
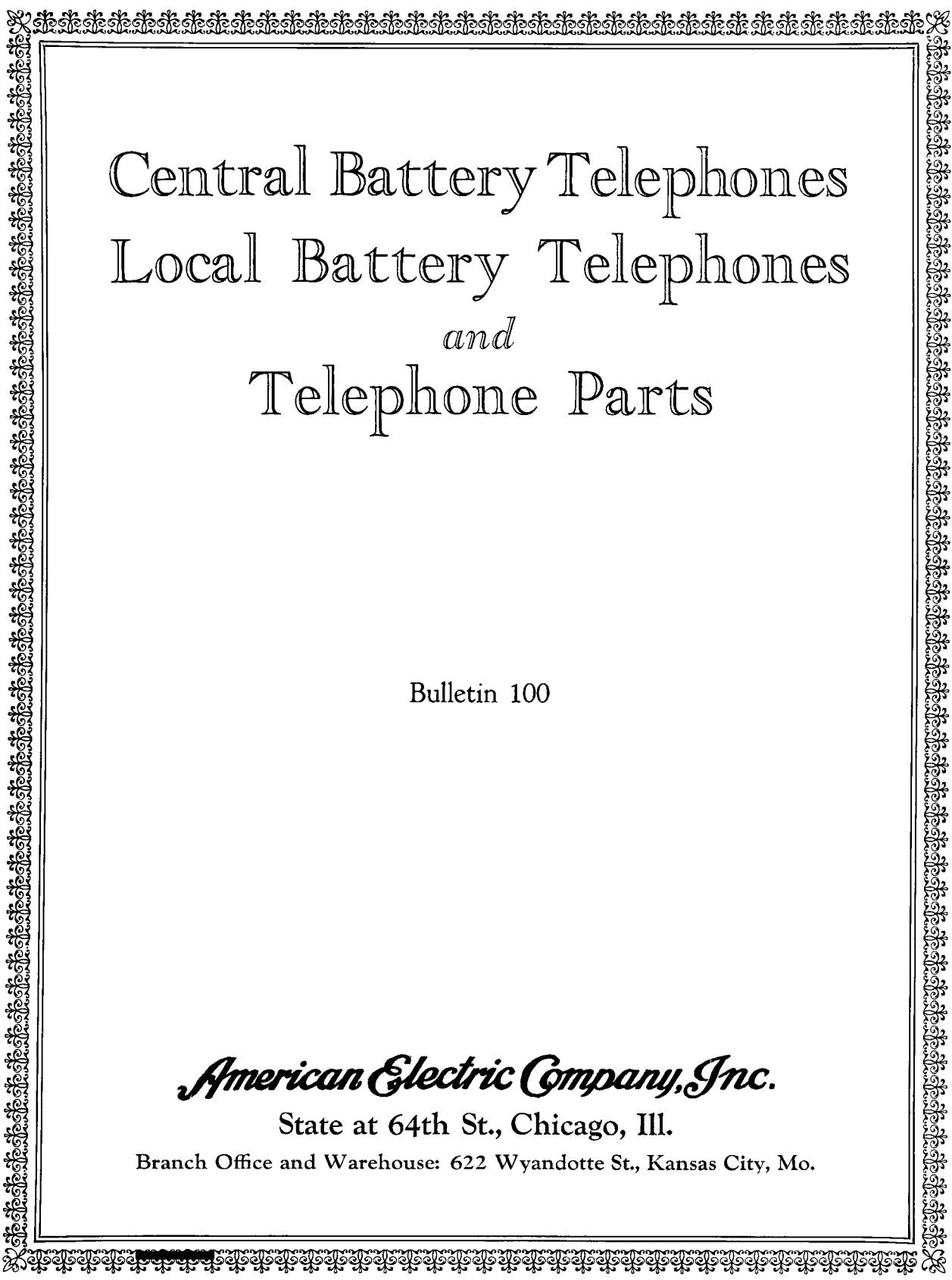
A decorative border consisting of a thick red outer line and a thinner black inner line, framing the entire page content.A rectangular box with a red background and a black border, containing the title text.

Telephones *and* Telephone Parts

Bulletin 100

American Electric Company, Inc.
CHICAGO, U. S. A.



Central Battery Telephones Local Battery Telephones *and* Telephone Parts

Bulletin 100

American Electric Company, Inc.

State at 64th St., Chicago, Ill.

Branch Office and Warehouse: 622 Wyandotte St., Kansas City, Mo.

A Complete Service To Telephone Companies

American Electric Company, Inc., manufactures or distributes everything necessary for public telephone systems. This equipment includes:

Central Office Apparatus

Monotype series of standardized switchboards—toll boards—power plants—power panels—chief operator's desks—wire chief's desks—distributing frames—arrester equipment and interior cabling.

Subscriber Station Equipment

Central battery telephones, local battery telephones and auxiliary equipment.

Outside Equipment

Poles—cable—cross arms—line wire—drop wires—strand—construction materials—tools—supplies—everything for either overhead or underground construction.

*We will be pleased to furnish
detailed information and prices
on any of the above equipment.*

Table of Contents

Central Battery Telephones

The Monophone Series - - - - -	Pages 5 to 8
The Type 21 Series - - - - -	Pages 9 and 10

Local Battery Telephones

The Monophone Series - - - - -	Pages 11 to 13
The Type 200 Series - - - - -	Pages 13 and 14

Ringer Boxes

Central Battery - - - - -	Page 16
Local Battery - - - - -	Page 17

Telephone Parts

Component Parts of the above telephones -	Pages 19 to 29
---	----------------

A Detailed Index Will Be Found on Page 31.

To The Purchaser

When Ordering:

Please give:

- (1) Quantity desired.
- (2) Code or number of parts required.
- (3) Name of parts required.
- (4) Shipping address.
- (5) Route of shipment.

Special Apparatus:

We have endeavored to list in this catalog all complete telephones and parts ordinarily required. If the part desired is not shown, please give quantity and send sample if possible. Otherwise, give full description of part required, and code number of apparatus upon which it is to be used.

New Apparatus:

We are constantly improving our apparatus, and the improved designs will be shipped on all orders for parts, provided the old and new designs are interchangeable.

Shipments:

Please specify whether you desire shipment made by freight, express or parcel post. We insure all mail shipments which we deem of sufficient value, and charge this expense to the customer. If shipment is desired by freight, please give routing, otherwise we cannot be held responsible for extra drayage expense at destination.

Claims:

We cannot be responsible for breakage or loss after receiving an "In Good Order" receipt from the transportation company, and all claims of this kind should be made, without delay, to them. We will be glad to assist in securing a satisfactory adjustment of such claims. Claims for shortage should be made promptly and should be accompanied by packer's ticket, which is placed in each case.

Returning Goods:

Secure our consent before returning goods for credit, exchange, or repairs.

Prices:

From time to time, we issue price lists which will gladly be sent upon request. Unpriced orders will be filled at prices prevailing at date of shipment. Small orders priced from obsolete price lists will be shipped at latest prices without re-quotation, unless revised quotations are requested before shipment. Large orders so priced will be quoted on, and your approval secured before shipment is made.

**All agreements are made contingent upon strikes, fires, accidents, or other causes
beyond our control.**

Central Battery Telephones

AMERICAN ELECTRIC COMPANY, Inc., now manufactures two different series of central battery telephones, each embodying, in its own field, the utmost in beauty, utility and durability. Type 21 telephones are of the conventional wall and desk styles, while the Monophones are a modern development of the more artistic cradle types which have become so popular during recent years.

A careful examination of the design and construction of these telephones will reveal their thorough dependability for all purposes. Their high transmission efficiency—their positive wearing qualities—and the excellent appearance they present, form a combination of advantages that make them the ideal instruments from the standpoint of both the user and the telephone company.

The Monophone Series

Monophone Desk Sets

The three Monophone desk sets for central battery service, shown hereafter, are similar in design and construction but use different circuits. The No. 5-A Monophone uses a booster coil circuit and requires a special bell box. The No. 15-A Monophone has an induction coil receiver and may be used with any existing bell-box. The No. 7 Monophone has an induction coil and condenser mounted in the base and may also be used with any installed ringer box. See Page 16 for ringer boxes.



Monophone Desk Set
No. 5-A and No. 15-A

The No. 5-A Monophone

(Requires No. 7006 Ringer Box)

	Code No.
Desk Set Complete - - - - -	501
Desk Stand Only - - - - -	502
Ringer Box Used with Above Desk Stand - - - - -	7006

Monophone Desk Set No. 5-A uses the booster-type anti side-tone circuit shown herewith. The base is of black japanned brass and contains the bakelite terminal strip, to which the Monophone switch and handpiece are connected. Contains the following parts:

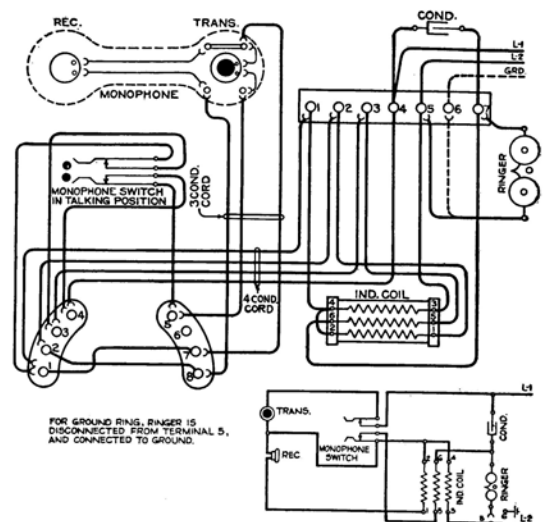
	Code No.
Monophone Hand Unit - - - - -	D-40953-A
Monophone Switch - - - - -	D-730247-A
Connecting Cord - - - - -	D-541866-A

When ordering, specify ringer frequency desired.

Shipping weight of desk stand—5 lbs.

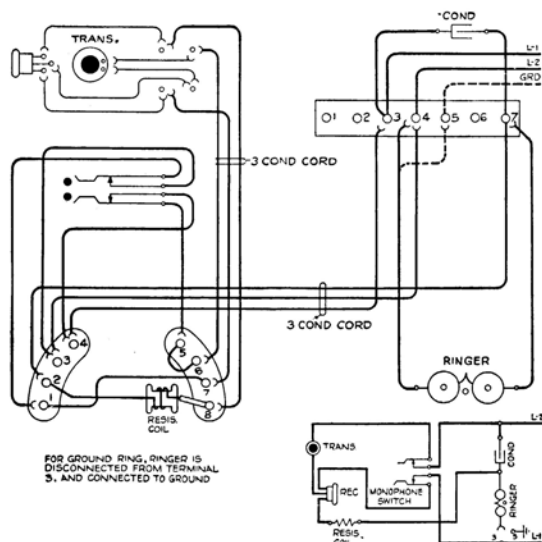
Shipping weight of ringer box—6 lbs.

Shipping weight of desk set complete—11 lbs.



Circuit of No. 5-A Monophone

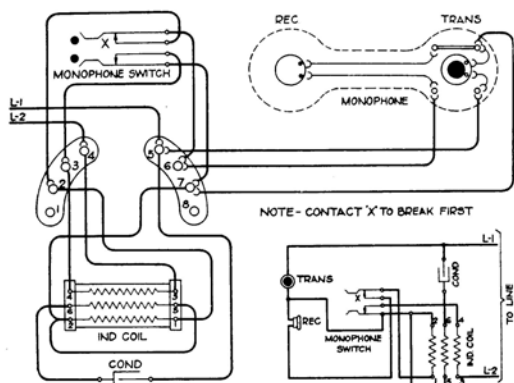
Central Battery Telephones—The Monophone Series (Continued)



Circuit of No. 15-A Monophone



The No. 7 or Two-Conductor Monophone



Circuit of No. 7 Monophone

The No. 15-A Monophone

(Uses Any Conventional Ringer Box)

	Code No.
Desk Set Complete - - - - -	1501
Desk Stand Only - - - - -	1502
Ringer Box Used with Above Desk Stand - - - - -	7004

The No. 15-A Monophone has the same appearance as the No. 5-A Monophone shown on the preceding page but uses a unique type of receiver. This receiver contains an induction coil which performs the same functions as the special induction coil in the ringer box used with the 5-A Monophone. Since no external induction coil is necessary, a series type ringer box may be used. The anti side-tone circuit shown provides transmission of an excellent quality. The following parts are used:

	Code No.
Monophone Hand Unit - - - - -	D-40954-A
Monophone Switch - - - - -	D-730247-A
Connecting Cord - - - - -	D-541844-A
Resistance Coil - - - - -	D-281634-A

When ordering, specify ringer frequency desired.

Shipping weight of desk stand—5 lbs.

Shipping weight of ringer box—6 lbs.

Shipping weight of desk set complete—11 lbs.

The No. 7 Monophone

(Uses Any Conventional Ringer Box)

	Code No.
Desk Stand Only - - - - -	702
Ringer Box Used with Above Desk Stand - - - - -	7004
Desk Set Complete - - - - -	701

The practical advantages offered by the No. 7 or Two-Conductor Monophone has led many telephone companies to adopt it as their standard telephone. In appearance, it is similar to the Nos. 5-A and 15-A Monophones, differing only in that the base is raised one inch for mounting an induction coil and condenser. The incorporation of these parts in the desk stand permits this instrument to be used with any ringer box—or, for extension service, to be attached directly to the line. Excellent transmission efficiency is obtained with the anti side-tone circuit shown.

The No. 7 Monophone contains the following parts:

	Code No.
Monophone Hand Unit - - - - -	D-40953-A
Monophone Switch - - - - -	D-730247-A
Induction Coil - - - - -	D-281528-A
Condenser - - - - -	AC-18530
Connecting Cord - - - - -	D-541871-A

When ordering, specify ringer frequency desired.

Shipping weight of desk stand—5 lbs.

Shipping weight of ringer box—6 lbs.

Shipping weight of desk set complete—11 lbs.

Central Battery Telephones—The Monophone Series (Continued)

Monophone Wall Sets Nos. 6 and 16

The Monophone wall sets have a feature of convenience found in no other wall set because the transmitter and receiver are combined in one unit and it is not necessary for the user to stand during a conversation. He may be seated anywhere within a cord's length of the wall box. They may be mounted on the side of a desk or anywhere within reach—thus keeping the top of the desk clear. Installed, complete with hand unit, they are 12 inches high and 9 inches wide, and project 4 inches from the mounting surface.

The wall set consists of a Monophone cradle mounted on a black-japanned steel ringer box, of the enclosed gong type. It is furnished two types—the No. 6 Monophone using the booster circuit with the induction coil mounted in the ringer box—while No. 16 Monophone is of the induction coil receiver type.



Monophone Wall Set
No. 6 and No. 16

The No. 6 Monophone

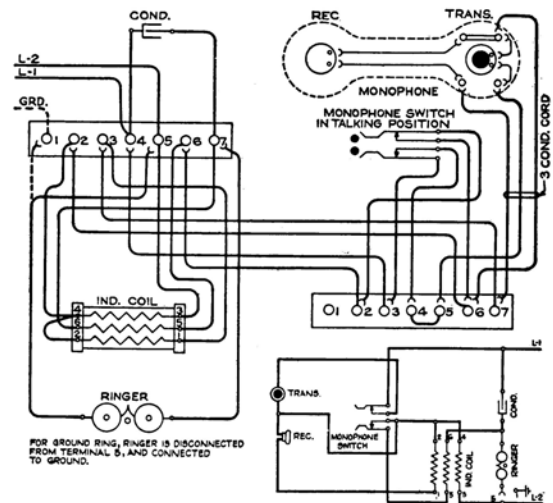
Monophone Wall Set Complete - - - - - Code No. 601

Monophone wall set No. 6 is wired in accordance with the anti side-tone circuit shown herewith. It contains the following parts:

	Code No.
Monophone Hand Unit - - - - -	D-40953-A
Monophone Switch - - - - -	D-730247-A
Induction Coil and Terminal Strip - - - - -	D-281527-A
Condenser - - - - -	D-6897
Condenser Bracket - - - - -	D-73684
Cover Terminal Strip - - - - -	D-15379-A

Shipping weight—10 lbs.

When ordering, specify ringer frequency desired.



Circuit of No. 6 Monophone

The No. 16 Monophone

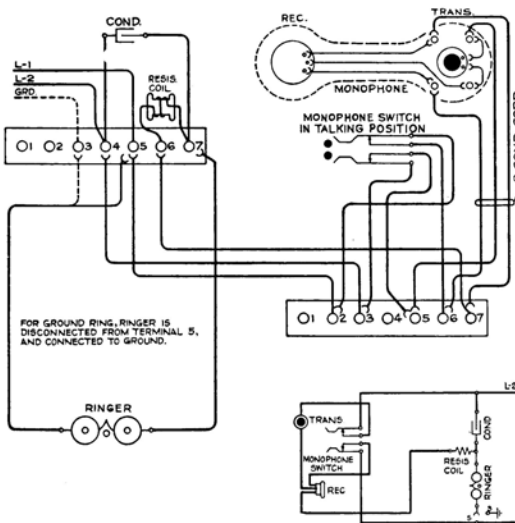
Monophone Wall Set Complete - - - - - Code No. 1601

The No. 16 Monophone has an induction coil receiver and high transmission efficiency is obtained with the use of the anti side-tone circuit shown. The No. 16 Monophone contains the following parts:

	Code No.
Monophone Hand Unit - - - - -	D-40954-A
Monophone Switch - - - - -	D-730247-A
Resistance Coil - - - - -	D-281634-A
Condenser - - - - -	D-6897
Condenser Bracket - - - - -	D-73684
Base Terminal Strip - - - - -	D-15377-A
Cover Terminal Strip - - - - -	D-15379-A

Shipping Weight—10 lbs.

When ordering, specify ringer frequency desired.

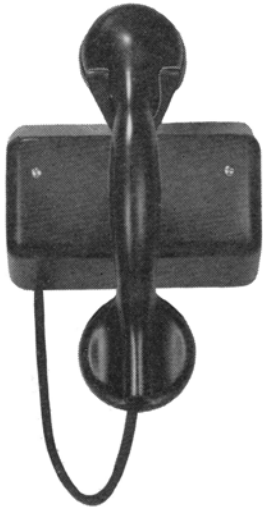


Circuit of No. 16 Monophone

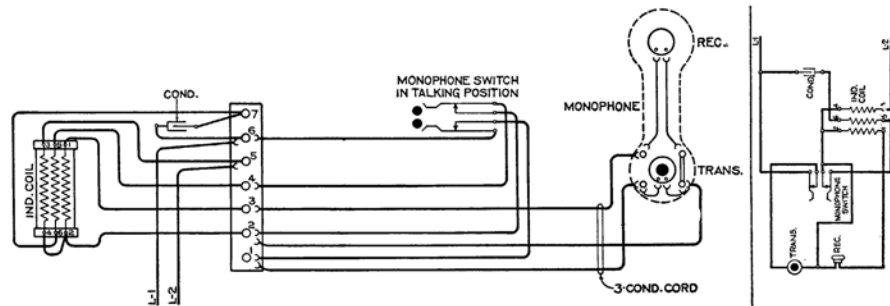
Central Battery Telephones—The Monophone Series (*Continued*)

Monophone Extension Sets Nos. 4 and 14

These sets are used for extension service on any central battery telephone. Since they are intended for such use only, they do not have a ringer. The elimination of this item permits making the extension set extremely compact. These sets consist of a bakelite wall box on the top of which is mounted a fork for holding the hand unit. When the unit is in place, it rests against the push-rod of the Monophone switch, holding the springs open. The wall box requires only a space $3\frac{3}{4}$ inches by $5\frac{1}{4}$ inches in size, so that it may be easily mounted in any location at which the ringer of the main telephone is audible.



Monophone Extension Set
No. 4 and No. 14



The No. 4 Monophone

Monophone Extension Set Complete - - - - - Code No. - 401

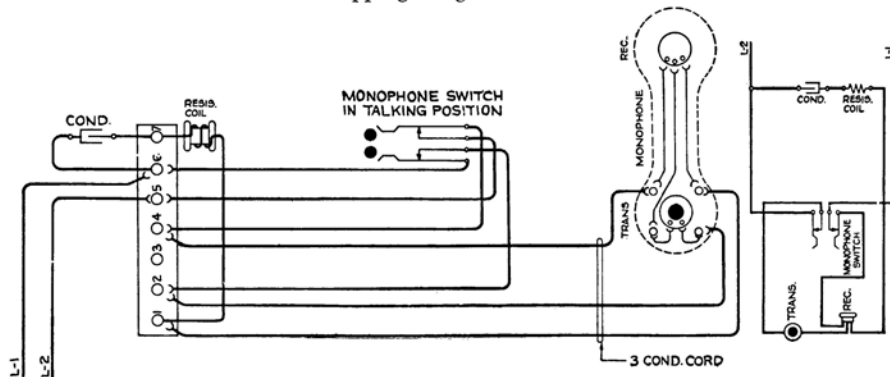
Monophone extension set No. 4 has an induction coil in the wall box and uses the anti-side tone circuit shown above. Contains the following parts:

Monophone Hand Unit	-	-	Code No. D-40953-A	Induction Coil	-	-	-	Code No. D-281528-A
Monophone Switch	-	-	D-730271-A	Condenser	-	-	-	D-6897
Terminal Strip	-	-	D-15377-A					

Shipping Weight—4 lbs.



Illustrating the Convenience
of the Monophone
Extension Set



The No. 14 Monophone

Monophone Extension Set Complete - - - - - Code No. - 1401

Monophone extension set No. 14 uses an induction coil type receiver in the anti side-tone circuit shown above. It contains the following parts:

Monophone Hand Unit	-	-	Code No. D-40954-A	Resistance Coil	-	-	-	Code No. D-281634-A
Monophone Switch	-	-	D-730271-A	Condenser	-	-	-	D-6897
Terminal Strip	-	-	D-15377-A					

Shipping Weight—4 lbs.

Central Battery Telephones (Continued)

The Type 21 Series

The Type 21 Series is composed of wall and desk type telephones of conventional design. They are the result of years of experience of telephone manufacturing and incorporate every improvement and refinement that has proven consistent with sound telephone principles.

Because of their excellent design—their operating economy — their long wearing qualities — and their thorough dependability, the Type 21 series of instruments have been adopted by hundreds of telephone companies the world over, as their standard telephones.

The Type 21 Desk Set

The Type 21 desk set is truly representative of all that is most modern in telephone design. Easy accessibility to the terminal block in the base is obtained by loosening a single “non-losable” screw. The removal of another screw permits the withdrawal of the hookswitch for inspection. The hookswitch is mounted on a plate which carries the transmitter and its mounting. The transmitter assembly is attached to a solid aluminum-bronze mounting neck by a simple hinge concealed in the shell, making a joint similar in appearance to a ball-and-socket joint. The holding screw and nut are so arranged as to prevent the hinge from working loose and to hold the transmitter in any desired position. Although the desk stand is light in weight, this weight is so distributed that the desk stand is not easily knocked over. The overall height is 11½ inches and the diameter of the base is 5½ inches. Furnished with a six-foot, “Sarco”-insulated and silk covered cord. Ringer Boxes are shown on Page 16.



Type 21 Desk Stand

	Code No.
Desk Set Complete with Ringer Box - - - - -	2104
Desk Stand Only - - - - -	2108
Ringer Box Used with Above Desk Stand - - - - -	7001

The desk set uses the booster type circuit shown herewith and contains the following parts:

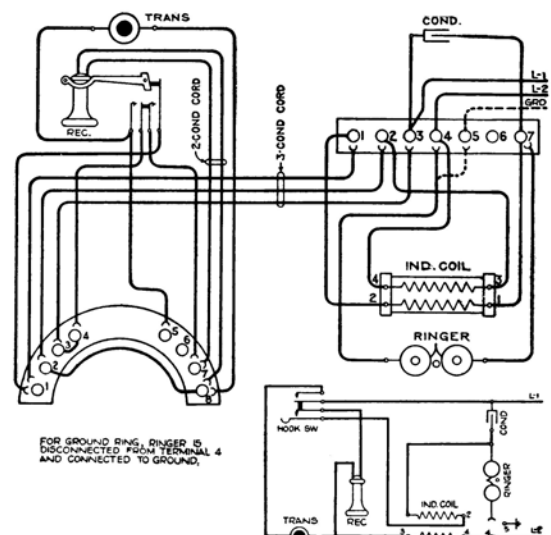
	Code No.
Receiver - - - - -	D-5151-A
Hooksprings and Mounting Plate - - - - -	D-78279-A
Desk Set Cord - - - - -	D-541844-A
Transmitter - - - - -	D-38201-A
Base Terminal Strip - - - - -	D-15381-A

When ordering, specify ringer frequency desired.

Shipping weight of desk stand—5 lbs.

Shipping weight of ringer box—6 lbs.

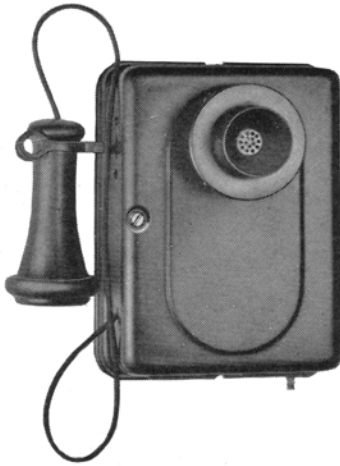
Shipping weight of desk set complete—11 lbs.



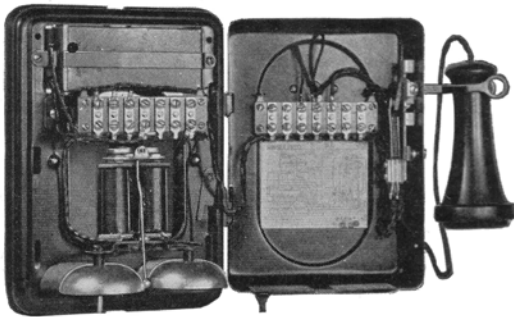
Circuit of Type 21 Desk Set

Central Battery Telephones—The Type 21 Series (Continued)

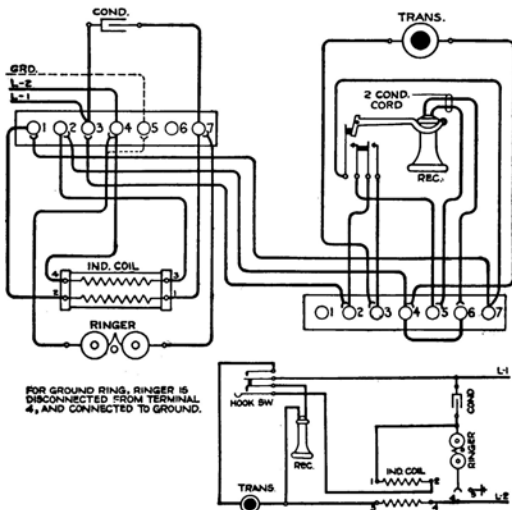
The Type 21 Wall Set



The Type 21 Wall Set



Interior View of Type 21 Wall Set



Circuit of Type 21 Wall Set

The Type 21 Wall Set is built with same rugged construction as the desk set. The base and cover are made of steel and are protected with a durable black japan finish. The cover encloses the gongs, completely protecting the ringer from injury.

The transmitter is mounted on the cover by a hinge similar to that used on the desk telephone. This mounting protects the transmitter wires from injury, and holds the transmitter in any desired position but permits it to be readily raised or lowered.

The cover is opened by merely turning a screw on the front of the case. A small locking plate on one of the hinges provides the means of removing the cover. By merely loosening this plate and pushing it aside, the cover may be slid up and removed from the base.

Many of the parts used in the wall set are interchangeable with the desk set. This offers an unusual degree of operating economy, since only a limited stock of parts need be carried from which to make replacements in either the wall or desk styles.

The condenser, ringer and the induction coil are mounted on the base. The ringer is mounted directly below the induction coil. The condenser is clamped into a recess in the base by means of a steel bracket. The terminal strip is mounted on the induction coil and all connections are made to it so that any necessary changes may be made without disturbing the interior wiring of the set.

The wall set is 10 inches wide, and $9\frac{5}{8}$ inches high, and $7\frac{1}{2}$ inches deep, including the transmitter and receiver. It can be mounted on a surface $7\frac{1}{4}$ inches by $9\frac{5}{8}$ inches in size.

Code No.
Wall Telephone Complete - - - - - 2113

The Type 21 Wall Set uses the booster circuit shown. It contains the following parts:

	Code No.
Receiver - - - - -	D-5151-A
Hooksprings and Bracket - - - - -	D-73683-A
Transmitter - - - - -	D-38201-A
Induction Coil and Terminal Strip - - - - -	D-281249-A
Cover Terminal Strip - - - - -	D-6897
Condenser Bracket - - - - -	D-730100
Cover Terminal Strip - - - - -	D-15379-A

When ordering, specify ringer frequency desired.

Shipping Weight—8 lbs.

Local Battery Telephones

The local battery telephones manufactured by American Electric Company, Inc., are, like the central battery telephones, divided into two series—the Type 200 Series and the Monophone Series. The Type 200 Series comprises the conventional designs—while the Monophone Series consists of the more modern “cradle-type” instruments that have been especially designed for magneto service.

While each of the various types shown hereafter incorporate every desirable improvement in operation and construction that is known to the industry—yet the fundamental principle of low maintenance cost has been the guiding thought back of all designing. As a result, the operating manager is assured of, not only long, satisfactory service, but profitable operation, as well.

The Monophone Series

Local Battery Monophone Desk Sets

There are three types of Monophone desk stands for local battery service—the No. 8 Monophone for local service where there are not more than four parties to a line—and Nos. 9 and 19 Monophone for either local or rural service where the lines are more heavily loaded. Many of the component parts of these instruments are identical with those used in the common battery types. The extension of the Monophone series to the local battery field now enables those telephone companies who operate both central battery and local battery lines to offer the Monophone to all subscribers without limitations.



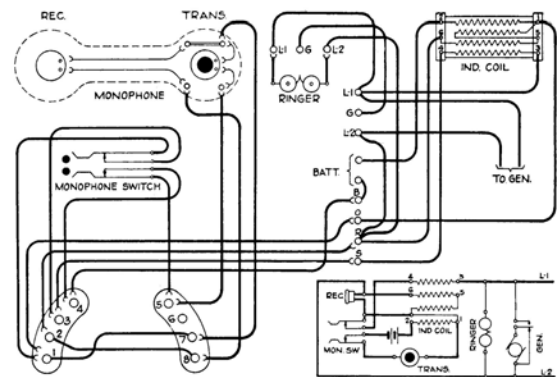
Monophone Desk Set No. 9

Local Battery Monophone Desk Set No. 9

Complete with Ringer Box—3 bar generator—1000 ohm ringer	Code No. 901
Complete with Ringer Box—5 bar generator—1600 ohm ringer	Code No. 902
Complete with Ringer Box—5 bar generator—2500 ohm ringer	Code No. 903

Monophone Desk Stand No. 9 must be used with special American Electric ringer boxes as listed above. Gives excellent transmission using anti side-tone circuit shown herewith. Monophone Desk Set No. 9 uses the following parts:

Monophone Hand Unit	Code No. D-40953-A
Monophone Switch	Code No. D-730247-A
Connecting Cord—4 Conductor	Code No. D-541866-A
Shipping weight of desk stand—5 lbs.	
Shipping weight of ringer box—8 lbs.	
Shipping weight of desk set complete—13 lbs.	



Circuit of Monophone Desk Set No. 9

Local Battery Monophone Desk Stand No. 19

(Uses Conventional Ringer Box)

This desk stand is identical in appearance with Monophone Desk Stand No. 7 shown on Page 6. It has an induction coil mounted in the base and may be used with any conventional local battery ringer box.

Monophone Desk Stand	No. 1902
----------------------	----------

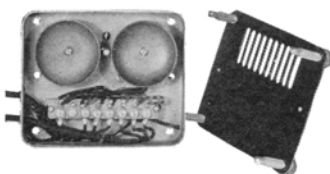


Monophone Desk Set No. 19

Local Battery Telephones—The Monophone Series (*Continued*)



Monophone Desk Set No. 8



View of the Base of the
No. 8 Monophone

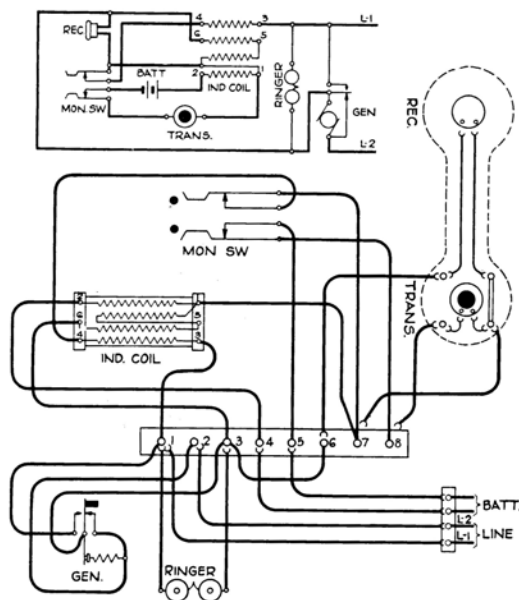
Monophone Desk Set No. 8

Monophone Desk Set No. 8 is a complete local battery telephone including generator and ringer—all combined in a compact table set. The generator, ringer, and induction coil are arranged so as to require very little space—the overall height of the set being only 10 $\frac{1}{4}$ inches.

This type of Monophone is especially desirable wherever it is difficult or undesirable to use a ringer box. The four-conductor cord and terminal block—furnished with each instrument—permits placing the batteries in the basement or other remote spot. Only the terminal block need be permanently mounted.

The two bar generator used in this instrument is especially powerful for its size and will adequately serve where there are not more than four parties to a line. For long and heavily loaded lines, however, the No. 9 Monophone, shown on the preceding page, is recommended.

The base of the No. 8 Monophone is ingeniously arranged to permit the ringer to be clearly audible. A special false base through which the ringer protrudes protects the generator and induction coil. A second base plate covers the ringer and is perforated directly below the gongs. The rubber feet which keep the telephone from marking the desk also raise it sufficiently to permit the ringing to be clearly heard.



Code No.

Desk Set Complete—including Terminal Block - - - 801

Unexcelled transmission is obtained with the use of the anti side-tone circuit shown. Contains the following parts:

Code No.

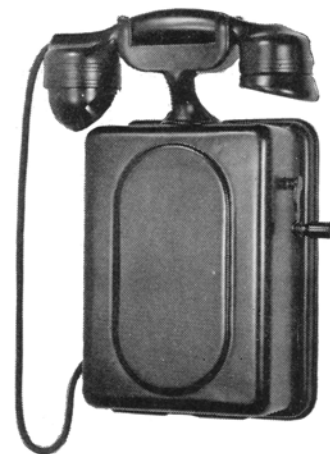
Monophone Hand Unit	- - - - -	D-40953-A
Monophone Switch	- - - - -	D-730240-A
Induction Coil	- - - - -	D-281569-A
Generator	- - - - -	AC-90124
Ringer	- - - - -	MC-56223-D
Cord—4 Conductor	- - - - -	D-541866-A
Terminal Strip	- - - - -	MC-1533

Shipping weight complete—12 lbs.

Local Battery Telephones—The Monophone Series (Continued)

Monophone Wall Set No. 10

Consists of a cradle-rest, which holds the Monophone hand unit, mounted on a steel wall box containing ringer, two-bar generator and induction coil. The user of this telephone need not stand while talking but may be seated a cord's length from the wall box, a feature that is unobtainable with conventional type local battery wall telephone. As installed, complete with Monophone hand unit, it is 12 inches high and 9 inches wide and projects 4 inches from the mounting surface. Monophone Wall Set No. 10 will be found convenient for mounting on the side of a desk, thus keeping the top of the desk clear.



Monophone Wall Set No. 10

Code No.

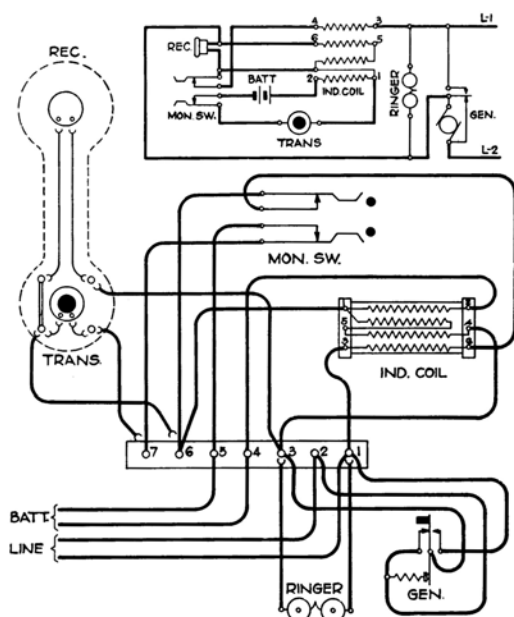
Monophone Wall Set Complete - - - - - 1002

Although the two-bar generator is especially powerful for its size, this instrument is not recommended where there are more than four parties to a line. Excellent transmission and reception qualities are obtained with the use of the anti-side-tone circuit shown. The following parts are used:

Code No.

Monophone Hand Unit	- - - - -	D-40953-A
Monophone Switch	- - - - -	D-730247-A
Generator	- - - - -	AC-90124
Induction Coil	- - - - -	D-281569-A
Terminal Strip	- - - - -	D-15377-A
Ringer, 1000 ohm	- - - - -	MC-56230-D

Shipping weight complete—8 lbs.



Circuit of No. 10 Monophone

Monophone Extension Set No. 17

Similar to No.'s 4 and 14 Monophones, shown on page 6. Since this set is for extension service only it does not contain a ringer or generator. It is 8¾ inches high, 5½ inches long and projects 4⅜ inches from the wall. Requires only a space of 3¾ inches by 5½ inches in size for mounting.

Code No.

Monophone Extension Set - - - - - 1702

Contains the following parts:

Code No.

Monophone Hand Unit	- - - - -	D-40953-A
Induction Coil	- - - - -	D-281569-A
Terminal Strip	- - - - -	D-15377-A

Shipping weight complete—4 lbs.



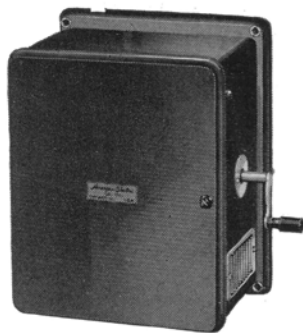
Monophone Extension Set No. 17

Local Battery Telephones (Continued)

Type 200 Series



Type 200 Desk Set



Ringer Box for
Type 200 Desk Set

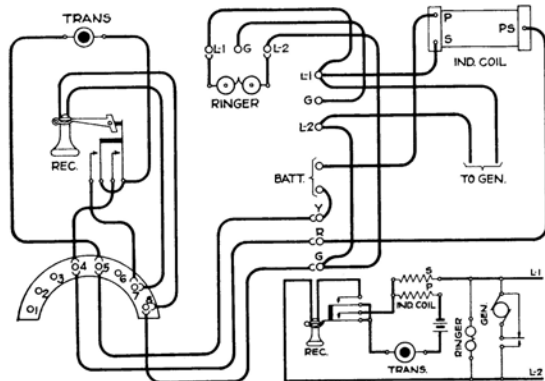
The mechanical efficiency and durability of the Type 200 magneto telephone is amply proven in their widespread use the world over. If they are compared point by point as to durability, quality of workmanship, convenience of operation, and quality of transmission, they will be found to represent the highest standards of magneto telephone design and construction ever attained. Their low maintenance cost guarantees the telephone company profitable, as well as satisfactory, operation.

The Type 200 Desk Set

The Type 200 Desk Stand is thoroughly modern in every respect. It is an excellent appearing instrument of rugged construction, light weight and carefully balanced. The removal of a single screw permits the withdrawal of the transmitter and switch-hook for inspection. The terminal block in the base is easily accessible upon loosening a single "non-losable" screw. The transmitter is attached to the centerpost by a hinge that is concealed by a shell similar to a ball and socket joint. The hinge is arranged so that the transmitter may be adjusted and will stay in any desired position. The height of the desk stand is 11 1/2 inches. The diameter of the base is 5 5/8 inches.

	Code No.
Desk Set complete with Ringer Box, 3 bar generator—1000 ohm ringer	201
Desk Set complete with Ringer Box, 5 bar generator—1600 ohm ringer	202
Desk Set complete with Ringer Box, 5 bar generator—2500 ohm ringer	203
Desk Stand only	205

Type 200 Desk Set uses the circuit shown herewith and contains the following parts:



Circuit of Type 200 Desk Set

	Code No.
Transmitter	D-38218-A
Receiver	D-5151-A
Hook Springs and Mounting Plate	D-78279-A
Desk Set Cord	MC-54227
Base Terminal Strip	D-15381-A
Induction Coil	MC-2888
Generator—3 bar—No. AC-9092 or 5 bar	AC-90116
Ringer—1000 ohm	MC-56221-D
Ringer—1600 ohm	MC-56221-E
Ringer—2500 ohm	MC-56221-G
Ringer Box Terminal Strip	MP-4696

Ringer Boxes are finished in either golden oak or ebony black finish. State which is desired when ordering.

Weight of desk stand—5 lbs.
Weight of ringer box—12 lbs.
Weight of desk set complete—17 lbs.

Local Battery Telephones—Type 200 Series (Continued)

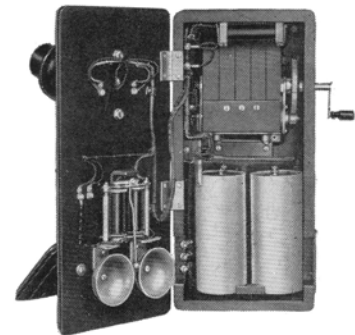
Type 200 Wall Set

Even a casual inspection of the Type 200 Wall Set will reveal the many improvements in design that have been made over former magneto wall telephones. The concealment of the ringer, the shorter transmitter arm, and the attractive small cabinet are all features exclusive with this instrument. The placing of the ringer on the inside of the telephone not only improves the appearance of the instrument but also protects the ringer from injury. A small opening screened by nickered mesh at the bottom of each of the side panels allows the ringer to be heard equally as well as if it were mounted on the outside. The smaller writing shelf and shorter transmitter arm enhance the appearance of the wall set and make it much more compact than former designs. The overall dimensions are 15 $\frac{1}{4}$ inches high, 7 $\frac{1}{4}$ inches wide and 5 $\frac{1}{4}$ inches deep.

The individual parts are arranged to preserve the compactness of the instrument but all connections are easily accessible for making any desired changes. The cabinet is made of quarter sawed oak and finished in either golden oak or ebony black.



Type 200 Wall Set



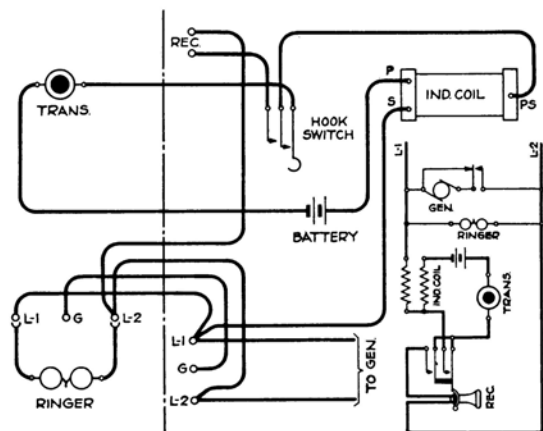
Interior View of Type 200 Wall Set

	Code No.
Wall Set complete with 3 bar generator—1000 ohm ringer	- - - - - 210
Wall Set complete with 5 bar generator—1600 ohm ringer	- - - - - 211
Wall Set complete with 5 bar generator—2500 ohm ringer	- - - - - 212

Type 200 Wall Set can be furnished with a condenser wired in series with the receiver or with push button for selective signalling, if so desired. Give Code No. above and state "with condenser" or "with push button." Also state whether golden oak or ebony black finish is desired.

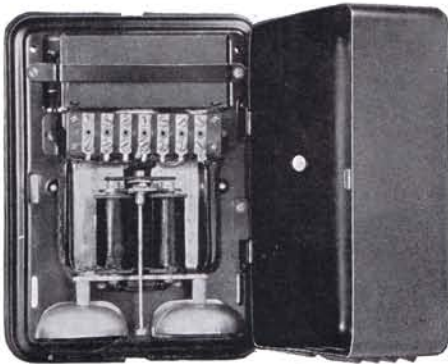
The Wall Set uses the circuit shown herewith. The following parts are used:

	Code No.
Induction Coil	MC-2888
Generator—3 bar—No. AC-9092—5 bar	AC-90116
Ringer—1000 ohm	MC-56221-D
Ringer—1600 ohm	MC-56221-E
Ringer—2500 ohm	MC-56221-G
Transmitter Arm Complete	MC-3827
Receiver	D-5151-A
Hookswitch	MC-6251



Circuit of Type 200 Wall Set

Central Battery Ringer Boxes



Interior View of Ringer Box

These ringer boxes are of standard central battery design and may be used with almost any make of telephone. All connections between the various parts are made at the terminal strip, to which the exterior connections are made. This arrangement is extremely flexible, as any desired wiring changes may be made without disturbing the interior wiring. The equipment mounted in a ringer box consists of: a ringer, a terminal strip, a condenser and an induction coil.

Ringer boxes are furnished with steel cases which are heavily black-japanned. They are 9 $\frac{5}{8}$ inches high, 7 $\frac{1}{4}$ inches wide and 4 inches deep. The base of each ringer box, with all its parts, is interchangeable with that of the corresponding Type 21 Wall Telephone.



Ringer Box

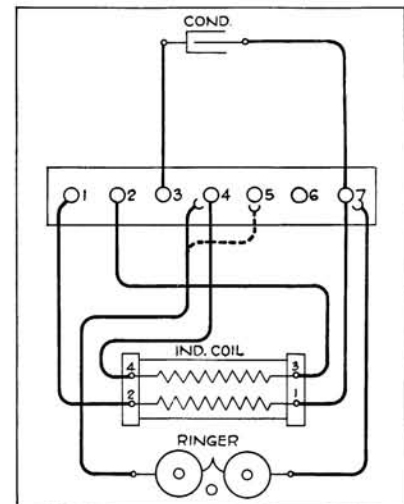
Ringer Box for Type 21 Desk Stand

Ringer Box Complete - - - - - Code No. 7001

This ringer box uses the circuit shown herewith and contains the following parts:

	Code No.
Induction Coil - - - - -	D-280389
Condenser - - - - -	D-6897
Condenser Bracket - - - - -	D-73684
Terminal Strip - - - - -	D-15377-A

When ordering specify whether straight line or harmonic ringer is desired. If harmonic, please give frequency wanted.



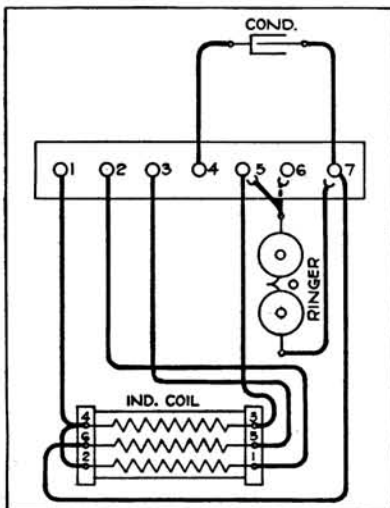
Ringer Box for No. 5-A Monophone Desk Stand

Ringer Box Complete - - - - - Code No. 7006

Uses the circuit shown on the left and contains the following parts.

	Code No.	Code No.
Induction Coil - - - - -	D-281528-A	Condenser Bracket - - - - -
Condenser - - - - -	D-6987	Terminal Strip - - - - -
		D-15377-A

When ordering state ringer frequency desired.



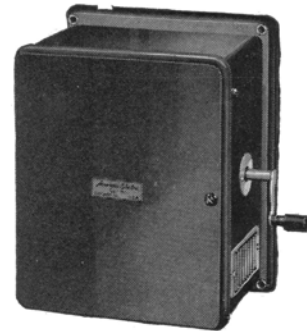
Ringer Box for No. 15-A Monophone Desk Stand

Ringer Box Complete - - - - - Code No. D-7004

Same as above but without induction coil. State ringer frequency wanted.

Local Battery Ringer Boxes

The local battery wood ringer boxes are of the latest design with concealed gongs. Small openings on each side of the box, screened with wire mesh, allow the ringer to be clearly audible. The dimensions of the box are $9\frac{1}{8}$ inches high, $7\frac{3}{4}$ inches wide, and $5\frac{1}{2}$ inches deep. Finished in either golden oak or ebony black, as desired. May be furnished with condenser wired in series with the receiver or with push button for selective signalling, when required. In ordering, give code number and state "with condenser" or "with push button."



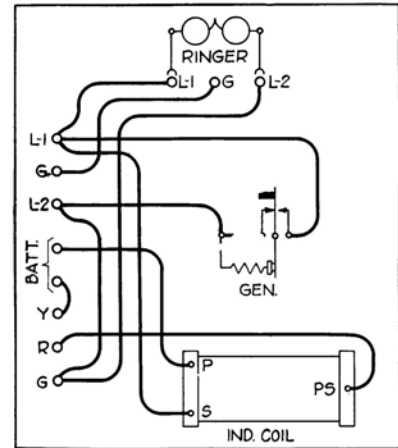
Ringer Box for Type 200 Desk Stand

	Code No.
Ringer Box complete with 3 bar generator—1000 ohm ringer - - -	220
Ringer Box complete with 5 bar generator—1600 ohm ringer - - -	221
Ringer Box complete with 5 bar generator—2500 ohm ringer - - -	222

These ringer boxes use the circuit shown herewith and contain the following parts:

	Code No.
Induction Coil - - - - -	MC-2888
Terminal Strip - - - - -	MP-4696
Generator, 3 bar, No. AC-9092; or 5 bar - - - - -	AC-90116
Ringer, 1000 ohm - - - - -	MC-56221-D
Ringer, 1600 ohm - - - - -	MC-56221-E
Ringer, 2500 ohm - - - - -	MC-56221-G

State whether golden oak or ebony black finish is desired.



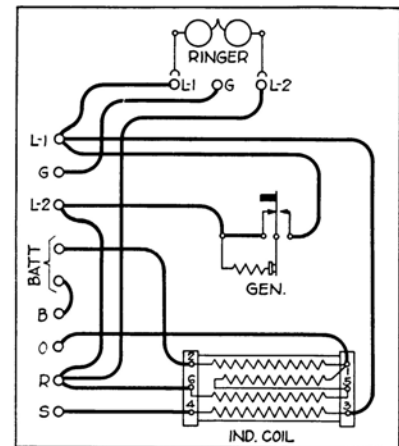
Ringer Box for No. 9 Monophone

	Code No.
Ringer Box complete with 3 bar generator—1000 ohm ringer - - -	911
Ringer Box complete with 5 bar generator—1600 ohm ringer - - -	912
Ringer Box complete with 5 bar generator—2500 ohm ringer - - -	913

These ringer boxes use the circuit shown herewith and contain the following parts:

	Code No.
Induction Coil - - - - -	D-281569-A
Terminal Strip - - - - -	MP-5112
Generator, 3 bar, No. AC-9092; or 5 bar - - - - -	AC-90116
Ringer, 1000 ohm - - - - -	MC-56221-D
Ringer, 1600 ohm - - - - -	MC-56221-E
Ringer, 2500 ohm - - - - -	MC-56221-G

State whether golden oak or ebony black finish is desired.

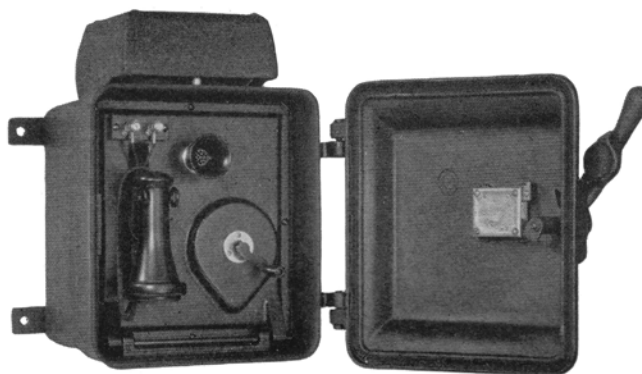
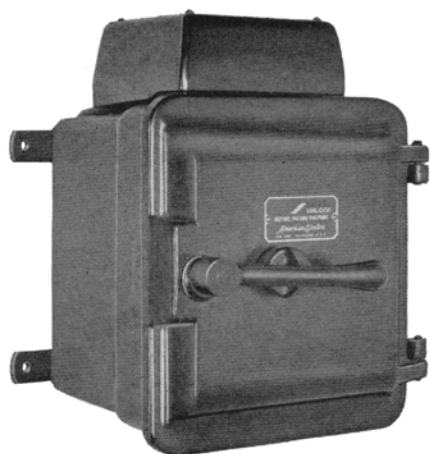


Ringer Boxes for Extension Service

	Code No.
C. B. Steel Ringer Box with ringer and Condenser - - - - -	5100
C. B. Steel Ringer Box with ringer only - - - - -	5101

When ordering state frequency of ringer.

The Mine Telephone



The telephone shown here is intended for use in mines, quarries, boiler rooms—in fact, wherever unusual strength and moisture-proof construction are desirable. The parts are enclosed in a heavy cast iron case provided with two doors, each of which is made moisture-tight by means of a sponge rubber gasket. The case is heavily coated with black rust-resisting paint.

The outer door has a cam type locking handle, and a strong lock, for which two keys are furnished. When this door is opened, the telephone is ready for use. The working parts are mounted on the inner door which is opened only for installation and inspection. The terminal block is mounted in the case which has holes in the top and bottom for $\frac{1}{2}$ -inch conduit. A pipe plug is furnished for plugging the unused hole.

The ringer is mounted under a cast-iron hood on the top of the case, and is fitted with three-inch, loud ringing gongs. Ringer connections are made through insulated brass rods which pass through the case, making a water-tight connection. Coils are of enameled wire and all connecting wires are insulated with "Sarco" moisture-proofing compound.

Furnished in three types:

	Code No.
Mine Telephone—Central Battery using series circuit and straight line ringer - - - - -	2901
Mine Telephone—Central Battery using booster circuit -	2902
Mine Telephone—Local Battery with 5 bar generator and 1600 ohm ringer - - - - -	2903

May be furnished with dial or arranged for dial, if so desired.

Special Telephones

Standard Telephones with Special Features

Our standard central and local battery telephone will meet all ordinary requirements, but peculiar climatic or other operating conditions may make it advisable to use specially constructed telephones. American Electric Company, Inc., is in a position to apply the following features in its telephones:

1. Rubber covered interior wiring.
2. Rubber insulated cords.
3. Metal parts brass instead of steel.

4. White nickel finish for all parts not otherwise protected.
5. Metal insect-excluding screen over ringer box openings.
6. Waterproof transmitters.
7. Transmitter cut-off buttons.

When ordering special telephones, add the word "Special" to the code number of the corresponding central or local battery instrument, and state as fully as possible what changes are desired.

The Monophone Hand Unit

The Monophone hand unit consists of a handle with cups at the ends, for the transmitter and receiver. The handle is shaped to fit the hand, and to fall into the correct position for actuating the switch, even if it is carelessly replaced in the cradle. A brass tube in the handle serves to reinforce it, and to carry the connecting wires between the transmitter and the receiver.

The transmitter and receiver caps are molded of bakelite. The transmitter cap deflects the speech to the diaphragm without distortion, and the receiver cap is shaped to exclude outside noises.

Hand units are furnished with either the polarized or the induction coil receiver.

	Code No.
Monophone Hand Unit, with Polarized Receiver - - - - -	D-40953-A
Monophone Hand Unit, with Induction Coil Receiver - - - - -	D-40954-A

The Transmitter

The transmitter used in the Monophones is of the solid-back type, with a heavy forged brass framework. Although only $2\frac{3}{8}$ inches in diameter, it has unusually fine transmission quality.

The transmitter regularly furnished in the Monophone hand-unit is designed to operate satisfactorily under all ordinary conditions of either central battery or local battery service.

	Code No.
Monophone Transmitter - - - - -	D-38192-A

The Polarized Receiver

The polarized type receiver is contained in a brass cup $1\frac{7}{8}$ inches in diameter. The permanent magnet, of tungsten magnet steel, is bent to a circular shape, with a gap of only $\frac{5}{16}$ of an inch between poles. The magnet coils are wound on the short legs of two L-shaped pieces and these pieces are mounted with the long legs touching the poles of the permanent magnet. The pull of the magnets is only $\frac{5}{32}$ of an inch from the center of the diaphragm.

The diaphragm is perfectly flat ferrotype metal, rustproofed, and mounted within $1/1000$ of an inch of the coil cores, so as to respond to every fluctuation of current.

Used in all Monophones except No. 15-A and No. 16.

	Code No.
Monophone Polarized Receiver - - - - -	D-5154-A

The Induction Coil Receiver

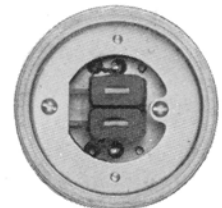
No separate induction coil is needed with this receiver, as its windings are arranged to operate as an induction coil. The coils are wound on a laminated silicon-iron core mounted under the center of the diaphragm. The laminated construction of the core not only prevents eddy currents and losses, but also causes the receiver to respond rapidly to every change of current.

Used in the No. 15-A and the No. 16 Monophone.

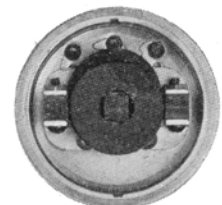
	Code No.
Monophone Induction Coil Type Receiver - - - - -	D-5155-A



The Monophone Hand Unit

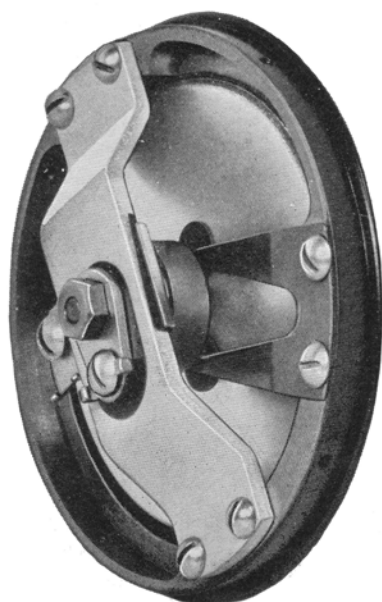


The Polarized Type Receiver



The Induction Coil Type Receiver

Transmitters



Rear View of Transmitter

Every detail of the design of American Electric transmitters has received careful attention. They are light in weight, of simple construction and give transmission of unexcelled quality.

The front-piece plate, which is also the frame of the transmitter, is of brass. The main diaphragm is of aluminum. Its lightness and flexibility enable it to follow all the fluctuations of speech, and transmit it without distortion. It is perfectly flat, except for an abrupt bend at its very edge. Because of this bending, only a sharp edge of the diaphragm is in contact with its clamping-ring, so that practically its entire area is free to vibrate. The clamping-ring is of enameled paper, which will not adhere to the diaphragm.

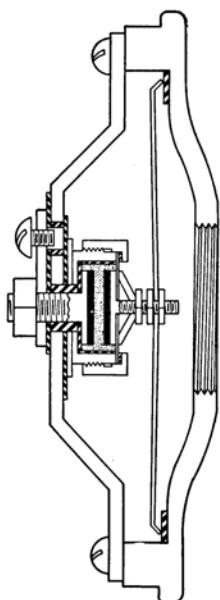
At its exact center, the diaphragm is drilled for the brass screw which couples it to the front carbon electrode. Two nuts, placed on this screw and tightly clamped to both sides of the diaphragm, prevent lost motion.

The front carbon electrode is mounted on an auxiliary metal diaphragm which is free to vibrate in unison with main diaphragm. This auxiliary diaphragm closes the front of a brass cup, in which the rear carbon electrode is mounted. The cup is fastened to a heavy metal bridge, which is tightly screwed to the front plate of the transmitter, and cannot vibrate. The sounds which move the front electrode will, therefore, be transmitted without distortion.

The brass cup is lined with insulating material, and a carefully-measured amount of granulated carbon is poured into it. These carbon granules, as well as the carbon electrodes, are clean and highly polished.

Electrical connections to the two carbon electrodes are made at binding posts, as all current-carrying parts are insulated from the framework of the transmitter. Notice that the diaphragm does not have to move the carbon-cup—it merely moves one of its electrodes. This is one reason for its clear transmission. Another reason is the fact that the sizes of the carbon electrodes and the microphone cell are adapted to the use for which the transmitter is designed.

The front of the transmitter is heavily black-japanned. The framework has four equally spaced tapped holes for mounting screws. Transmitters are furnished without mouthpieces, which are, however, listed below separately.



Cross Section of Transmitter

For Type 21 Central Battery Telephones

	Code No.
Transmitter for both wall and desk telephones - - - - -	D-38201-A

For Type 200 Local Battery Telephones

	Code No.
Transmitter for desk telephone - - - - -	D-38218-A
Transmitter and arm, complete, for wall telephone - - - - -	MC-3827

Transmitter Mouthpiece

	Code No.
Bakelite Mouthpiece to fit the above transmitters - - - - -	D-38165

Receivers

The receivers used on our telephones are of standard size and shape, and are suitable for use on almost any telephone. The cases and ear-caps are of bakelite, which is strong and has a durable polished black finish. The coils are of enameled copper wire, wound on silicon-iron cores, and firmly fastened in a brass cup, on the front of which the diaphragm is placed. The space between the coils and the diaphragm can, therefore, be fixed, and is not affected by the tightness of the ear-cap. This space is less than one-hundredth of an inch, so that the diaphragm is affected by every fluctuation of the current in the coils. The diaphragm is of ferrotype metal, rustproofed on both sides and thin enough to instantly follow the current changes.

Cords are thirty-three inches long, covered with brown silk braid and fitted with spade tips. Unless otherwise specified receivers are furnished with cords trimmed in this manner.



Receiver

	Code No.
Receiver—Complete with Cord Trimmed with Spades - - - - -	D-5151-A
Receiver—Complete with Cord Trimmed with Tips - - - - -	MC-5143
Receiver Shell Only - - - - -	D-52018
Receiver Cap Only - - - - -	D-67103
Magnet Only - - - - -	D-56195
Diaphragm - - - - -	D-3833



Receiver Disassembled

Ringers for Local Battery Telephones

The simple, substantial construction of these ringers make them highly efficient and free from all ordinary forms of ringer troubles. The coils are wound on spools having Norway iron cores which are thoroughly annealed. The heads of the coils are fibre, and the winding is carefully done with the best grade magnet wire. Each coil, before and after assembling, is tested and its resistance carefully measured.

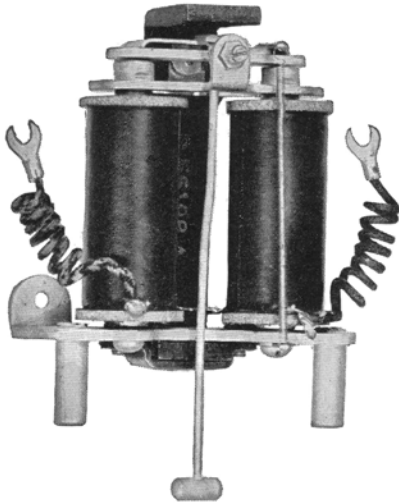
The various types listed are substantially the same, differing only in the mounting required for the particular telephone with which it is used. Furnished with gongs unless otherwise specified.



Local Battery Ringer

	Code No.
Ringer for No. 8 Monophone—1000 ohm - - - - -	MC-56223-D
Ringer for No. 9 Monophone—1000 ohm - - - - -	MC-56221-D
Ringer for No. 9 Monophone—1600 ohm - - - - -	MC-56221-E
Ringer for No. 9 Monophone—2500 ohm - - - - -	MC-56221-G
Ringer for No. 10 Monophone—1000 ohm - - - - -	MC-56230-D
Ringer for Type 200 Telephones—1000 ohm - - - - -	MC-56221-D
Ringer for Type 200 Telephones—1600 ohm - - - - -	MC-56221-E
Ringer for Type 200 Telephones—2500 ohm - - - - -	MC-56221-G

Ringers for Central Battery Telephones



Straight-Line Ringer

A notable feature of these ringers is the absence of the two most common forms of ringer trouble—loss of adjustment and loss of magnetism. They are correctly and permanently adjusted at the factory. The permanent magnets, of tungsten magnet steel, are strongly magnetized, and are fastened to the framework by means of a clamping yoke. This arrangement permits mounting without joints, breaks or holes, which would otherwise reduce magnetic strength.

The coils of the ringers are of copper wire, heavily enameled, and wound carefully to prevent short-circuits. The coils are wound on cores of annealed Norway iron, from which they are insulated by means of a layer of empire cloth.

Straight-line ringers have a moving unit mounted between pivots and are practically frictionless. They are fitted with a biasing spring permitting the use of pulsating ringing current, and may therefore be used for biased-bell ringing on party lines.

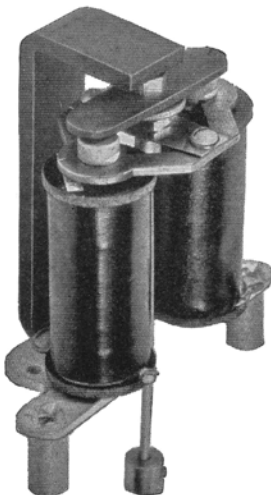
The harmonic ringers have the clapper arm fastened to a steel reed, the assembly being adjusted to operate at one, and only one, of the standard frequencies. The assembly is very simple, and requires no adjustments.

Furnished complete with gongs unless otherwise specified.

Ringers

For Central Battery Wall Telephones and Ringer Boxes

The type of ringer used in all of our central battery wall telephones and ringer boxes is mounted on two angle brackets.



Harmonic Ringer

Frequency	Total Resis.	Code No.
Straight-line - - - - -	1400 ohms - - - - -	D-56164-A
16 Cycle - - - - -	2760 ohms - - - - -	D-56172-A
20 Cycle - - - - -	2110 ohms - - - - -	D-56176-A
25 Cycle - - - - -	2080 ohms - - - - -	D-56175-A
30 Cycle - - - - -	1224 ohms - - - - -	D-56177-A
33 Cycle - - - - -	528 ohms - - - - -	D-56165-A
42 Cycle - - - - -	528 ohms - - - - -	D-56178-A
50 Cycle - - - - -	476 ohms - - - - -	D-56173-A
54 Cycle - - - - -	476 ohms - - - - -	D-56179-A
66 Cycle - - - - -	476 ohms - - - - -	D-56180-A

Gongs for Above

	Code No.
2 ½" diam., Eccentric Hole, White Nickel Finish - - - - -	D-56166-A
2 ½" diam., Eccentric Hole, Black Rubber Japan Finish - - - - -	D-56166-B

Generators

The designs of American Electric generators are based on principles long proven in actual operating practice. They are compact, powerful, easy to operate and sturdily built for hard usage.

The magnet steel is of the highest quality obtainable—the quality of the steel governing the efficiency of the generator.

Soft iron castings are used as field pieces. These castings are machined with extreme care so that when they are placed between the generator heads there is just a few thousandths of an inch air space between the armature and the field pieces.

The generator heads are made of heavy brass sheet formed to accurately fit the field pieces. They have long bushings with large surfaces serving as bearings for the crank and armature shafts. These large wearing surfaces eliminate the possibility of the armature scraping the pole pieces even after years of service.

The gear and pinion are made of dissimilar metals—the pinion wheel being steel and the gear wheel brass. This type of construction not only doubles the life of the parts but also insures smooth running. A protector cap with cushion springs inside, is placed over the pinion, the springs absorbing the shock of sudden starting and thus reducing the strain on the gears.

The shunt springs are made of silver and when in normal position, the winding of the armature is shunted out of the circuit. Turning the crank forces the shaft out against the long shunt spring—thus breaking the short circuit.

American Electric generators are made in three sizes—five bar—three bar—and two bar. The three and five bar are of standard familiar design. The two bar is a special development for use in steel ringer boxes.

Three and Five Bar Generators

Used in Type 200 Wall Sets and in Ringer Box for Type 200 Desk Set.

Three Bar Generator - - - - -
Five Bar Generator - - - - -

Code No.

Two Bar Generators

Used in Monophone Desk Set No. 8 and Monophone Wall Set No. 10.

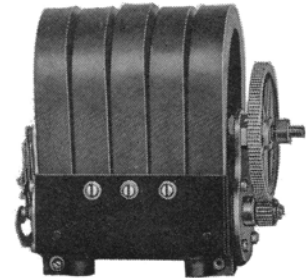
Two Bar Generator - - - - -

Code No.

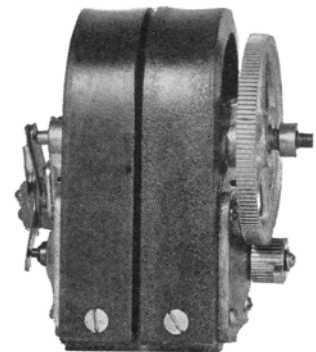
Generator Crank

Generator Crank for above Generators - - - - - 1929

Code No.

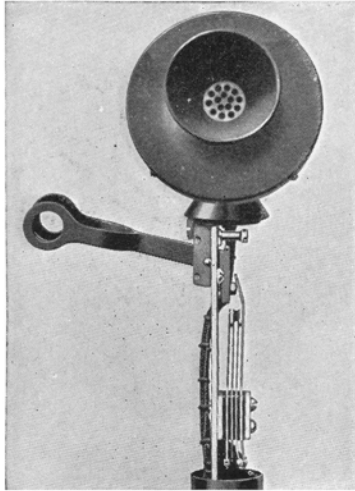


Five Bar Generator



Two Bar Generator

Hookswitches



Hookswitch for Desk Telephones

Hookswitch springs should be as stiff as can be operated by the weight of the receiver. Springs which are very flexible hold contacts together rather loosely and thereby cause poor contacts and the resulting sparking, pitting, and noise in the receiver.

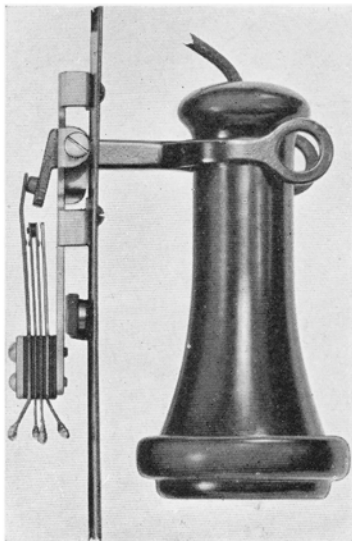
The springs of our hookswitches are made of stiff phosphor bronze and hold the contacts tightly together. The contacts are carefully located in correct alignment, and are made of an alloy of silver and gold.

Phenol fiber insulates the springs from the frame and the clamping screws. The clamping screws can be removed, if necessary, to permit changing the springs. Connecting terminals are staggered to simplify connecting.

Hookswitch for Desk Telephones

The hookswitch used on both the Type 21 and Type 200 desk stands is mounted on a steel plate which is screwed to the transmitter mounting at the top and to the base plate at the bottom. In this very rigid form of construction, the hookswitch has no connection with the center post of the desk stand and is easily accessible for inspection.

The hookswitch contains four springs and closes two circuits when the receiver is lifted.



Hookswitch for Type 21 Wall Telephones

Code No.

Hookswitch for Desk Telephones - - - - - D-78279-A

Hookswitch for Desk Telephones Complete with Receiver Hook - - - 3200

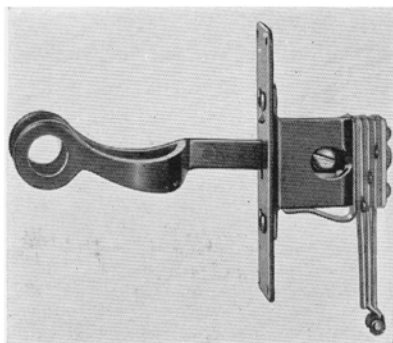
Hookswitch for Type 21 Wall Telephone

The hookswitch used on the Type 21 wall telephone is completely self-contained. The pivots for the receiver hook are a part of the framework. The hookswitch will not lose its adjustment even if the side of the telephone case should become bent. Four springs close two circuits when operated.

Code No.

Hookswitch for Type 21 Wall Telephones - - - - - D-73683-A

Hookswitch for Type 21 Wall Telephones Complete with Receiver Hook - 8100



Hookswitch for Type 200 Wall Telephones

Hookswitch for Type 200 Wall Telephone

The hookswitch used on the Type 200 wall telephone is combined with the mounting plate and the receiver hook. The unit is complete in itself and needs only to be mounted on the side of the telephone. The standard hookswitch contains three springs. Other spring combinations can be furnished, if desired.

Code No.

Hookswitch for Type 200 Wall Telephone Complete - - - - - MC-6251

The Monophone Switch

The switch which is mounted in the Monophone cradle serves the same purpose as the hookswitch of a conventional telephone—automatically switching the talking or ringing equipment into or out of the circuit. It is mounted between and beneath four prongs which guide the combination unit into position to rest on the plunger rod of the switch.

When the unit is placed upon it, the plunger rod moves downward, and, through a lever-arm, moves a pair of bakelite bushings into contact with the springs. This operates the springs and opens or closes the necessary contacts.

The springs are of thick phosphor bronze, and are stiff enough to hold the contacts tightly together, preventing sparking, and reducing the contact resistance. To prevent dust from lodging on the contacts, the springs are mounted vertically. The contact points are made of an alloy of silver and gold, which is very hard and durable.

The most commonly used spring combination is that which opens two circuits when the plunger-rod is depressed. However, for use under special conditions, we also list below switches which open one circuit and close another when operated.

The Monophone switches listed are furnished with clipped connecting cords soldered to their terminals, so that they may be installed in a few minutes, without soldering.

Monophone switch which opens two circuits when operated. For all Monophones except No. 4 and 14 and No. 8.

Monophone Switch - - - - - Code No. D-730247-A

Same as above but fitted with different connecting cords for Monophones No. 4 and 14.

Monophone Switch - - - - - Code No. D-730271-A

For No. 8 Monophone. Opens two circuits when operated.

Monophone Switch - - - - - Code No. D-730240-A

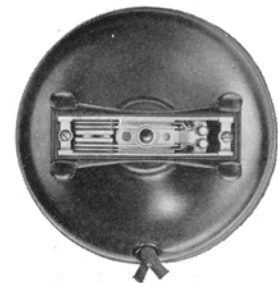
Monophone switch which opens one circuit and closes another when operated.

Monophone Switch - - - - - Code No. D-730319-A

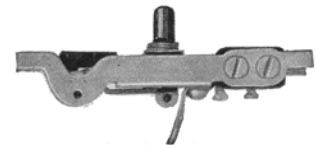
Monophone Tool

The name plate which covers the Monophone switch is held on by a nut which may be removed by means of the wrench shown herewith. This tool may also be used for loosening the bushing in the Monophone hand unit—for changing the angle of the receiver cap and as a gauge when adjusting the springs of the Monophone switch.

Monophone Tool - - - - - Code No. H-43173



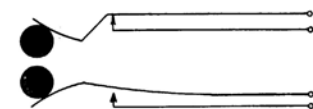
Monophone Switch



Side View of Monophone Switch



Spring Arrangement of D-730247-A

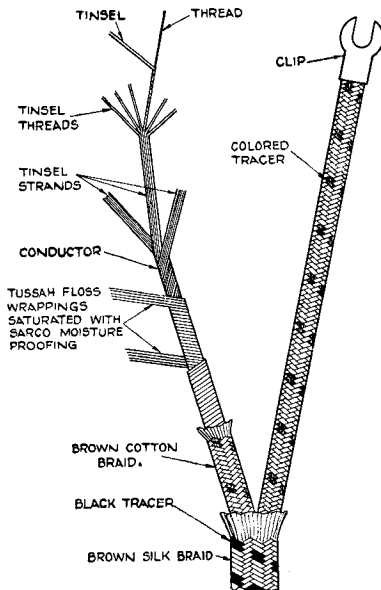


Spring Arrangement of D-730319-A



Monophone Tool

Cords



The Construction of Sarco-Treated Cords

The cords furnished with our telephones are moisture-proofed by having each conductor covered with two wrappings of cotton saturated with "Sarco," a moisture-proofing compound of high efficiency. Telephones intended for use in very damp climates are fitted with rubber-covered cords, which will resist actual immersion in water. Except for the method of moisture-proofing, both of these types of cords are alike.

An individual conductor is made as follows: An alloy ribbon, which is 99% copper and has, therefore, a very low resistance, is wound around a strong cotton thread. Six of these threads are twisted together in such a way that a strand is formed in which all strain is taken up by the cotton. By twisting together three such strands, a conductor is produced which has a resistance of less than .19 ohm per foot.

A cord is made by laying together the required number of conductors, and covering them with a brown silk braid. We find that a twisted cord is likely to be annoyingly stiff, and therefore merely lay the conductors together without twisting.

Before the connecting-clips are added, the ends of the cords are covered with tinned-copper wire, to which the clips are then firmly soldered.

Receiver Cords

Used on all receivers. Two-conductor cord, thirty-three inches long.

	Code No.
Receiver Cord, "Sarco" Treated	D-541846-A
Receiver Cord, Rubber Covered	D-542044-A

Desk Set Cords

Three-conductor cord, six feet long. Used for connecting Type 21 desk stand and No. 15-A Monophone desk stand to the ringer box.

	Code No.
Desk Set Cord, "Sarco" Treated	D-541844-A
Desk Set Cord, Rubber Covered	D-542046-A

Four-conductor cord, six feet long. Used for Monophone desk stands No. 5-A and No. 9 to the ringer box.

	Code No.
Desk Set Cord, "Sarco" Treated	D-541866-A
Desk Set Cord, Rubber Covered	D-542048-A

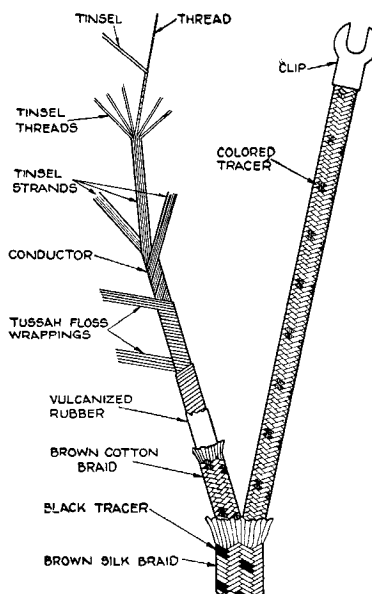
Two-conductor cord, six feet long. Used for connecting Monophone desk stand No. 7 to the ringer box—or to the terminal block for extension service.

	Code No.
Desk Set Cord, "Sarco" Treated	D-541871-A
Desk Set Cord, Rubber-Covered	D-542063-A

Cord for Monophone Hand Units

Three-conductor cord, fifty-three inches long. Used for connecting Monophone Hand Unit to the Monophone.

	Code No.
Monophone Cord, "Sarco" Treated	D-541925-A
Monophone Cord, Rubber Covered	D-542042-A



The Construction of Rubber-Covered Cords

Induction Coils

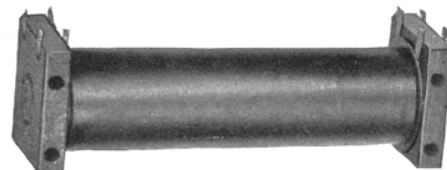
The cores of our induction coils are made up of silicon-iron strips as this material has been found to be the best for this purpose, although, for manufacturing reasons, is not generally used. The coils are wound over these cores, and ended on terminal lugs on the wooden spool heads. Connections may be made to these lugs without endangering the windings.

For Type 21 Telephones

This coil is intended for use with regular central battery booster circuits. The inner winding is 1400 turns, and has a resistance of twenty-seven ohms. The outer winding, of 1700 turns, has a resistance of fourteen ohms. The complete coil is 4" by 1 $\frac{1}{8}$ " by 1 $\frac{1}{4}$ " in size.

When furnished with our Type 21 wall telephone and ringer boxes, this coil is complete with mounting bracket and terminal strip.

	Code No.
Induction Coil, only - - - - -	D-280389
Induction Coil, Complete with Terminal Strip - - - - -	D-281249-A



D-280389

For Central Battery Monophones

The coil used with Monophones Nos. 4, 5-A, 6 and 7 has three windings. In size and general appearance it is identical with the above coil.

	Code No.
Induction Coil, only - - - - -	D-281528-A
Induction Coil, complete with Terminal Strip - - - - -	D-281527-A



D-281528-A

For Local Battery Monophones

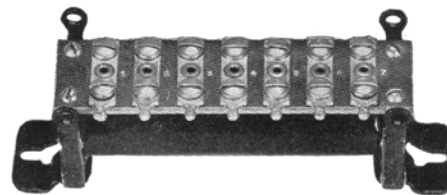
Identical in appearance and size with the above, but especially designed for magneto service.

	Code No.
Induction Coil - - - - -	D-281569-A

For Type 200 Telephones

This coil is a standard 3 terminal, short-core, induction coil and may be used in practically any standard magneto telephone. The primary winding, of 380 turns of No. 26 gauge copper wire, has a resistance of 1.8 ohms—while the secondary winding of 1520 turns of No. 28 gauge, has a resistance of 14 ohms. The dimensions of this coil are 2 $\frac{3}{4}$ " by 1 $\frac{1}{16}$ " by 1 $\frac{1}{16}$ ".

	Code No.
Induction Coil - - - - -	MC-2888

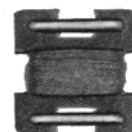


D-281249-A

Monophone Resistance Coil

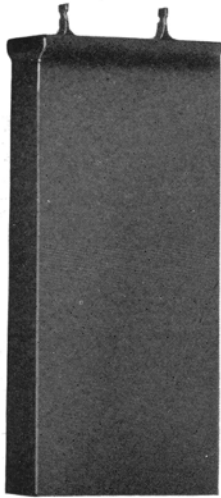
The resistance coil which is used on Monophones Nos. 11-A and 16 is wound, to a resistance of 205 ohms, on a micarta form $\frac{5}{8}$ " square. The winding ends on tinned terminals, to which exterior connections are to be soldered.

	Code No.
Monophone Resistance Coil - - - - -	D-286134-A



Resistance Coil

Condensers



Condensers

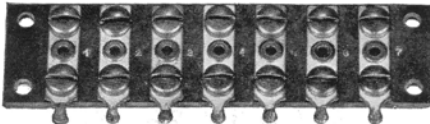
The condensers used in our telephones are of the highest grade construction being waterproof—strong—compact—easy to mount—and having constant and correct capacitance.

The complete condenser is only $2\frac{1}{2} \times 4\frac{3}{4} \times \frac{1}{8}$ in size, over all, and is fitted with soldering terminals. It is, therefore, easily mounted and connected. The capacitance is stamped into the can, preventing the annoyance of lost labels. The actual capacitance of the condenser is guaranteed to be not below, or more than fifteen per cent above the rated value.

Capacitance	Code No.
.2 m. f. - - - - -	D-68033
.5 m. f. - - - - -	D-6890
.7 m. f. - - - - -	D-6894
1.0 m. f. - - - - -	D-6897

Condenser Bracket

Made of steel, with black rustproof finish. Used for mounting the above condensers. Used on all of our wall telephones or ringer boxes.

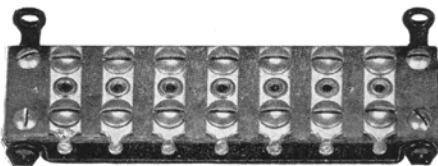


Terminal Strip D-15377-A

Condenser Bracket	Code No.
- - - - -	D-73684

Terminal Strips

The terminal strip used on our ringer boxes and wall telephones is made of phenol fiber, which is strong and is an excellent insulator. It has seven terminals, fastened by means of hollow rivets. Each of these terminals has a tip, tinned for soldering, and two screws under which cord tips or wires may be fastened.

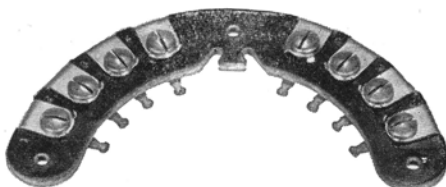


Terminal Strip D-15379-A

Terminal Strip for Wall Telephones and Ringer Boxes	Code No.
- - - - -	D-15377-A

To mount the above terminal strip on a flat surface, such as the cover of the wall telephone, it is fitted with a steel bracket which raises it from the mounting surface.

Terminal Strip with Bracket	Code No.
- - - - -	D-15379-A



Terminal Strip D-15381-A

The terminal strip which is mounted in the base of our desk stand and Monophones is similar in construction to the above strips, but curved to conform to the base. It is fitted with eight brass terminals, each of which has a tinned tip to which wire may be soldered, and a screw under which wires may be placed.

Terminal Strip for Desk Set Base	Code No.
- - - - -	D-15381-A

The Line and Cord Terminal Blocks

The terminal block illustrated is used for connecting the cord of the No. 7 or Two-Conductor Monophone to the line for extension service. It can, of course, be used wherever it is necessary or desirable to connect two pairs of wires as it is small, neat and easily mounted.

Terminal Block for No. 7 Monophone - - - - - Code No.
D-15430

A type similar to the above but containing four terminals in strip form is used with the No. 8 Monophone for connecting the four-conductor desk set cord with the two line wires and battery connections.

Terminal Block for No. 8 Monophone - - - - - Code No.
MC-1533



Line and Cord Terminal Block

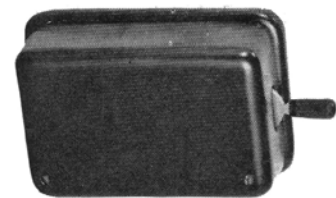
Telephone Switching Keys

The telephone switching key is intended for use where it is desirable that two or three telephones may be answered from one position—for example, a secretary may answer calls for two executives, as well as calls on her own telephone, without leaving her desk. The resultant saving of time and energy is well worth while.

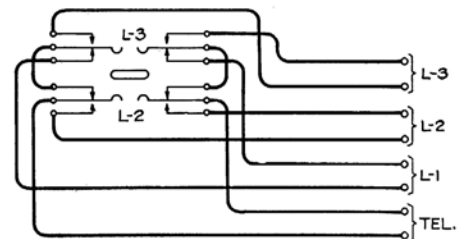
The compact unit shown herewith was designed to fill all requirements for a key for this purpose. It consists of a standard, two or three-way locking cam-type key, and an eight-point terminal strip, mounted on brackets on a pressed steel base. The key is built on a rigid metal frame. Contact springs are of nickel silver, with silver alloy contact points, and they are insulated from one another and from the frame, by hard rubber insulators. The springs are wired, through a formed cable, to brass terminals mounted on a phenol fibre strip. Screws and soldering lugs are provided for exterior connections.

The working parts of the telephone switching key are protected by a pressed steel cover which, like the base, is finished in dull black japan. The complete unit is only 1 1/2 inches high, 3 3/8 inches wide and 5 3/4 inches long, including the handle, and because of this small size, may be mounted in almost any convenient location, such as the side of a desk or table.

As may be seen from the circuit to the right, the telephone with which the key is installed is normally on L-1. When the key is thrown to the side, the telephone is put in parallel with the telephone on L-2 or L-3, with the three-way type or on L-2 with the two-way type.



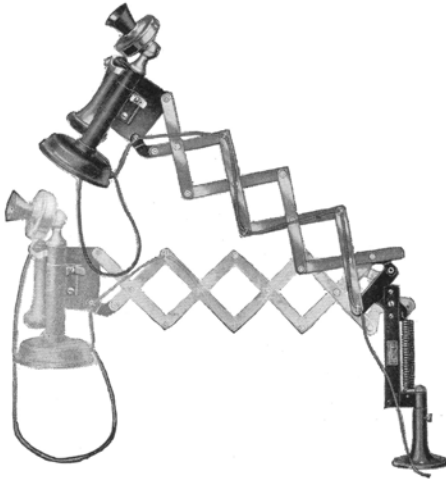
The Telephone Switching Key



Three-Way Circuit

Three-way Switching Key - - - - - Code No.
MC-8885
Two-way Switching Key - - - - - MC-8888

Telephone Brackets



Hi-Lo Bracket

Telephone brackets for use with desk stands are preferred by many telephone users. They keep the telephone off the desk, thus saving space and eliminating the possibility of overturning inkwells and other desk articles. They are especially advantageous where a telephone is used by two or more persons seated at opposite sides of a desk. They save considerable wear on the desk stand where they are apt to be subjected to rough handling.

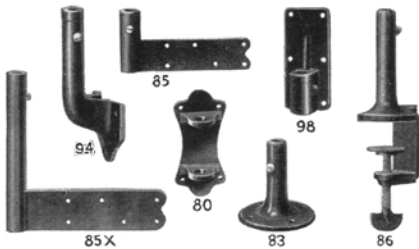
The Burns Telephone brackets, manufactured by American Electric Company, Inc., are the most widely used of all telephone brackets. They are strongly built and rigidly hold the telephone in a talking position regardless of how far extended. Made in three types—the Regular bracket—the Hi-Lo—and the Dial bracket. The Regular bracket is adjustable in-and-out. The Hi-Lo is adjustable in-and-out and up-and-down. The Dial bracket is similar to the Hi-Lo but has a special hinge in the arm to permit the base of the telephone to rest firmly on the desk for dialing.

Lengths	Regular Brackets	Code No.
26"—Extended	- - - - -	87
30"—Extended	- - - - -	107
34"—Extended	- - - - -	127
38"—Extended	- - - - -	147
42"—Extended	- - - - -	167

Lengths	Hi-Lo Brackets	Code No.
28"—Extended	- - - - -	H-87
32"—Extended	- - - - -	H-127
36"—Extended	- - - - -	H-147

Lengths	Dial Brackets	Code No.
26"—Extended	- - - - -	D-87
30"—Extended	- - - - -	D-127
34"—Extended	- - - - -	D-147

When Ordering, Specify Mounting Wanted



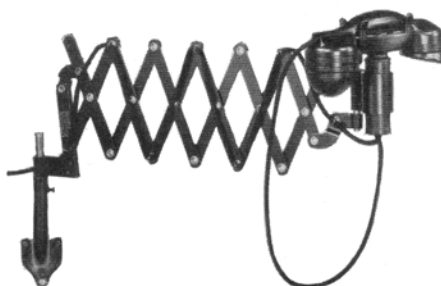
Mountings

Mountings

Mountings are furnished for attaching bracket in various positions, in whatever place is most convenient.

No. 80 for wall, post, window frames, etc. No. 90, floor pedestal.
 No. 83 for top of flat top desk. No. 94 for desk or for wall.
 Nos. 85, 85X for side of roll top desk. No. 98 for window ledge, railing, etc.
 No. 86 for clamping to edge of desk.
 (No screws required.)

The Bracket Monophone



The Bracket Monophone

The Bracket Monophone combines the convenience of an extension arm with that of the Monophone hand unit with the combined receiver and transmitter. It consists of a Monophone assembly permanently and rigidly fastened to a bracket. The bracket revolves on the base and is instantly adjustable to different lengths. The bracket is finished in black enamel. It uses the same mountings as listed above. Length 28 inches. When ordering, specify whether the Bracket Monophone is to be used for central or local battery service.

	Code No.
Bracket Monophone - - - - -	1902

Index

B		M	
Brackets—Extension Telephone	- - - - 30	Magneto Telephones	- - 11, 12, 13, 14, 15
Bracket Monophone	- - - - 30	Magneto Ringer Boxes	- - - - - 17
C		Mine Telephones	- - - - - 18
Central Battery Telephones	- -5, 6, 7, 8, 9, 10	Monophone Desk Sets	- - - - 5, 6, 11, 12
Central Battery Ringer Boxes	- - - - 16	Monophone Wall Sets	- - - - 7, 8, 13
Central Battery Ringers	- - - - 22	Monophone Extension Sets	- - - - 8, 13
Condensers	- - - - 28	Monophone Hand Unit	- - - - 19
Condenser Brackets	- - - - 28	Monophone Receiver	- - - - 19
Cords	- - - - 26	Monophone Ringer Boxes	- - - - 16, 17
Crank, Generator	- - - - 23	Monophone Switch	- - - - 25
D		Monophone Tool	- - - - 25
Desk Sets—Central Battery	- - - 5, 6, 9	Monophone Transmitter	- - - - 25
Desk Sets—Local Battery	- - - 11, 12, 14	Mouthpieces	- - - - 20
E		R	
Extension Sets	- - - - 8, 13	Receivers	- - - - 21
Extension Brackets	- - - - 30	Resistance Coil	- - - - 27
G		Ringer Boxes	- - - - 16, 17
Generators	- - - - 23	Ringers	- - - - 21, 22
Gongs, Ringer	- - - - 22	S	
H		Special Telephones	- - - - 18
Hand Unit, Monophone	- - - - 19	Strips, Terminal	- - - - 28
Hand Generators	- - - - 23	Switches, Hook	- - - - 24
Hookswitches	- - - - 24	Switch Monophone	- - - - 25
I		Switching Key	- - - - 29
Induction Coils	- - - - 27	T	
K		Telephone Switching Key	- - - - 29
Key, Telephone Switching	- - - - 29	Terminal Block, Line and Cord	- - - - 29
L		Terminal Strips	- - - - 28
Line and Cord Terminal Blocks	- - - - 29	Transmitters	- - - - 20
Local Battery Telephones	- - 11, 12, 13, 14, 15	Transmitter Mouthpiece	- - - - 20
Local Battery Ringer Boxes	- - - - 17	W	
Local Battery Ringers	- - - - 21	Wall Telephones—Central Battery	- - 7, 8, 10
		Wall Telephones—Local Battery	- - 13, 15

Ordering Information will be found on Page 4.

Price List No. 131

Applying *to* Bulletin 100
on Telephones *and*
Telephone Parts



American Electric Company, Inc.

State and 64th Street - CHICAGO, U. S. A.

Branch Office and Warehouse: 7th and Wyandotte Streets
KANSAS CITY, MO.

Prices Effective
June 1, 1929



*Subject to change
without notice*

TELEPHONES AND TELEPHONE PARTS

Central Battery Telephones

MONOPHONES—DESK TYPE

The No. 5-A Monophone
(4 Conductor Circuit) Booster Type
Catalog Page 5

These telephones comprise a combination of the No. 5-A Monophone and code No. 7008 ringer box. Furnished with straight line or harmonic ringer. For convenience in ordering, sets complete with ringer boxes are listed below under a single code number.

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
501	1400 ohm straight line ringer	\$16.80	\$17.05
501-A	16 cycle harmonic ringer	17.30	17.55
501-B	33 cycle harmonic ringer	17.30	17.55
501-C	50 cycle harmonic ringer	17.30	17.55
501-D	66 cycle harmonic ringer	17.30	17.55
501-E	25 cycle harmonic ringer	17.30	17.55
502	No. 5-A Monophone desk stand only, including hand unit	11.00	11.10

For ringer box prices only see page 5.

The No. 15-A Monophone
(Induction Coil Receiver Type)
(3 Conductor Circuit)

Catalog Page 6

Used with any conventional ringer box. Can be furnished separately or with ringer box as desired. The following codes cover sets complete with ringer boxes.

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
1501	1400 ohm straight line ringer	\$15.80	\$16.05
1501-A	16 cycle harmonic ringer	16.30	16.55
1501-B	33 cycle harmonic ringer	16.30	16.55
1501-C	50 cycle harmonic ringer	16.30	16.55
1501-D	66 cycle harmonic ringer	16.30	16.55
1501-E	25 cycle harmonic ringer	16.30	16.55
1502	No. 15-A Monophone desk stand only, including hand unit	11.00	11.10

For ringer box prices only see page 5.

The No. 7 Monophone
(2 Conductor Circuit)
Catalog Page 6

Used with any conventional ringer box or for extension service. The following codes cover sets complete with ringer boxes.

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
701	1400 ohm straight line ringer	\$17.55	\$17.85
701-A	16 cycle harmonic ringer	18.05	18.35
701-B	33 cycle harmonic ringer	18.05	18.35
701-C	50 cycle harmonic ringer	18.05	18.35
701-D	66 cycle harmonic ringer	18.05	18.35
701-E	25 cycle harmonic ringer	18.05	18.35
702	No. 7-A Monophone desk stand only, including hand unit	12.75	12.90

For ringer box prices only see page 5.

MONOPHONES—WALL TYPE

The No. 6 Monophone
(Wired for Booster Circuit)
Catalog Page 7

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
601	1400 ohm straight line ringer	\$14.35	\$14.55
601-A	16 cycle harmonic ringer	14.85	15.05
601-BB	33 cycle harmonic ringer	14.85	15.05
601-C	50 cycle harmonic ringer	14.85	15.05
601-D	66 cycle harmonic ringer	14.85	15.05
601-E	25 cycle harmonic ringer	14.85	15.05

The No. 16 Monophone
(Induction Coil Receiver Type)
Catalog Page 7

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
1601	1400 ohm straight line ringer	\$13.35	\$13.55
1601-A	16 cycle harmonic ringer	13.85	14.05
1601-B	33 cycle harmonic ringer	13.85	14.05
1601-C	50 cycle harmonic ringer	13.85	14.05
1601-D	66 cycle harmonic ringer	13.85	14.05
1601-E	25 cycle harmonic ringer	13.85	14.05

Central Battery Telephones (Con't)

MONOPHONES—EXTENSION SETS

The No. 4 Monophone
(With Induction Coil in Wall Box)
Catalog Page 8

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
401	Consisting of hand unit with cord and wall box containing spring assembly, induction coil, condenser, and terminal strip	\$11.70	\$11.80

The No. 14 Monophone
(Induction Coil Receiver Type)
Catalog Page 8

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
1401	Consisting of hand unit with induction coil type receiver and cord, also wall box containing spring assembly, condenser, and terminal strip	\$10.70	\$10.80

Note: The two conductor Monophone desk stand listed under the No. 7 Monophone can also be used as an extension set.

TYPE 21 DESK SETS

Catalog Page 9

Complete set consists of type 21 desk stand and code 7001 ringer box. For convenience in ordering we list complete sets with ringer boxes under a single code number.

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
2104	1400 ohm straight line ringer	\$13.25	\$13.50
2104-A	16 cycle harmonic ringer	13.75	14.00
2104-B	33 cycle harmonic ringer	13.75	14.00
2104-C	50 cycle harmonic ringer	13.75	14.00
2104-D	66 cycle harmonic ringer	13.75	14.00
2104-E	25 cycle harmonic ringer	13.75	14.00
2108	Type 21 desk stand only	7.20	7.30

For ringer box prices only see page 5.

TYPE 21 WALL SETS

Steel Box—Black Japan Finish—
Concealed Gongs—Booster Circuit

Catalog Page 10

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
2113	1400 ohm straight line ringer	\$10.80	\$11.05
2113-A	16 cycle harmonic ringer	11.30	11.55
2113-B	33 cycle harmonic ringer	11.30	11.55
2113-C	50 cycle harmonic ringer	11.30	11.55
2113-D	66 cycle harmonic ringer	11.30	11.55
2113-E	25 cycle harmonic ringer	11.30	11.55

MINE TELEPHONES

Catalog Page 18

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
2901	Central battery using series circuit and straight line ringer.		
	Lots 1 to 4	\$42.00	\$43.50
	Lots 5 or over	38.50	40.00
2902	Central battery using booster circuit and straight line ringer.		
	Lots 1 to 4	\$42.00	\$43.50
	Lots 5 or over	38.50	40.00

TELEPHONES AND TELEPHONE PARTS

Local Battery Telephones

MONOPHONES—DESK TYPE

The No. 9 Monophone Desk Set
Catalog Page 11

Complete sets include desk stand and ringer box which are listed under a single code number for convenience in ordering.

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
901	3 bar. gen. 1000 ohm ringer	-----	\$21.55	\$21.85
902	5 bar. gen. 1600 ohm ringer	-----	22.15	22.45
903	5 bar. gen. 2500 ohm ringer	-----	22.50	22.80

The No. 19 Monophone
Catalog Page 11

Can be used with any conventional ringer box or for extension service only. Equipment consists of hand unit with cord and desk stand with induction coil in base and 4-conductor connecting cord.

1902	Monophone desk sets as above described	-----	\$12.50	\$12.65
------	--	-------	---------	---------

The No. 8 Monophone Desk Set
Catalog Page 12

Standard equipment consists of hand unit and cord with cradle rest mounted on top of black finished steel case containing 1000 ohm ringer, 2 bar generator, induction coil, and connecting cord with terminal block.

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
801	Desk set complete as above described	-----	\$21.55	\$21.85

MONOPHONE WALL SETS

The No. 10 Monophone
Catalog Page 13

Consists of hand unit and cord with cradle rest mounted on top of black finished steel box containing 1000 ohm ringer, 2 bar generator, induction coil, and terminal strip.

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
1002	Monophone wall set complete as above described	-----	\$21.55	\$21.85

MONOPHONES—EXTENSION SETS

The No. 17 Monophone
Catalog Page 13

Use for extension service only. Consists of hand unit with cord and Bakelite wall box containing spring assembly, induction coil, and terminal strip.

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
1702	Monophone extension set	-----	\$11.70	\$11.80

TYPE 200 TELEPHONES

The Type 200 Desk Sets
Catalog Page 14

Standard telephones of this type consist of code No. 205 desk stand with ringer box equipped as below. Complete sets are listed under a single code number for convenience in ordering.

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
201	3 bar 1000 ohm	-----	\$18.25	\$18.55
202	5 bar 1600 ohm	-----	18.85	19.15
203	5 bar 2500 ohm	-----	19.20	19.50
205	Desk stand only	-----	7.25	7.35

Local Battery Telephones (Con't)

The Type 200 Wall Set

Catalog Page 15

The code numbers listed below cover compact wall type telephones with concealed gongs. Furnished with golden oak or black Duco finish. Prices do not include batteries.

(Golden Oak Finish)

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
210	3 bar 1000 ohm	-----	\$17.25	\$17.55
211	5 bar 1600 ohm	-----	17.85	18.15
212	5 bar 2500 ohm	-----	18.20	18.50

(Black Ebony Finish)

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
210-B	3 bar 1000 ohm	-----	\$17.25	\$17.55
211-B	5 bar 1600 ohm	-----	17.85	18.15
212-B	5 bar 2500 ohm	-----	18.20	18.50

The following attachments may be added to any of the compact wall sets listed. The extras charged for these attachments are as follows:

$\frac{1}{2}$ M. F. condenser in receiver circuit	-----	\$ 0.60	\$ 0.60
Code ringing push button	-----	.35	.35

MINE TELEPHONES

Local Battery

Catalog Page 18

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
2903	Local battery with 5 bar generator and 1600 ohm ringer.	-----		
	Lots 1 to 4	-----	\$45.00	\$46.75
	Lots of 5 or over	-----	41.50	43.25

Local Battery Ringer Boxes

Ringer Box for Type 200 Desk Stand

Catalog Page 17

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
220	3 bar 1000 ohm	-----	\$11.00	\$11.20
221	5 bar 1600 ohm	-----	11.60	11.80
222	5 bar 2500 ohm	-----	11.95	12.15

Ringer Boxes for No. 9 Monophone

Catalog Page 17

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
911	3 bar 1000 ohm	-----	\$11.00	\$11.20
912	5 bar 1600 ohm	-----	11.60	11.80
913	5 bar 2500 ohm	-----	11.95	12.15

Ringer Box for Extension Service

Steel Box—Black Finish—Concealed Gongs

Catalog Page 17

Code No.	Description	Price Each	F. O. B.—Chicago	F. O. B.—Kan. City
5100	1000 ohm ringer	-----	\$ 4.40	\$ 4.55
5100-A	1600 ohm ringer	-----	4.50	4.65
5100-B	2500 ohm ringer	-----	4.70	4.85
5101	1400 ohm straight line ringer and condenser	-----	5.80	5.95

TELEPHONES AND TELEPHONE PARTS

Central Battery Ringer Boxes

For Type 21 Desk Stand

Catalog Page 16

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
7001	1400 ohm straight line	\$ 6.05	\$ 6.20
7001-A	16 cycle harmonic	6.55	6.70
7001-B	33 cycle harmonic	6.55	6.70
7001-C	50 cycle harmonic	6.55	6.70
7001-D	66 cycle harmonic	6.55	6.70
7001-E	25 cycle harmonic	6.55	6.70

Ringer Boxes for No. 5-A Monophone

Catalog Page 16

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
7006	1400 ohm straight line	\$ 6.05	\$ 6.20
7006-A	16 cycle harmonic	6.55	6.70
7006-B	33 cycle harmonic	6.55	6.70
7006-C	50 cycle harmonic	6.55	6.70
7006-D	66 cycle harmonic	6.55	6.70
7006-E	25 cycle harmonic	6.55	6.70

Ringer Boxes for

Nos. 7 and 15-A Monophones

Catalog Page 16

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
D-7004	1400 ohm straight line	\$ 5.05	\$ 5.20
D-7004-A	16 cycle harmonic	5.55	5.70
D-7004-B	33 cycle harmonic	5.55	5.70
D-7004-C	50 cycle harmonic	5.55	5.70
D-7004-D	66 cycle harmonic	5.55	5.70
D-7004-E	25 cycle harmonic	5.55	5.70

Telephone Parts

MONOPHONE HAND UNITS

Catalog Page 19

Code No.	Description	Price Each—Chicago	F. O. B. Kan. City
D-40953-A	Hand unit with polarized receiver, complete including cord	\$ 5.95	\$ 6.00

Used on Monophones No. 4, 5-A, 6, 7-A, 8, 9, 10, 17 and 19.

D-40954-A	Hand unit with induction coil receiver, complete including cord	\$ 6.00	\$ 5.95
-----------	---	---------	---------

Used on Monophones No. 14, 15-A, and 16.

TRANSMITTERS

Catalog Pages 19-20

Code No.	Description	Each
D-38192-A	Monophone hand unit	\$ 1.44
D-38201-A	Type 21 wall and desk telephone	1.85
D-38213-A	Type 200 desk telephone	1.85
MC-3834	(Trans. only) type 200 wall telephone	2.00
MC-3827	(Trans. and arm) type 200 wall telephone	2.50

Transmitter Mouthpiece

D-38165	Bakelite mouthpiece for types 21 and 200 telephone	.16
---------	--	-----

RECEIVERS

Catalog Pages 19 and 21

For Monophones

Code No.	Description	Each
D-5154-A	Monophone polarized receiver	\$ 1.39

Used on Monophones No. 4, 5-A, 6, 7-A, 8, 9, 10, 17, and 19.

D-5155-A	Monophone induction coil type receiver	1.02
----------	--	------

Used on Monophones No. 14, 15-A, and 16.

Telephone Parts (Con't)

Receivers for Standard Telephones

Code No.	Description	Each
D-5151-A	Receiver with cord trimmed with spades	\$ 2.00
MC-5143	Receiver with cord trimmed with tips	2.00
D-52018	Receiver shell only	.48
D-67103	Receiver cap only	.28
D-56195	Magneto only	.69
D-3833	Diaphragm	.03

RINGERS

For Local Battery Telephones

Catalog Page 21

Code No.	Description	Price (Complete with gongs)
MC-56223-D	Ringer for No. 8 Monophone, 1000 ohm	\$1.90
MC-56221-D	Ringer for No. 9 Monophone, 1000 ohm	1.90
	Ringer for Type 200 telephone, 1000 ohm	1.90
MC-56221-E	Ringer for No. 9 Monophone, 1600 ohm	2.00
	Ringer for Type 200 telephone, 1600 ohm	2.00
MC-56221-G	Ringer for No. 9 Monophone, 2500 ohm	2.25
	Ringer for Type 200 telephone, 2500 ohm	2.25
MC-56230-D	Ringer for No. 10 Monophone, 1000 ohm	1.90

For Central Battery Telephones

Catalog Page 22

Code No.	Description	Price (Complete with gongs)
D-56164-A	Straight Line 1400 ohms	\$2.00
D-56172-A	16 cycle 2760 ohms	2.36
D-56176-A	20 cycles 2110 ohms	2.36
D-56175-A	25 cycles 2080 ohms	2.36
D-56177-A	30 cycles 1224 ohms	2.36
D-56165-A	33 cycles 528 ohms	2.36
D-56178-A	42 cycles 523 ohms	2.36
D-56173-A	50 cycles 476 ohms	2.36
D-56179-A	54 cycles 476 ohms	2.36
D-56180-A	66 cycles 476 ohms	2.36

Gongs for Above Ringers

Code No.	Description	Each
D-56166-A	2½" dia. wh. nickel finish	\$0.10
D-56166-B	2½" dia. bl. rubber Japan finish	.10

GENERATORS

Catalog Page 23

Used in Type 200 Wall and Desk Sets

Code No.	Description	Each
AC-9092	3 bar bridging	\$5.40
AC-90116	5 bar bridging	5.90

Used in No. 8 and 10 Monophone Sets

AC-90124	2 bar generator	\$7.00
----------	-----------------	--------

Generator Crank

Code No.	Description	Each
1929	Crank for above generators	\$0.20

HOOKSWITCHES

Catalog Page 24

For Types 21 and 200 Desk Stands

Code No.	Description	Each
D-78279-A	Hook switch less hook	\$1.02
3200	Hook switch complete with hook	1.50

For Type 21 Wall Telephone

D-73683-A	Hook switch less hook	\$1.13
8100	Hook switch complete with hook	1.60

For Type 200 Wall Telephone

MC-6251	Hook switch complete with hook	\$0.85
---------	--------------------------------	--------

TELEPHONES AND TELEPHONE PARTS

Telephone Parts (Con't)

MONOPHONE SWITCHES

Catalog Page 25

Code No.	Description	Each
D-730247-A	Switch complete -----	\$2.36
For all Monophones except Nos. 4-14 and 8.		
D-730271-A	Switch complete -----	\$2.36
For Monophones No. 4 and 14.		
D-730240-A	Switch complete -----	\$2.36
For No. 8 Monophone.		
D-730319-A	Switch with one make and one break contact -----	\$2.20

Monophone Tool

Catalog Page 25

Code No.	Description	Each
H-43173	Monophone tool -----	\$2.23

CORDS

Catalog Page 26
Receiver Cords

Code No.	Description	Each
D-541846-A	33" "Sarco" treated—with clips -----	\$2.18
D-542044-A	33" rubber covered—with clips -----	.318

Desk Set Cords

All Cords 72" Long—"Sarco" Treated

Code No.	Description	Each
D-541871-A	2-conductor—with clips -----	\$5.15
D-541844-A	3-conductor—with clips -----	.72
D-541866-A	4-conductor—with clips -----	.93

Rubber Covered

D-542063-A	2-conductor—with clips -----	\$6.15
D-542046-A	3-conductor—with clips -----	.82
D-542048-A	4-conductor—with clips -----	1.03

Monophone Hand Unit Cords

All Cords 53" Long

D-541925-A	3-conductor "Sarco" treated -----	\$0.72
D-54-042-A	3-conductor rubber covered -----	.82

TERMINAL STRIPS

Catalog Page 28

Code No.	Description	Each
D-15377-A	For wall telephones and ringer boxes -----	\$0.44
D-15379-A	Terminal strip with bracket -----	.61
D-15381-A	Terminal strip for desk set base -----	.42

LINE AND CORD TERMINAL BLOCKS

Catalog Page 29

Code No.	Description	Each
D-15430	Terminal block for No. 7 Monophone -----	\$0.35
MC-1533	Terminal block for No. 8 Monophone -----	.35

TELEPHONE SWITCHING KEYS

Catalog Page 29

Code No.	Description	Each
MC-8885	Three-way switching key -----	\$5.00
MC-8888	Two-way switching key -----	5.00

INDUCTION COILS

For Type 21 Telephones
Catalog Page 27

Code No.	Description	Each
D-280389	Induction coil only -----	\$0.95
D-281249-A	Induction coil with terminal strip -----	1.63

Telephone Parts (Con't)

For Central Battery Monophones

D-281528-A	Induction coil only -----	\$1.28
D-281527-A	Induction coil with terminal strip -----	1.96

For Local Battery Monophones

D-231569-A	Induction coil -----	\$1.62
------------	----------------------	--------

For Type 200 Telephones

MC-2388	Induction coil -----	\$0.75
---------	----------------------	--------

MONOPHONE RESISTANCE COIL

Catalog Page 27

Code No.	Description	Each
D-286134	Resistance coil -----	\$0.16

CONDENSERS

Catalog Page 28

Code No.	Description	Each
D-68033	.2 M. F. capacity -----	\$0.38
D-6890	.5 M. F. capacity -----	.60
D-6894	.7 M. F. capacity -----	.48
D-6897	1.0 M. F. capacity -----	.65
D-6891	2.0 M. F. capacity -----	.85

Condenser Bracket

D-73684	For mounting above condensers -----	\$0.09
---------	-------------------------------------	--------

TELEPHONE BRACKETS

Catalog Page 30

The prices shown are subject to the following discounts:

Less than 5	33 1/3 %
5 to 25	40 %
25 to 49	40-10 %
50 and over	50 %

Regular Burns Bracket

Code No.	Description	Each
87	26 in. long -----	\$4.50
107	30 in. long -----	5.00
127	34 in. long -----	5.50
147	38 in. long -----	6.00
167	42 in. long -----	6.50

Hi-Lo Burns Bracket

Code No.	Description	Each
H- 87	28 in. long -----	\$6.50
H-127	32 in. long -----	7.00
H-147	36 in. long -----	7.50

Burns Dial Bracket

Code No.	Description	Each
D- 87	26 in. long -----	\$7.00
D-127	30 in. long -----	7.50
D-147	34 in. long -----	8.00

Prices for bracket complete with 80, 83, 85, 85-X, 94 or 98 mounting and any style clamp. Add 50c to list price where No. 86 is wanted.

No. 90, Floor Pedestal -----	\$4.00
------------------------------	--------

THE BRACKET MONOPHONE

Catalog Page 30

For local or central battery service. Used with same ringer boxes as required for type 200 desk stand of 5-A Monophone desk stand.

Code No.	Description	Each
1902	Bracket Monophone only -----	\$14.00

For prices on ringer boxes used in connection with above bracket Monophone see page 4.

INDEX

B	
Brackets—Extension Telephone.....	6
Bracket Monophone	6

C	
Central Battery Telephones.....	3
Central Battery Ringer Boxes.....	5
Central Battery Ringers.....	5
Condensers	6
Condenser Bracket	6
Cords	6
Crank, Generator	5

D	
Desk Sets—Central Battery.....	3
Desk Sets—Local Battery.....	4

E	
Extension Brackets.....	6

G	
Generators	5
Gongs, Ringer	5

H	
Hand Unit, Monophone.....	5
Hand Generators	5
Hookswitches	5

I	
Induction Coils	6

K	
Key, Telephone Switching.....	6

L	
Line and Cord Terminal Blocks.....	6
Local Battery Telephones.....	4
Local Battery Ringer Boxes.....	5
Local Battery Ringers.....	4

M	
Magneto Telephones	4
Magneto Ringer Boxes.....	4
Mine Telephones	3-4
Monophone Desk Sets.....	3-4
Monophone Wall Sets.....	3-4
Monophone Extension Sets.....	3-4
Monophone Hand Unit.....	5
Monophone Receiver	5
Monophone Switch	6
Monophone Tool	6
Monophone Transmitter	5
Mouthpieces	5

R	
Receivers	5
Resistance Coil	6
Ringer Boxes	4-5
Ringers	5

S	
Strips, Terminal	6
Switches, Hook	5
Switch Monophone	6
Switching Key	6

T	
Telephone Switching Key.....	6
Terminal Block, Line and Cord.....	6
Terminal Strips	6
Transmitters	5
Transmitter Mouthpiece	5

W	
Wall Telephone—Central Battery.....	3
Wall Telephone—Local Battery.....	4