing two instruments and a sufficient quantity of installing material, in the following combinations. Information as to the number of batteries required will be found on page 9.

WALL TYPE

- 14-A Includes a No. 14 outfit as above described, packed in one box, and in a smaller separate box, a Type "A" Interior wiring material outfit, containing 75 feet of three conductor, insulated and twisted copper wire, two battery connectors for connecting the dry cells together, and a sufficient quantity of insulated nails for putting up the wire. This outfit is for use where the wire is to be run entirely under cover, or in a perfectly dry location.....
- 14-B Includes a No. 14 outfit as above described, packed in one box and in a separate box a Type "B" Outside wiring material outfit, containing 150 feet of three conductor, insulated and twisted outside copper wire, two galvanized iron brackets for attaching the wire to two buildings, complete with screws, hooks, and porcelain knobs, two porcelain tubes for further insulating the wire where it enters the buildings, two battery connectors, and 25 insulated nails for supporting or fastening the wire inside the buildings.....

Western Electric Diter phone Na 14 PRIVATE LINE OUTFIT Na 14 PRIVATE LINE OUTFIT Na 14 PRIVATE LINE OUTFIT Price Internet Market Statute Na 14 BOUTTIT Price P

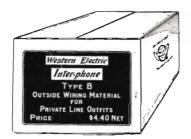
No. 14 Outfit (Two Inter-phones only)



Interior Wiring Material Must be ordered with No. 14 to complete Outfit No. 14-A

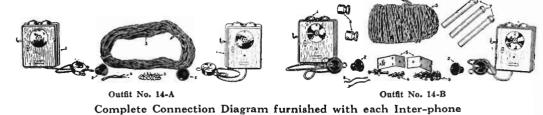
13.00

16.00



Outside Wiring Material Must be ordered with No. 14 to complete Outfit No. 14-B

Complete instructions for installing are packed in each box.



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Inter-phones and Accessories

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INTER-PHONE OUTFITS (Continued)

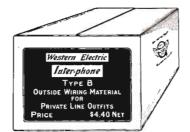
HAND SET TYPE



No. 15 Outfit (Two Inter-phones only)



Interior Wiring Material Must be ordered with No. 15 to complete Outfit No. 15-A



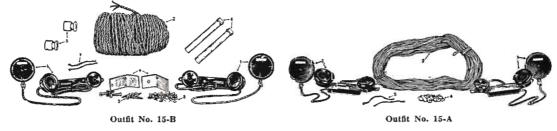
Outside Wiring Material Must be ordered with No. 15 to complete Outfit No. 15-B Hand Set Type Inter-phones (System No. 15) are put up in standard packages containing one No. 6043-A and one No. 6043-B Inter-phone, and a sufficient quantity of installing material in the following combinations:

Outfit No. Description			Price
15	Includes one No. 6043-A non-flush Hand Set		
	Inter-phone to be used at the battery station,		
	and one No. 6043-B ditto for use at the other		
	station, complete with cords, as described on		
	ready for instant delivery	\$1	3.60

- 15-B Includes a No. 15 outfit as above described, packed in one box, and in a separate box a Type "B" Outside wiring material outfit containing 150 feet of three conductor insulated and twisted outside copper wire, two galvanized iron brackets for attaching the wire to two buildings, complete with screws, bolts, and porcelain knobs, two porcelain tubes for further insulating the wire where it enters the buildings, two battery connectors, and 25 insulated nails for supporting or fastening the wire inside the buildings.

Complete instructions of installing are packed in each box.

18.00



Swi 1 boi TCI Library: www.telephonecollectors.info

Are you still using one of these antiquated



bell or buzzer systems for calling?



Western Electric

No. 16 Inter-phone Outfit



By means of this outfit your present bell, buzzer or annunciator system can be transformed into a practical, working telephone line.

Use the same wires, the same bell or buzzer, and 4 new batteries your office boy can install it— Price, \$8.75



I Don't ask the stenographer to come to your desk for every little thing.

There are no doubt many times when a word of instruction could be spoken at a saving of time and expense.

Give your instructions to the office boy by telephone.

Save him unnecessary steps and thereby increase his efficiency.

¶ Ask your assistant to come to your desk and bring the papers on the matter you wish to discuss.

With the old buzzer system he would have to make two trips.

¶ What are your conditions?

Stop to think a minute. Couldn't the efficiency of **your** organization or office force be increased by the installation of one or more of these outfits?

Wouldn't it be convenient to buzz and speak your instructions and receive the answer immediately without waiting for someone to come to your desk?

Western Electric Inter-phone Outfits.

No. 16-A To be used in conjunction with circuits consisting of one bell or buzzer and one push button.

Contains: 2 hand sets (one having a ringing button), each equipped with a transmitter, receiver and cords; 2 connecting blocks and screws, 25 feet insulated twisted pair copper wire for extending the line wires to the connecting blocks, and 20 insulated nails for fastening wire to wall or desk.

Price..... \$8.75

W E.CO T-347

No. 16-B To be used in addition to a No. 16-A outfit in conjunction with existing bell, buzzer or annunciator systems having more than one push button or where it is desired to install hand sets at more than one point communicating with the buzzer or annunciator station.



