

Samson
Telephones
— for —
Private Use

Bulletin 51

Manufactured by

Samson Electric Co.

CANTON, MASS.

Products

Which We Manufacture

Are Described in Bulletins as Listed Below

Samson Fire Alarm Systems	- -	Bulletin No. 11
Samson Batteries	- - - -	Bulletin No. 31
Samson Telephones for Private Use	-	Bulletin No. 51
Samson House Goods	- - -	Bulletin No. 71
Samson Annunciators	- - -	Bulletin No. 91
Perlex Waterproof Ignition	- -	Bulletin No. 111

Any of the above bulletins sent on request

Samson Electric Co.

CANTON, MASS.

Manufacturers since 1882

Samson Telephones

For Private Use

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Home Office and Factory
Canton, Mass.



15 miles from Boston

Introduction

The **Samson** telephone apparatus described in this catalogue is the result of thirty-four years of electrical specialization and the intelligent criticism of thousands of skilled construction men and exacting users.

Pioneers in the development of apparatus for use in homes, hotels, apartment houses, in schools and institutions generally, for manufacturing plants, offices and local business requirements of every nature, it has been our constant aim to furnish devices of reliability and accuracy, capable of giving years of service under the severest tests and hardest usage.

The cumulative results of these years of experience, entering as they do into each detail of construction, combine to make our products of **superior strength**. This is, therefore, the significance of our trade mark and the foundation upon which our reputation — our most valued asset — is built.

Our instruments are manufactured by us in our own factory, and by mechanics who have had years of experience in this work. We guarantee all equipment to be perfect, both electrically and mechanically, and any part showing defect caused by faulty manufacture will be repaired free of charge at our factory at any time, provided transportation charges are prepaid.

We have attempted to make this catalogue so simple and clear that our customers can easily select the telephone systems or apparatus which they require. We furnish not only a complete line of telephone instruments for interior use but also complete accessory equipment including our own cables and batteries. Any inquiry for special instruments or for details concerning apparatus mentioned in this catalogue will be promptly given.

Samson Electric Co.

CANTON, MASSACHUSETTS

SAMSON

Inter-Communicating Telephones

Automatic Non-Interfering System.
Selective Ringing — Selective Talking.

SERVICE FOR WHICH DESIGNED. Each station can selectively ring and talk with any other station. As every station has a separate talking circuit with each other station, several simultaneous conversations can be held, the number of which is only limited by the number of stations installed. Instruments are designed for 8-12-16-20-24 station capacity, and can be made in larger sizes in multiples of four.

Operation. The operation of this system is very simple and natural. To call, the push button corresponding with the party wanted is pushed all the way in, which rings the bell at the station wanted, and there only. When the finger is removed, the button comes back half way where it is locked to make the talking connection and the conversation can take place. If the called station does not immediately answer, another depression of the push button rings the bell again, and the signal is given whether the receiver is on or off the hook. Upon the conclusion of the conversation, placing the receivers on their respective hooks, returns all connections to normal and releases the push button to its normal position, viz: all the way out. If it is desired to call another station immediately after finishing the conversation, the receiver need not be hung up, because a depression of the button for the new call automatically disconnects the previous one. All operations are performed by the one push button.

Construction of Automatic Mechanism. The push button switch mechanism shown in the accompanying cut is a self-contained metal unit fully insulated; its adjustment, therefore, is permanent. The locking arrangement consists of a plate which slides freely in grooves by gravity; it is substantially frictionless. The line springs are riveted on an insulating base and their ends rest normally under constant tension against an insulating strip. The depression of a push button brings its plunger into contact with its respective line spring, still preserving its tension and insuring a positive rubbing contact.

The contact for ringing is made on insulated springs secured to the supporting bridge and gives a positive rubbing contact. Pushing a button unfailingly releases any button previously depressed, inasmuch as each plunger terminates in a double cone one of which is made larger than the other so that if the first should not release, the second will. The push plungers are controlled by spiral phosphor bronze springs, thus relieving the contact springs of this extra burden.

The hook release is also of simple construction. It consists of but a single moving part, which is tripped by a metal tongue. It is in contact with the locking part only at the moment of operation and, therefore, does not impede its perfect working when actuated by the push button plungers.

SELECTION OF APPARATUS

Telephones. Refer to pages 6 to 9.

All telephones designed to be used on this system are interchangeable, and varied types of instruments may be used in the same installation in order to better suit the location of the station, or to correspond with other fittings. All are made with our standard mechanism and will give uniformly accurate service. Each instrument should have at least as many buttons as there are stations and it is wise to have one or two extra for possible later additions. Each station need not be connected with every other station unless such service is desired. It should be noted that pattern 830 is not made in over 23 buttons.

Cables. Refer to page 61.

We have furnished cables especially designed to meet the requirements of this system for over fifteen years. We strongly recommend the use of Samson Damp-proof multi-conductor cables for wiring not exposed to moisture, and Samson Water-proof multi-conductor cables for installations where iron conduit is used, for out-door use, and wherever exposed to moisture. These cables will save time and insure a perfect installation.

Batteries. Refer to page 60.

The Samson battery has proven through years of service to be the best of all cells for intermittent work. We have no hesitation in saying that for all telephone installations they will give better and far longer service than any other.

Wiring Diagram. Refer to pages 10 and 11.

The standard diagrams are Nos. 354 and 355. Special wiring diagrams will be furnished to meet any special requirements. Where "taps" must be made use Samson Safeguard Junction box (page 7).



Push-button switch with the upper two line springs cut away showing the topmost cone-plunger locked in raising position and the next below at rest with point just within the locking plate, in normal position

SURFACE STYLES

Pattern 800.



Pattern 800

This instrument is the most popular style for the average business or home installation. The cabinet is made of quartered oak with mortised corners and the surface is handsomely finished. It is furnished with our standard equipment throughout and our Samson long receiver. The telephone and backboard are separable. All of the mechanism is contained in the front cabinet, which is mounted on the backboard by removable pin hinges. This construction saves the use of junction boxes as the backboard serves this purpose. In installing the instrument the backboard may be set in place and the wiring completed without exposing the telephone mechanism to injury or dirt while the "roughing in" work is being done. The telephone proper can later be easily attached.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall
Inches. Depth includes mouthpiece.

	Wide	High	Deep	List Price, each
8 buttons	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{3}{4}$	\$26.00
12 "	6 $\frac{3}{4}$	12	4 $\frac{3}{4}$	23.20
16 "	6 $\frac{3}{4}$	13 $\frac{1}{4}$	5	26.40
20 "	6 $\frac{3}{4}$	14 $\frac{1}{2}$	5	29.60
24 "	6 $\frac{3}{4}$	15 $\frac{3}{4}$	5	32.80

Prices for larger sizes quoted on application.

Pattern 801.



Pattern 801

This instrument is similar to the style shown above except that the hand set is used in place of the separate transmitter and receiver. The same cabinet is used and the same separable telephone and backboard feature is found here. It has the additional advantage that it may be placed where it is impossible for the person conversing to stand close to the instrument or where the instrument will be used by persons of different stature. It contains our standard switch mechanism and hook release, and Samson all metal hand set. It is a very durable and satisfactory instrument.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall.
Inches.

	Wide	High	Deep	List Price, each
8 buttons	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{3}{4}$	\$26.00
12 "	6 $\frac{3}{4}$	12	4 $\frac{3}{4}$	23.20
16 "	6 $\frac{3}{4}$	13 $\frac{1}{4}$	5	32.40
20 "	6 $\frac{3}{4}$	14 $\frac{1}{2}$	5	35.60
24 "	6 $\frac{3}{4}$	15 $\frac{3}{4}$	5	38.80

Furnished with 5 feet green silk flexible cable.
Prices for larger sizes quoted on application.

FLUSH STYLES.

Patterns 820 Wood and 825 Metal.

These instruments are designed for use in nicely finished interiors, in residence, office or institution, where it is desired to have the instrument set flush with the wall. They are identical except for the material used in the face plate and have our standard equipment throughout and Samson watch case receiver. They may be finished to suit the design of the architect or to match the other fittings in the particular room where they are installed. All the mechanism is mounted on the back of the face plate so that the telephone proper is entirely separable from the terminal board which is mounted in the Samson iron outlet box (see page 54) which must be used with this style. In these as in all our flush patterns the separable feature of the telephone and terminal board is provided. These instruments are suitable for the finest interiors.

Prices below are for Golden Oak and Brush Brass finish respectively. Other finishes charged at an advance in cost; price depending on finish and quantity.

	Dimensions of face, Inches		Dimensions of outlet box Overall, Inches			List Price each
	Wide	High	Wide	High	Deep	
8 buttons	5 $\frac{5}{8}$	10 $\frac{1}{4}$	4 $\frac{1}{2}$	9	3 $\frac{1}{2}$	\$27.00
12 "	5 $\frac{5}{8}$	11 $\frac{1}{2}$	4 $\frac{1}{2}$	10 $\frac{1}{4}$	3 $\frac{1}{2}$	30.20
16 "	5 $\frac{5}{8}$	12 $\frac{3}{4}$	4 $\frac{1}{2}$	11 $\frac{1}{2}$	3 $\frac{3}{4}$	33.40
20 "	5 $\frac{5}{8}$	14	4 $\frac{1}{2}$	12 $\frac{3}{4}$	3 $\frac{3}{4}$	36.60
24 "	5 $\frac{5}{8}$	15 $\frac{1}{4}$	4 $\frac{1}{2}$	14	3 $\frac{3}{4}$	39.80

Price includes iron outlet box.

Prices for larger sizes quoted on application.



Pattern 825

Patterns 821 Wood and 826 Metal.

These instruments combine the advantages of our flush telephones as shown above and our pattern 801 previously described. They are equipped with our standard automatic switch mechanism and hook release, and Samson all metal hand set. They are designed for use with our Samson iron outlet box, (see page 54) and are particularly desirable for use in fine residences.

Prices below are for Golden Oak and Brush Brass finish respectively. Other finishes charged at an advance in cost; price depending on finish and quality.

	Dimensions of face, Inches		Dimensions of outlet box Overall, Inches			List Price, each
	Wide	High	Wide	High	Deep	
8 buttons	5 $\frac{5}{8}$	10 $\frac{1}{4}$	4 $\frac{1}{2}$	9	3 $\frac{1}{2}$	\$33.00
12 "	5 $\frac{5}{8}$	11 $\frac{1}{2}$	4 $\frac{1}{2}$	10 $\frac{1}{4}$	3 $\frac{1}{2}$	36.20
16 "	5 $\frac{5}{8}$	12 $\frac{3}{4}$	4 $\frac{1}{2}$	11 $\frac{1}{2}$	3 $\frac{3}{4}$	39.40
20 "	5 $\frac{5}{8}$	14	4 $\frac{1}{2}$	12 $\frac{3}{4}$	3 $\frac{3}{4}$	42.60
24 "	5 $\frac{5}{8}$	15 $\frac{1}{4}$	4 $\frac{1}{2}$	14	3 $\frac{3}{4}$	45.80

Price includes iron outlet box.

Furnished with 5 feet green silk flexible cable.

Prices for larger sizes quoted on application.



Pattern 826

DESK STYLES.

Pattern 835.



Pattern 835

This instrument is identical with our pattern 801 previously described except that the backboard is made to conform to the lines of and is finished to match the front cabinet. An iron bracket is permanently attached to the instrument and arranged to be mounted at the left side of a flat top or roll top desk. It is an ideal combination for such use, as it relieves the desk of any encumbrance and enables the user to sit in a comfortable position while conversing.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

	Dimensions of Backboard Overall			List Price, each
	Inches. Wide	High	Depth	
8 buttons	3 $\frac{1}{4}$	9 $\frac{1}{4}$	3	\$28.40
12 "	3 $\frac{1}{4}$	10 $\frac{1}{2}$	3	31.60
16 "	3 $\frac{1}{4}$	11 $\frac{3}{4}$	3 $\frac{1}{4}$	34.80
20 "	3 $\frac{1}{4}$	13	3 $\frac{1}{4}$	38.00
24 "	3 $\frac{1}{4}$	14 $\frac{1}{4}$	3 $\frac{1}{4}$	41.20

Furnished with 5 feet green silk flexible cable.

Prices for larger sizes quoted on application.

Pattern 830.



Pattern 830

While we do not advocate portable desk stands for inter-communicating systems as we cannot guarantee flexible cable against breaking owing to the constant bending to which it is subjected in use, we believe that this instrument is more simple and accessible than those furnished by others. It is furnished with our standard transmitter and Samson long receiver, but requires a special switch mechanism and hook release. The index to stations is placed under a transparent covering which is mounted on the base back of the row of push buttons. With this instrument is provided a terminal box with buzzer attachment for signaling.

Prices below are for Polished Nickel finish. Other finishes charged at an advance in cost; price depending on finish and quantity. Price includes 5 ft. green silk flexible cable and terminal box with buzzer on it.

	Dimensions of terminal box Overall, Inches.			List Price, each
	Wide	High	Deep	
8 buttons	5 $\frac{1}{8}$	9	1 $\frac{1}{8}$	\$38.00
12 "	5 $\frac{1}{8}$	10	1 $\frac{1}{8}$	42.00
16 "	5 $\frac{1}{8}$	11	1 $\frac{1}{8}$	46.00
20 "	5 $\frac{1}{8}$	12	2 $\frac{1}{8}$	50.00
24 "	5 $\frac{1}{8}$	13	2 $\frac{1}{8}$	53.00

This style not made with more than twenty-three buttons.

Pattern 833.

This type combines the popular desk stand with a separate movable cabinet in which is mounted the automatic switch mechanism. The desk set is of our standard type with No. 20 Samson transmitter and Samson long receiver. The switch button cabinet is made of oak, is well put together, and handsomely finished, and makes a handsome appearance on a desk. With this instrument is furnished also a terminal box with buzzer attachment for signaling, which is attached to the switch button cabinet by green silk flexible cable. The desk stand is attached to the other end of the cabinet. The push button in this instrument is restored electrically by an incoming call.

Prices below are for golden oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity. Price includes in addition to desk set and button cabinet (as illustrated) a terminal box with buzzer, 5 ft. green silk flexible cable between desk set and button cabinet and also 5 ft. green flexible cable between button cabinet and terminal box.

	Dimensions of push button cabinet, Overall, Inches.			Dimensions of terminal box, Inches.			List Price, each
	Wide	High	Deep	Wide	High	Deep	
8 buttons	5½	9¼	3	5	9	1½	\$28.40
12 "	5½	10½	3	5	9	1½	31.60
16 "	5½	11¾	3¼	5	9	1½	34.80
20 "	5½	13	3¼	5	11	2½	38.00
24 "	5½	14¼	3¼	5	11	2½	41.20

Prices for larger sizes quoted on application.



Pattern 833



Push Button Cabinet

Pattern 834.

This instrument is similar to our pattern 833 above described except that the hand set is used in place of the desk set. The same push button cabinet is used and the same cable attachments are made between hand set and button cabinet and terminal box with buzzer. This type has the advantage of that shown above in that the hand set may be hung at the side of the desk or placed in any position on the desk desired. It is provided with a key in the handle of the hand set which makes and breaks the talking connection. The push button is restored electrically by an incoming call.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity. Price includes in addition to hand set and button cabinet (as illustrated), a terminal box with buzzer on it, 5 ft. green silk flexible cable between hand set and button cabinet and also 5 ft. green silk flexible cable between button cabinet and terminal box.

	Dimensions of push button cabinet Overall, Inches.			Dimensions of terminal box, Inches.			List Price each
	Wide	High	Deep	Wide	High	Deep	
8 buttons	5½	9¼	3	5	9	1½	\$28.40
12 "	5½	10½	3	5	9	1½	31.60
16 "	5½	11¾	3¼	5	9	1½	34.80
20 "	5½	13	3¼	5	11	2½	38.00
24 "	5½	14¼	3¼	5	11	2½	41.20

Prices for larger sizes quoted on application.



Pattern 834

WIRING DIAGRAM No. 354

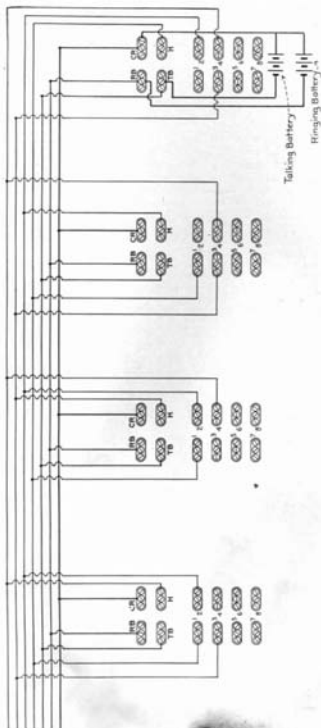


Diagram No. 354. This is the conventional diagram for Automatic Inter-Communicating telephone systems, but for the SAMSON Automatic Non-Interfering System we recommend diagram No. 355 on the following page.

WIRING DIAGRAM No. 355

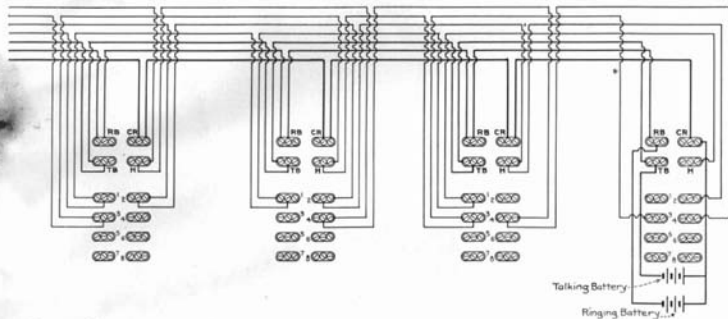


Diagram No. 355 for SAMSON Automatic Non-Interfering Systems. This is the most desirable method of wiring because it is handier, quicker, and makes a saving in labor and junction boxes.

SAMSON

Inter-Communicating Telephones

Common-Talking System.

Selective Ringing — Common Talking.

SERVICE FOR WHICH DESIGNED. Each station can selectively ring and talk with any other station. Only one conversation can be held at one time and, as all stations are connected to one talking circuit, any station can listen in. Instruments are designed for 4-8-12 station capacity, and can be made in larger sizes in multiple of two.

Operation. To call, the push button corresponding with the party wanted is pushed in, which rings the bell at the station selected and there only. Removing the receiver from the hook makes the talking connection, thus completing the service. As the talking and ringing circuits are entirely separate, a station may be rung with the receiver either on or off the hook. Where the Samson Hand Set is used, if preferred, a rigid hook may be used, in which case the talking connection is made and broken by a key in the handle.

Standard Equipment. All instruments for this service are equipped with our Standard No. 20 Transmitter, Watchcase Receiver, Permanent Adjustment Bells, and our No. 20 Switch Hook with safety chain, to protect the battery if the receiver is accidentally left off the hook. Samson long receiver can be furnished if desired.

SELECTION OF APPARATUS

Telephones. Refer to pages 13-16.

All telephones designed for this system are interchangeable and should be chosen to suit the needs of each station. Each instrument should have at least as many buttons as there are stations and it is wise to have one or two extra for possible later additions. Each station need not be connected with every other station unless such service is desired.

Cables. Refer to pages 61.

Our Samson Multi-Conductor cables are strongly recommended for these systems. They will save time in installation and insure a perfect installation. Where "taps" must be made use Samson Safeguard Junction Box (page 56).

Batteries. Refer to page 60.

If you wish the best service you will use Samson Batteries on both talking and ringing circuits.

Wiring Diagrams. Refer to page 17.

The proper wiring diagram for this system is No. 254. It should be noted that each system requires a No. 300 Retardation Coil (see page 57).

SURFACE STYLES

Pattern 351.

This instrument is similar in outward appearance to our pattern 800 except that it has a watch case receiver and switch hook instead of the long receiver type, and has not the automatic push buttons and button plate. The cabinets used are identical, have the same beautiful appearance, and the same separable feature between backboard and telephone. It makes a very desirable instrument for business purposes in small installations, and is well adapted for use in the service portions of home systems.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall.
Depth includes mouthpiece. Inches.

	Wide	High	Deep	List Price, each
4 buttons	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{1}{4}$	\$12.54
8 "	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{1}{4}$	14.22
12 "	6 $\frac{3}{4}$	12	4 $\frac{1}{4}$	15.90
Extra for long receiver				2.00

Prices for larger sizes quoted on application.



Pattern 351

Pattern 352.

This instrument serves the same purposes for Common Talking systems that our pattern 801 does in automatic systems. It is identical in outward appearance except for the type of push buttons used and the lack of button plate. The same cabinet is used as in all our other intercommunicating wall telephones. If desired, this instrument can be furnished with a rigid hook which may be attached to the instrument itself, to the wall, or to a desk or other convenient place. In such case the hand set is provided with a key in its handle to make and break the talking connection.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall.
Depth includes mouthpiece. Inches.

	Wide	High	Deep	List Price, each
4 buttons	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{1}{4}$	\$18.54
8 "	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{1}{4}$	20.22
12 "	6 $\frac{3}{4}$	12	4 $\frac{1}{4}$	21.90

Furnished with 5 feet green silk flexible cable.
Prices for larger sizes quoted on application.



Pattern 352

FLUSH STYLES

Patterns 451 Wood and 421 Metal.



Pattern 421

These instruments are identical in outward appearance with our patterns 820 and 825 and are the most popular design for nicely furnished interiors in residence and office where the flush style is especially desirable. All of the mechanism is standard and is attached to the back of the front plate. Tin wall boxes are furnished with these instruments without extra charge and for the average installation these are quite satisfactory. Where iron conduit construction is used, however, and to secure the most satisfactory installation, the Samson Iron Outlet Box (see page 54) should be used. These may be installed during the construction of the building and the telephones later set in place.

Prices below are for Golden Oak and Brush Brass finish respectively. Other finishes charged at an advance in cost; price depending on finish and quantity.

	Dimensions of face		Dimensions of wall opening.			List Price, each
	Overall.	Inches.	Wide	High	Deep	
4 buttons	5 $\frac{1}{4}$	10 $\frac{1}{4}$	4 $\frac{1}{2}$	9	3 $\frac{1}{2}$	\$17.28
8 "	5 $\frac{3}{4}$	10 $\frac{1}{4}$	4 $\frac{1}{2}$	9	3 $\frac{1}{2}$	20.16
12 "	5 $\frac{3}{4}$	11 $\frac{1}{2}$	4 $\frac{1}{2}$	10 $\frac{1}{4}$	3 $\frac{1}{2}$	23.04
Above price includes tin outlet box. Iron outlet box, all sizes.						1.80
Prices for larger sizes quoted on application.						



Pattern 422

Patterns 452 Wood and 422 Metal.

These instruments are identical in outward appearance with our patterns 821 and 826. The mechanism is similar to the telephones above except that the hand set takes the place of separate transmitter and receiver. They may be furnished with rigid hook and talking key in handle and this type is preferred by many over all others for home use. When thus arranged they may be used from nearby desk or couch, the hand set may be left off the hook without injury to the battery and a call answered without the necessity of rising. Tin wall boxes supplied without extra charge.

Prices below are for Golden Oak and Brass Brush finish respectively. Other finishes charged at an advance in cost; price depending on finish and quantity.

	Dimensions of face		Dimensions of wall opening.			List Price, each
	Overall.	Inches.	Wide	High	Deep	
4 buttons	5 $\frac{1}{4}$	10 $\frac{1}{4}$	4 $\frac{1}{2}$	9	3 $\frac{1}{2}$	\$23.28
8 "	5 $\frac{3}{4}$	10 $\frac{1}{4}$	4 $\frac{1}{2}$	9	3 $\frac{1}{2}$	26.16
12 "	5 $\frac{3}{4}$	11 $\frac{1}{2}$	4 $\frac{1}{2}$	10 $\frac{1}{4}$	3 $\frac{1}{2}$	29.04
Above price includes tin outlet box. Iron outlet box, all sizes.						1.80
Furnished with 5 feet green silk flexible cable.						
Prices for larger sizes quoted on application.						

DESK STYLES

Pattern 435.

This instrument is the same in outward appearance as our pattern 835 except for the automatic push buttons and plate. In construction it is identical with our pattern 352 except that the backboard is made to conform to the lines of and is finished to match the front cabinet. The iron bracket for desk mounting is our standard and is arranged for mounting to the left side of the desk. It is an ideal desk instrument as it occupies no desk room and can be easily distinguished from the Bell telephones where these are used at the same desk.

Prices below for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

	Dimensions of cabinet Overall Not including bracket. Inches.			List Price, Each
	Wide	High	Deep	
4 buttons	5½	9½	3	\$21.00
8 "	5½	9½	3	22.68
12 "	5½	10½	3	24.36

Furnished with 5 feet green silk flexible cable.
Prices for larger sizes quoted on application.



Pattern 435

Pattern 134

This instrument is identical in outward appearance with our pattern 830 and is furnished with our standard equipment and long receiver. Owing to the necessary use of large cable with this instrument, subject by use to constant bending and twisting, we do not recommend the use of this type of telephone. We believe our other desk styles are fully as handsome and much more durable. With this instrument is furnished a terminal block and buzzer and five feet of green silk flexible cable having tinsel conductor.

Price includes terminal block with buzzer and 5 ft. green silk flexible cable.

	List Price, each
4 buttons	\$27.00
8 "	31.00
12 "	35.00

Prices for larger sizes quoted on application.



Pattern 134

Pattern 131.



Pattern 131

This instrument combines our No. 248 push button block and standard desk set. These are arranged to be separately connected to a terminal block with buzzer which can be mounted beneath the desk or in some other convenient place. The Desk Set and push button block are not connected, which permits the push button block to be placed where most convenient, either on or at the side of the desk or nearby wall. The push button block is of quartered oak and the card holder can be furnished with place for both name and number if desired.

Price includes Desk Stand and No. 248 Push Button Block (as illustrated) 5 ft. green silk flexible cable and terminal block with buzzer on it.

List Price, each

4 buttons	\$21.00
8 "	22.68
12 "	24.36

Prices for larger sizes quoted on application.



No. 248 Push Block

Pattern 434.

This instrument is similar to pattern 131 except that our Standard Hand Set with talking key in handle is used instead of the Desk Set. A rigid hook is furnished, suitable for fastening at the side of desk or on wall. This is a very serviceable outfit, as all parts are capable of installation in convenient places without occupying needed room on the desk, and the Hand Set enables the user to sit in a comfortable position while conversing.

Price includes hand set and No. 248 Push Button Block (as illustrated) 5 ft. green silk flexible cable and terminal block with buzzer on it.

List Price, each

4 buttons	\$21.00
8 "	22.68
12 "	24.36

Prices for larger sizes quoted on application.



Pattern 434

WIRING DIAGRAM No. 254

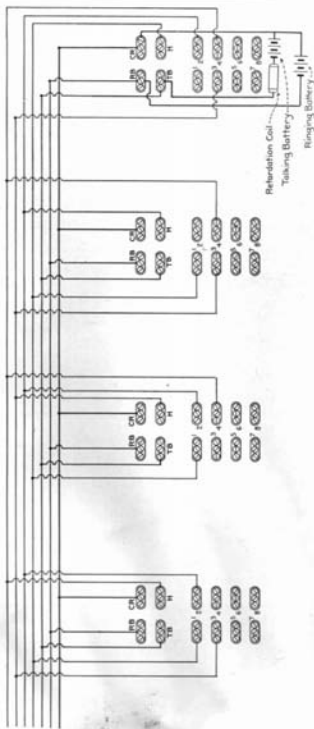


Diagram No. 254. This is the proper diagram to use in installing the SAMSON Common Talking Inter-Communicating system of telephones. The contractor will see that this system requires a No. 300 Retardation Coil and is not complete without it. (See page 57.)

SAMSON

Central Station Systems

We outline below four of our central station systems which are suitable for installations where it is desirable to have the central station supervise all calls between outlying stations.

Common-Talking Systems

Master Telephone System. This furnishes at the lowest cost a simple system for small installations. As only one conversation can be held at a time it is not recommended where heavy service is anticipated.

Master Telephone and Annunciator System. This system has at the central station in addition to the master telephone an annunciator which leaves a record of unanswered calls. This is a very desirable system where there is no regular attendant at central.

Non-Interfering Systems

Annunciphone Switchboard System. This is the least expensive switchboard installation. The telephone and annunciator are here combined in one instrument, and the use of plug connection permits private conversation between all stations, and several simultaneous conversations. It is therefore a desirable system for larger installations.

Rotokoll Switchboard System. This is the most efficient and desirable central station installation. It is metallic circuit throughout, is simple in operation, and the most efficient and convenient in use.

The description of each of these systems is later set forth in an explicit and comprehensive manner, in order that the details may be readily understood and the most desirable system selected to meet the requirements of each case.

MASTER TELEPHONE SYSTEM

Common Talking.

SERVICE FOR WHICH DESIGNED. The central station can selectively ring and talk with any outlying station and at the request of an outlying station ring any other outlying station so that they may converse, supervising if it desires such conversation. Any outlying station may ring and talk with central. Only one conversation can be held at one time. The central station must do all ringing for service between outlying stations, and if central is absent no record is left of stations desiring attention.

Operation. The outlying telephones call the central station by pushing the single button supplied on each telephone. This rings the bell at the central station but gives no indication to show central which station is calling. Central must ask for this information, if wanted. Upon request of an outlying station, the central can ring the station desired by pressing the button on the central instrument corresponding to the station wanted. Inter-communication between outlying stations is thus obtained, but no signal may be given therefor, except by the approval and through the cooperation of central. The central station can selectively call and talk with any station by pushing the button corresponding to the station desired. As all telephones are connected in one talking circuit, only one conversation may be held at a time and can be overheard at any station.

Standard Equipment. The master telephones furnished for this system are our Standard Common Talking Inter-Communicating instruments, wired for this service. The outlying stations furnished with this system are our Standard Single Point Telephones. The letter "A" added to our telephone pattern numbers means wired for this service.

Central Station Master Telephones



Pattern 134



Pattern 421



Pattern 435



Pattern 434



Pattern 351



Pattern 422



Pattern 352



Pattern 131



SELECTION OF APPARATUS

Master Telephone System

Telephones. For master station choice should be made from master telephones shown on page 19, and described in detail on pages 13 to 16 inclusive. One telephone of sufficient capacity is required. For outlying stations choice should be made from our standard Single Point Telephones shown on page 23, and described in detail on pages 33, 34 and 35. Select one telephone for each station desired.

Cables. Refer to page 62. We strongly recommend the use of our Samson 3-conductor cables. These cables will save time and assure a perfect installation.

Batteries. Refer to page 60. The Samson battery will give the best service not only on account of its long life, but also because its higher quality will give better transmission.

Wiring Diagrams. Refer to page 24. The proper wiring diagrams are Nos. 637 and 638, according to the type of master telephone used. It should be noted that each system requires a No. 300 Retardation Coil (see page 57.)

CENTRAL STATION MASTER TELEPHONES

No. of Buttons	Pat. 331A	Pat. 332A	Pat. 421A	Pat. 422A	Pat. 435A	Pat. 131A	Pat. 131A	Pat. 434A
4	12.54	\$18.54	\$17.28	\$23.28	\$21.00	\$27.00	\$21.00	\$21.00
8	14.22	20.22	20.16	26.16	22.68	31.00	22.68	22.68
12	15.90	21.90	23.04	29.04	24.36	35.00	24.36	24.36

Price includes tin box with Patterns 421 and 422.

No. 300 Retardation Coil, extra list \$1.10

Iron outlet box for use with Patterns 421 and 422 extra list \$1.80.

For measurements see pages 13 to 16. Prices for larger sizes quoted on application.

OUTLYING STATION TELEPHONES.

No. of Buttons	Pat. 201A	Pat. 311A	Pat. 401A	Pat. 411A	Pat. 701A	Pat. 130A	Pat. 234A
1	\$7.40	\$7.40	\$8.47	\$8.47	\$11.00	\$17.00	\$12.00

Price includes wood or tin box with Patterns 401 and 411.

For measurements see pages 33 to 35 inclusive.

Iron outlet Box for use with Patterns 401 and 411 extra list \$1.10.

MASTER TELEPHONE AND ANNUNCIATOR SYSTEM.

Common Talking.

SERVICE FOR WHICH DESIGNED. The central station can selectively ring and talk with any outlying station, and at the request of an outlying station can ring any other outlying station so that they may converse, supervising if it desires such conversation. Any outlying station may ring and talk with central. Only one conversation can be held at one time. The central station must do all ringing for service between outlying stations and reset the annunciator, which indicates the stations desiring attention during the absence of central, until reset.

Operation. This system is similar in operation to our Master Telephone System. The talking service is identical and the ringing service the same, except that the bell at the central station is on the annunciator instead of the telephone, and the ringing current electrically operates a drop on the annunciator corresponding with the station calling, which remains indicating until reset by central, thus leaving a record of calls made during absence. The indicating drops may be reset manually by means of a mechanical reset mounted on the annunciator, or electrically by a push button on the telephone instrument.

Annunciators for use with Central Station Master Telephones



Pattern 30—Flush Style



Pattern 10—Rival Style



Pattern 90—Marine Style



Pattern 20—Avoniat Style

Standard Equipment. The telephones furnished for this system are the same as those supplied with our Master Telephone System except that the master telephones are not equipped with ringing mechanisms. The letter "B" added to telephone pattern number means wired for this service. The annunciators furnished are our standard patterns, equipped with our Ross Needle Drop.

SELECTION OF APPARATUS

Master Telephone and Annunciator System

Telephones. For central station the most desirable instruments are our patterns No. 131 and No. 134, as the ringing mechanism in these instruments is separate and can easily be omitted. Any of our standard Master Telephones shown on page 19 and fully described on pages 13 to 16 inclusive may be arranged for this use. One telephone only is required. The annunciators furnished for this system are illustrated on page 21, and are fully described in our Bulletin No. 91. They are our standard instruments. For outlying stations any of our Single Point Telephones shown on page 23 and described in detail on pages 33 to 35 inclusive may be selected.

Cables. This system may be more conveniently wired by running the wires singly rather than in cable form as the annunciator and telephone at the central station are rarely located together.

Batteries. The Samson battery is the dependable source of energy for all central station systems; requirements given on page 60.

Wiring Diagrams. Refer to page 23. The proper wiring diagrams are Nos. 639 and 660 according to the type of Master Telephones used.

CENTRAL STATION MASTER TELEPHONES.

No. of Buttons	Pat. 351B	Pat. 352B	Pat. 421B	Pat. 422B	Pat. 435B	Pat. 134B	Pat. 131B	Pat. 434B
4	\$12.54	\$18.54	\$17.28	\$23.28	\$21.00	\$27.00	\$21.00	\$21.00
8	14.22	20.22	20.16	26.16	22.68	31.00	22.68	22.68
12	15.90	21.90	23.04	29.04	24.36	35.00	24.36	24.36

Price includes tin box with Patterns 421 and 422.

For measurements see pages 13 to 16. Prices for larger sizes quoted on application.

Iron outlet Box for use with Patterns 421 and 422 extra list \$1.50.

ANNUNCIATORS FOR USE WITH MASTER TELEPHONES

No. of Drops	Pattern 10	Pattern 20	Pattern 30	Pattern 90
4	\$7.48	\$10.23	\$12.10	\$20.35
8	11.44	14.63	16.50	25.30
12	15.80	19.03	20.90	30.25

For larger sizes and measurements see our Bulletin No. 91.

Automatic and electric reset extra list \$2.50.

OUTLYING STATION TELEPHONES

No. of Buttons	Pat. 201B	Pat. 511B	Pat. 401B	Pat. 411B	Pat. 701B	Pat. 130B	Pat. 234B
1	\$7.40	\$7.40	\$8.47	\$8.47	\$11.00	\$17.00	\$12.00

Price includes wood or tin box with Patterns 401 and 411.

For measurements see pages 33 to 35 inclusive.

Iron outlet Box for use with Patterns 401 and 411 extra list \$1.10.

Central Station Outlying Telephones



Pattern 401



Pattern 511



Pattern 411



Pattern 201



Pattern 234



Pattern 701



Pattern 130

Wiring Diagrams Master Telephone Systems

DIAGRAM NO. 657

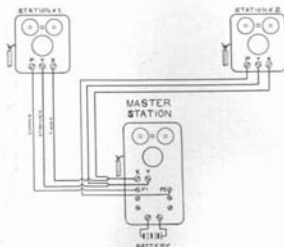


Diagram No. 657. This is the proper diagram for **Master Telephone Systems** where any of the following telephones are used at the central station. Patterns 351, 352, 422, 423, 431, 432 and 134. No. 300 retardation coil mounted in master station.

DIAGRAM NO. 658

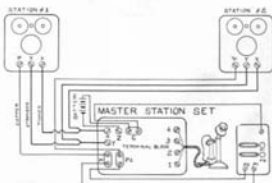


Diagram No. 658. This is the proper diagram for **Master Telephone Systems** where either of the following telephones are used at the central station. Patterns 131 and 434. No. 300 retardation coil mounted in master station.

Wiring Diagrams Master Telephone and Annunciator Systems

DIAGRAM NO. 659

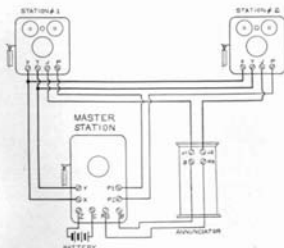


Diagram No. 659. This is the proper diagram for **Master Telephone and Annunciator Systems** where any of the following telephones are used at the central station. Patterns 351, 352, 421, 422, 435, 451, 452 or 134.

DIAGRAM NO. 660

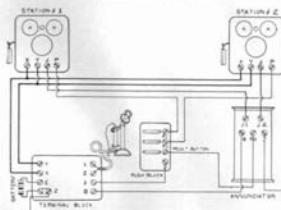


Diagram No. 660. This is the proper diagram for **Master Telephone and Annunciator Systems** where either of the following telephones are used at the central station. Patterns 131 and 434.

ANNUNCIPHONE SWITCHBOARD SYSTEMS

Non-Interfering

SERVICE FOR WHICH DESIGNED. The central station can selectively ring and talk with any outlying station and at the request of an outlying station can connect through to, and ring any other outlying station so that they can converse, supervising such conversation. Any outlying station can ring and talk with central. Several simultaneous conversations can be held at the same time. The central station must do all the ringing for service between outlying stations, must reset the annunciator, and must disconnect the lines when the conversation is ended.

Operation. The annunciaphone is used as the central station. It may call and talk with any outlying station by putting the answering plug into the corresponding jack, pushing the ringing key associated with it, and then operating the listening key lever. It may be called by an outlying station by pushing the button supplied on such telephone. This causes the bell on the annunciaphone to ring as long as the finger is pressed upon the push button, and the needle numbered to correspond with the number of the calling station to turn and continue to indicate that the call has been made until restored by central.



Samson Metallic Circuit Jack and Plug



Single Contact Jack and Plug

To answer such a call the central attendant inserts in the corresponding "jack" a plug, and presses down the listening key lever beside this cord, whereupon conversation can take place. When conversation is ended the listening key lever is restored to its normal position and the plug removed. If the outlying station desires to talk with another outlying station the attendant inserts the plug at the other end of the cord pair in the jack corresponding with the number of the station wanted and pushes down the ringing key associated with this plug.

The central station may supervise such conversation by placing the receiver to the ear and pushing down the listening key lever between these two cords. This also enables the attendant to know when the conversation is ended, so as to disconnect the line. If the Samson full metallic jack is used and supervisory signals (see page 30) are installed these will automatically inform the central attendant when conversation has ended without the necessity of listening in on the line.

Standard Equipment. The various styles of cabinet, later described, are furnished with the same standard equipment including Ross Needle Drop, Samson No. 20 Transmitter mounted on short adjustable arm, Samson watchcase receiver in sizes under 20, and Samson long receiver in sizes from 20 station and up. They are wired in three methods, as follows:

METHOD FF. Equipped with Samson single contact jacks, answering cord, with single conductor plug and ringing key. Cord pairs, when furnished, are equipped with listening keys, but with no supervisory signals. Use wiring diagram No. 2 or No. 5 (page 28).

METHOD GG. Equipped with Samson spring jacks, answering cord with single conductor plug, and ringing key. Cord pairs, when furnished, are equipped with double ringing keys, and listening key, but no supervisory signals. This system is not advised for new installation. It is offered solely for installation to supersede and displace return call annunciator service. Use wiring diagram No. 3 (page 28).

METHOD HH. Equipped with Samson metallic circuit jacks, answering cord with double conductor plug and ringing key. Cord pairs, when furnished, are equipped with double ringing keys, and listening key and double supervisory signals. Use wiring diagram No. 2 or No. 5 (see page 28).

For outlying stations, any of our single point telephones shown on page 23 and described on pages 33 to 35 inclusive, may be used.

AVONIAL STYLE

Pattern 70. This instrument is made of quartered oak with mortised corners and is handsomely finished by hand. Its rounded edges and simple design afford no opportunity for dust to collect. The front cabinet is attached to the heavy backboard by hinges thus allowing easy access to the mechanism. All interior wiring is cabled to terminal strip on backboard. It is a desirable style for the average installation. These cabinets can be furnished from stock in golden oak finish and have mechanical reset unless otherwise specified.

Drops	Measurements Overall	List Price	Mechanical Reset
	Width	Method FF	Method GG & HH
10	12 $\frac{3}{4}$	\$55.00	\$68.75
16	14	70.00	87.50
20	14	80.00	100.00
25	18 $\frac{1}{2}$	92.50	115.63
30	20 $\frac{3}{4}$	105.00	131.25
36	20 $\frac{3}{4}$	120.00	150.00
42	23 $\frac{3}{4}$	135.00	168.75
49	23 $\frac{3}{4}$	152.50	190.63
56	25 $\frac{1}{2}$	170.00	212.50
64	25 $\frac{1}{2}$	190.00	237.50
72	25 $\frac{1}{2}$	210.00	262.50
81	25 $\frac{1}{2}$	232.50	271.25
Samson Cord Pairs	Method FF	List Each	\$ 9.60
"	"	GG	14.40
"	"	HH	14.40

Intervening sizes at next higher list prices.
Larger sizes and electric reset price on application.

BARONIAL STYLE

Pattern 95. This instrument is more elaborate in design and makes a fine appearance in nicely finished interiors. The front cabinet is fastened to the heavy backboard with hinges which allow easy access to the mechanism. All interior wiring is cabled to terminal strip on backboard. They are made up on special order, to any finish. Special lettering will be furnished without extra charge if specified when the order is given. Furnished with mechanical reset unless otherwise specified.

Drops	Measurements Overall	List Price	Mechanical Reset
	Width	Method FF	Methods GG & HH
20	18 $\frac{1}{2}$	\$90.00	\$112.50
28	25 $\frac{1}{2}$	110.00	137.50
40	26 $\frac{1}{2}$	140.00	175.00
50	30 $\frac{1}{2}$	170.00	212.50
66	32 $\frac{1}{2}$	210.00	262.50
88	34 $\frac{1}{2}$	265.00	331.25
Samson Cord Pairs	Method FF	List Each	\$ 9.60
"	"	GG	14.40
"	"	HH	14.40

Intervening sizes at next higher list price.
Larger sizes and electric reset price on application.



Avonial Annunciator
Pattern 70



Baronial Annunciator
Pattern 95



Colonial Annunciphone
Pattern 100

COLONIAL STYLE

Pattern 100

Our Colonial pattern will be found in many of the best appointed hotels in the United States and Canada. It is a handsome instrument hand carved, and is made up only on special order; it can thus be furnished in any wood, finish or lettering. Unless otherwise specified it will be furnished in golden oak with mechanical reset and numbered one and up.

Drops	Measurements Overall	List Price	Mechanical Reset
	Width Height	Method FF	Method GG & HHH
20	19 $\frac{1}{4}$ 31 $\frac{1}{4}$	\$110.00	\$132.50
28	24 $\frac{1}{4}$ 33 $\frac{1}{4}$	130.00	157.50
40	26 $\frac{1}{4}$ 36 $\frac{1}{4}$	160.00	195.00
50	31 $\frac{1}{4}$ 37 $\frac{1}{4}$	190.00	232.50
66	32 $\frac{1}{4}$ 40 $\frac{1}{4}$	230.00	282.50
88	33 $\frac{1}{4}$ 51 $\frac{1}{4}$	285.00	351.25

Samson Cord Pairs	Method FF	List Price	\$9.60
" " " "	GG	" "	14.40
" " " "	HHH	" "	14.40

Intervening sizes at next higher list price.

Larger sizes and electric reset price on application.

Outlying Stations

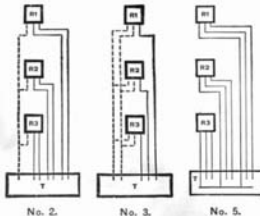
No. of Buttons	Pat. 201C	Pat. 311C	Pat. 401C	Pat. 411C	Pat. 701C	Pat. 130C	Pat. 254C
1	\$7.40	\$7.40	\$8.47	\$8.47	\$11.00	\$17.00	\$12.00

Designate method with which to be used, FF, GG or HHH.

Price includes wood or tin outlet box.

For measurements see pages 33 to 35 inclusive.

Iron Outlet Box for use with Patterns 401 and 411 extra list \$1.10.



Wiring Diagram

Figures "R 1" "R 2" "R 3" represent outlying stations; figure "T" represents terminal board at annunciphone.

System No. 2: one common wire to all stations and two individual wires to each station.

System No. 3: two common wires to all stations and one individual wire to each station.

System No. 5: three individual wires to each station. For use with this system we recommend Samson three conductor cable (see page 62).

"ROKOLL" SWITCHBOARD SYSTEM

Metallic Circuit — Non Interfering

This apparatus is designed to give the most efficient service for central station systems. It is metallic circuit throughout and great care has been taken to have the operation of receiving calls and making connections simple and convenient.

Operation. Lifting the receiver at an outlying station turns the shutter on the switchboard corresponding to the station calling, which shows white, and rings a buzzer also, if the audible signal is set. The audible signal is valuable if the central operator is absent, but is unnecessary otherwise, as the revolution of the shutter signal in addition to its visible indication, gives a distinct "click" sufficiently loud to be clearly heard.

By inserting in the jack underneath the indicating signal either plug of any unused "cord pair" and pushing over the associated "listening cam" talking connection with central is completed, the call signal automatically is reset and the supervisory signal connected with the plug used turns to an indicating position and remains indicating until the station calling replaces its receiver on the hook.

If service to another outlying station is desired the request may be given central and the calling station may or may not hang up: if it does, this is indicated by the supervisory signal returning to normal position. Central completes the call by inserting the plug on the other end of the cord pair in the proper jack and pushing its associated ringing button. When the called station answers the other supervisory signal of that cord pair turns to an indicating position. If the calling station has hung up it may be notified that the connection is complete by pushing the other ringing button connected to the cord pair in use, and when it answers its supervisory signal indicates, showing central the conversation is in progress.



25 Station Rotokoll Switchboard



Samson Plug



Face View Rotokoll Shutter and Jack



Supervisory Signals



Ringing Buttons and Listening Cam



Rotokoll Drop and Shutter, side view



Bank of Jacks and Shutters

With each cord pair are furnished two supervisory signals, two ringing buttons, and one listening cam. One plug of each cord pair is red, one supervisory signal is red, and one ringing button is red; these are all associated so that each red plug has its own supervisory signal and call button, characterized by color; the other plug of each cord pair, the other supervisory signal, and the other ringing button are black and are correspondingly associated. The listening cam operates with either end of the line. Thus the central operator has at all times independent visual supervision of both ends of every connected cord pair, and full information concerning the condition of the service without the necessity of listening to the conversations.

Rotokoll Drop. This drop is extremely simple in construction, the signal is rapidly and unerringly indicated, the shutter is large but the drops collectively occupy so little space that an operator can reach any jack in a 300 drop switchboard without changing position. This mechanism has no part needing periodical replacement or adjustment and it will give accurate service for years with little attention.

Cord Pair Equipment. There may be as many simultaneous conversations as there are cord pairs to connect up the lines, and it is of the utmost importance to know immediately when any conversation is ended so as to release that cord pair for further use. The double supervisory feature of the Rotokoll cord pair equipment is of especial value when the service is heavy, as the operator can see at a glance the condition at every station.

Executives General Call. If desired we can equip the switchboard with a special button which will ring the bells at all outlying stations simultaneously. By use of a code, any executive may be called to the nearest station in this way when he can not be located at his own station.

Cabinets. The Rotokoll Cabinets are furnished in 25, 50 and 100 station capacity, or in larger sizes in multiples of 50. These are wired for full capacity but only a sufficient number of drops and jacks to cover immediate requirements need be installed, and later additions may be made when necessary. These cabinets are furnished separately equipped for mounting by the purchaser or in the styles shown in the illustrations.

Outlying Stations. For outlying stations any of our standard outlying station telephones shown on page 23 and more fully described on pages 33 to 35 may be wired for this service. They will be furnished without call buttons.

Battery Requirements. These systems require a satisfactory source of energy supplying 6 volts to the ringing, and 18 volts to the talking, circuit. Our No. 3 Samson Batteries (see page 60) are designed to stand this hard and continued service, and their use will ensure a perfect installation. Storage batteries may be used if desired.



100 Station Rotokoll Switchboard
Floor Stand Pattern



50 Station Rotokoll Switchboard
Desk Pattern

Rotokoll Switchboard Prices

To obtain price of complete equipment add together the cost of cabinet, the desired number of combined drops and jacks, the desired number of cord pairs, the operator's set, the stand or desk if specified, and any special equipment.

	List Price, each
Cabinet, Golden Oak, fully wired for 25 line capacity	\$70.00
Cabinet, Golden Oak, fully wired for 50 line capacity	100.00
Cabinet, Golden Oak, fully wired for 100 line capacity	150.00
Each drop and jack installed (furnished only in multiples of 5 or 10)	5.00
Each cord pair equipment complete	19.00
Operator's Set	20.00
Floor stand to match cabinet (as illustrated)	40.00
Sanitary Desk, to match cabinet (as illustrated)	100.00

Prices for larger sizes or for special equipment quoted on application.

OUTLYING STATION TELEPHONES

No. of Buttons	Pat. 201D	Pat. 511D	Pat. 401D	Pat. 411D	Pat. 701D	Pat. 130D	Pat. 234D
0	\$7.40	\$7.40	\$8.47	\$8.47	\$11.00	\$17.00	\$12.00

Price includes wood or tin box.

For measurements see pages 33 to 35 inclusive.

Iron outlet box for use with Patterns 401 and 411, extra list, \$1.10.

WIRING DIAGRAM ROKOLL SWITCHBOARD SYSTEM Diagram No. 4000

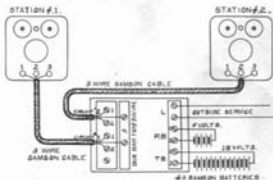


Diagram No. 4000. When installing Rotokoll Switchboard Systems, the use of Samson three conductor Cables (page 62) and in large installations the Samson Rotokoll Junction Box (page 56) will be found advantageous.

SAMSON

Private Line Telephones

Interchangeable for

Two Station Service Multi-Station Service
Single Ringing — Single Talking Multiple Ringing — Common Talking

These telephones are designed for use in small installations of from two to six stations. They may be used without retardation coil where two stations only are desired, and in the larger systems the insertion of one No. 200 retardation coil in each telephone at the terminals provided, makes the proper electrical connection, without change of wiring. They may thus be carried in stock to advantage by the dealer and contractor, and the retardation coil omitted or included as the circumstances require.

Two Station Service. Either station may ring the other by pushing the single button supplied with each instrument and talking connection is made by lifting the receivers, except in the case of pattern 204, where it is necessary to push the talking key in the handle of the Hand Set. There is but the single ringing operation or talking connection.

Multi Station Service. Where more than two stations are installed pushing the call button rings the bell at all of the other stations, and as all are connected to the same talking circuit the call may be answered or the conversation heard at any station. It is necessary, therefore, when calling, to use a code of signals, a pre-determined number of rings being used to designate the party wanted.

Wiring Diagrams. These are shown on pages 36 and 37, for one, two, three, and four line wires. It is desirable to have a centralized battery at a convenient point to serve all stations as shown in diagrams 11, 13, and 14. Where, because of length of line it is not practicable to run more than one or two wires, diagrams 9, 10, or 12 may be used. If diagrams 12, 13, or 14 are used one No. 200 Retardation Coil should be put in each telephone.

DESK OR SURFACE STYLE

Pattern 234.

This is a very handsome, convenient, and satisfactory telephone and is adaptable for both desk and wall mounting. The cabinet is made of maple with ebony finish and is furnished with Samson Permanent adjustment bell and nickel fittings. The Samson all metal hand set with talking key and ringing button in handle is used.

Price below is for ebony finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall.				List price, each
Depth includes hook. Inches.				
Wide	High	Deep		
4 $\frac{1}{2}$	7 $\frac{3}{4}$	3 $\frac{1}{2}$	For two station service	\$12.00
With No. 200 Retardation Coil.			For Multi-station service	12.00



Pattern 234

SURFACE STYLES

Pattern 701



Pattern 701

This telephone is distinctly a high class instrument. It is equipped with our No. 70 solid back, damp-proof, mirror carbon transmitter, long receiver with concealed terminals, self-contained roller bearing hook switch and Samson permanent adjustment bell. The cabinet is of oak, well designed and handsomely finished. The call button is on the side of the cabinet.

Price below is for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall			List price, each
Depth includes mouth piece			
Wide	High	Deep	
5 $\frac{1}{2}$ "	7"	4 $\frac{1}{8}$ "	For two-station service \$11.00
With No. 200 Retardation Coil			For multi-station service 11.00

Pattern 201



Pattern 201

This is similar in style to our pattern 701 except that it is smaller and does not have a long receiver. It is equipped with our Standard Samson No. 20 Transmitter and watch case receiver and permanent adjustment bell. The cabinet is of oak well put together and the push button is placed conspicuously on the front. It has been a popular pattern for many years.

Price below is for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall			List price, each
Depth includes mouthpiece			
Wide	High	Deep	
5 $\frac{1}{2}$ "	6 $\frac{3}{4}$ "	4 $\frac{1}{8}$ "	For two-station service \$7.40
With No. 200 Retardation Coil			For multi-station service 8.30

Pattern 511



Pattern 511

This telephone is a new pattern which has proved extremely desirable. The cabinet is compact and convenient, its lines are graceful and it is well adapted for private line service. It is equipped with our No. 20 Transmitter and watchcase receiver and permanent adjustment bell. All parts are mounted on the front, thus allowing the instrument to set close to the wall and thereby securing substantially the advantages of a flush telephone.

Price below is for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of Backboard Overall			List price, each
Depth includes mouthpiece.			
Wide	High	Deep	
6 $\frac{1}{2}$ "	9"	4 $\frac{1}{8}$ "	For two station service \$7.40
With No. 200 Retardation Coil			For multi-station service 8.30

FLUSH STYLES

Pattern 411

This is a very desirable instrument for many reasons. Being mounted flush with the wall it is inconspicuous and is less likely to meet with mechanical injury through accidental contact. It is very easy and quick to install, and mounted on our wood outlet box (or our iron outlet box when iron conduit construction is used) there is no danger of it becoming loose. It has the same mechanism as our pattern No. 511. It is furnished with or without Samson wood outlet box (page 54); when furnished without, the back of the instrument is enclosed by a tight fitting tin box.

Price below is for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of face		Dimensions of wall opening			List price each including wood or tin outlet box
Overall		Wide	High	Deep	
Wide	High	Wide	High	Deep	
5 1/2"	7 1/2"	3 1/2"	5 3/4"	2 1/4"	For two-station service \$8.47
With No. 200 Retardation Coil For multi-station service					9.37
Samson Iron Outlet Box, extra — Price and dimensions see page 54.					



Pattern 411

Pattern 401

This telephone has a brass front plate and all trimmings are brass. In other respects, it is the same as our pattern 411. It makes a handsome appearance in the home or in the office. It should be mounted on our wood outlet box for concealed wiring; if iron conduit is used, however, use our iron outlet box. (See page 54.)

Price below is for Brush Brass finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Dimensions of face		Dimensions of wall opening			List price each including wood or tin outlet box
Overall		Wide	High	Deep	
Wide	High	Wide	High	Deep	
5 1/2"	7 1/2"	3 1/2"	5 3/4"	2 1/4"	For two-station service \$8.47
With No. 200 Retardation Coil For multi-station service					9.37
Samson Iron Outlet Box, extra. Price and dimensions, see page 54.					



Pattern 401

DESK STYLE

Pattern 130

This is a high grade stand of standard construction and can be dissembled by the removal of one screw. It is equipped with one call button in base, Samson No. 20 Transmitter, and Samson Long Receiver. It is finished in standard black enamel with nickel trimmings.

Price includes 5 feet Green Silk Flexible Cable and Terminal Block with buzzer attached.

	List Price, each
For two-station service	\$17.00
With No. 200 Retardation Coil for multi-station service	17.00



Pattern 130

Two Station Wiring Diagrams

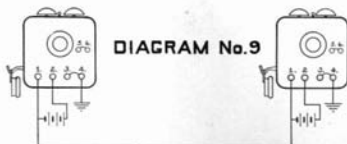


Diagram No. 9. Two Station Private Line Telephone System with one line wire and a ground, with local battery at each telephone.

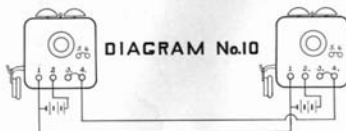


Diagram No. 10. Two Station Private Line Telephone System with two line wires and local battery at each telephone.



Diagram No. 11. Two Station Private Line Telephone System with three line wires and one set of battery centralized.

Multi-Station Wiring Diagrams

DIAGRAM No.12

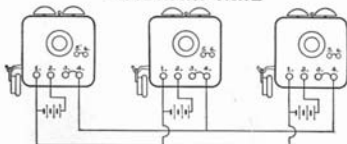


Diagram No. 12. Multi-Station Private Line Telephone System with two line wires. Local battery at each telephone. Retardation coil required in each telephone. Remove wire connecting terminals 5 and 6. Connect retardation coil to these terminals.

DIAGRAM No. 13

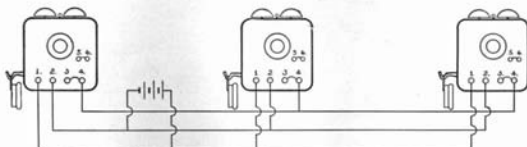


Diagram No. 13. Multi-Station Private Line Telephone. Three line wires. One set of battery, centralized. Retardation Coil required in each telephone. Remove wire connecting terminals 5 and 6, connect retardation coil to these terminals.

DIAGRAM No. 14

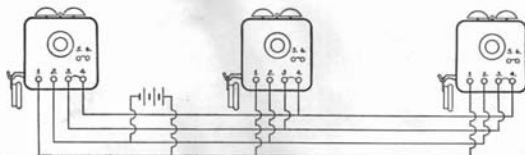


Diagram No. 14. We recommend this wiring where five or more telephones are to be used. Multi-Station Private Line Telephone System. Four line wires. One set of battery centralized. Retardation coil required in each telephone. Remove wire connecting terminals 5 and 6; connect retardation coil to these terminals, also remove wire connecting terminals 3 and 4.

Samson "Pair-Phone"

For Two Station Service
Single Ringing—Single Talking



Pattern 101

The Samson Pair-Phone is the result of years of experience and conscientious endeavor to meet the demand for a substantial, yet simple and easily installed instrument for two-party use at a moderate price. It is a marked improvement on anything heretofore devised.

An examination of this instrument shows many desirable details of construction not before offered upon similarly priced 'phones.

Its outside terminals, at the bottom (where inconspicuous) make installation easy. It is, therefore, unnecessary to expose the mechanism when attaching, and all working parts are thus protected from dust and accidental injury.

Its parts are all mounted upon the front, which may be removed by taking out the four front screws. If, for any reason, it is desirable to examine the mechanism after installing, this may be accomplished without removing it from the wall and thus the danger of defacing the wall or causing the plaster to break away is eliminated.

Its machine screw terminals, permanent adjustment bell, self contained switch hook, guaranteed transmitter and receiver and, in fact, all parts are such as to insure permanent service for years.

The Samson Pair-Phone may be used between

House and Garage
Office and Shipping Room

Up stairs and down stairs
Your house and Neighbors

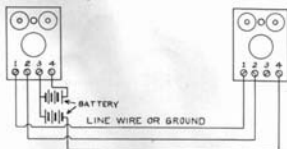
and thousands of similar places.

Price below is for Golden Oak or Black finish. Other finishes charged at an advance in cost; price depending on finish and quantity. Can be used for exposed or concealed wiring.

Dimensions of Backboard Overall
Depth includes Mouthpiece

Wide	High	Deep	Last Price Per Pair
5 $\frac{3}{4}$	8	3 $\frac{1}{4}$	
1 Pair			\$13.00
6 "			12.50
12 "			12.00

Wiring Diagrams for Samson "Pair-Phones"

DIAGRAM No. 21*Using ground return***DIAGRAM No. 22***Using two wires between stations***DIAGRAM No. 23***Using three wires between stations*

These telephones should be connected with battery polarized as shown; consequently if they do not talk clearly upon installing them, the batteries are not properly polarized and the battery wires should be reversed where connected to one of the phones.

Samson Apartment House Equipment



Telephone apparatus for apartment houses is naturally divided into four classes according to its location at the front **vestibule**, the **suites**, the **rear entrance**, or the **janitor's headquarters**. We therefore describe our equipment under these headings.

We furnish instruments arranged for either common talking or non-interfering wiring, but in the great majority of installations common talking service is sufficient, and the expense of selective talking instruments is unnecessary. This will be understood if the following circumstances are considered.

Intercommunication between suites is usually not desirable, and the suite calls only one station—janitor. The service from front or rear vestibule is therefore only one way, and amounts to little more than announcement of a visitor or tradesman. Interference consequently only occurs when a vestibule or janitor are talking with a suite or suites simultaneously.

We show, therefore, several wiring diagrams, (Pages 50, 51, and 52) for common talking service and a single non-interfering diagram for large installations, where this type is sometimes specified, (Page 53). Diagrams to meet special conditions will be furnished upon request.

VESTIBULE EQUIPMENT

Single Unit Pattern

Service. Vestibule to selectively ring each suite and janitor if specified; common talking or non-interfering.

This equipment is newly designed and is shown for the first time with the issuance of this catalogue. The modern tendency in apartment house construction has been to divide the larger buildings into sections so that a very large percentage of vestibules today do not serve more than twenty suites. Consequently we have rearranged this apparatus to meet these conditions, and offer equipment which is strictly up to date, elastic in arrangements, convenient in use and handsome in appearance.

Vestibule Equipment

Single Unit Pattern



No. 0-T



No. 1-T



No. 2-T



No. 3-T



No. 4-T



No. 4-C



No. 5-C



No. 6-C



No. 7-C



No. 8-C



No. 9-C



No. 10-C



No. 2-L



No. 1-L



No. 3-L

Letter Box Units. The face plates are die cut from heavy sheet brass specially finished in our own plating plant, are solidly constructed and are equipped with standard "Yale" locks, triple thick glass with rigid retainers, and spring clips for holding name cards. The right and left boxes are made with a wide side margin for end mounting.

Prices below are for brush brass finish. Other finishes charged at an advance in cost; prices depending on finish and quantity.

	Wide	High	List Price
No. 1 Center Letter Box	4 1/2"	9"	\$4.40
No. 2 Left " "	4 1/2"	9"	4.40
No. 3 Right " "	4 1/2"	9"	4.40

Telephone and Call Units. The face plates are cut from the same heavy sheet brass as the letter box units and are finished to match. They are equipped with our No. 20 Transmitter with metal mouthpiece, one piece "side-slip" card holders with interchangeable number plates, and No. 25 watchcase receiver with reinforced cap and heavy safety chain, or if desired with the Samson all metal rocker arm (see page 45). These units are shown on the previous page and are interchangeable for all Common Talking Systems.

Prices below are for brush brass finish. Other finishes charged at an advance in cost; prices depending on finish and quantity.

	Wide	High	List Price
No. OT Telephone Unit	4 1/2"	9"	\$16.00
No. IT Telephone Unit (with janitor's button)	4 1/2"	9"	16.00
Each additional button on telephone or call unit, extra list			.80

Call units are not separately listed as they are sold only in conjunction with telephones and are included in the above prices.

	Wide	High	List Price
Telephone for three suites, with or without janitor's buttons	4 1/2"	9"	\$23.60
Each additional button, extra list			1.20

These telephones are made only on order and all call buttons are mounted on the telephone unit. They are not made for less than three suites.

Common Talking and Non-Interfering Telephone and Letter Boxes Complete.

Suites No.	Total W	Size H	Cut in Marble W	H	Finished Opening W	H	Common Talking List Price	Non-Interfering List Price
2	14 1/2	9"	13 1/2	8	13 1/2	7	\$26.40	\$31.20
3	18 1/2	9"	17 1/2	8	17 1/2	7	31.60	36.80
*4	27 1/2	9"	26 1/2	8	26 1/2	7	36.80	42.40
5	31 1/2	9"	30 1/2	8	30 1/2	7	42.00	48.00
6	36	9"	35 1/2	8	35 1/2	7	47.20	53.60
7	40 1/2	9"	39 1/2	8	39 1/2	7	52.40	59.20
8	44 1/2	9"	44	8	44	7	57.60	64.80
9	49 1/2	9"	48 1/2	8	48 1/2	7	62.80	70.40
10	53 1/2	9"	52 1/2	8	52 1/2	7	68.00	76.00
11	57 1/2	18"	56 1/2	17	56 1/2	16	73.20	81.60
12	61 1/2	18"	60 1/2	17	60 1/2	16	78.40	87.20
13	66	18"	65 1/2	17	65 1/2	16	83.60	92.80
14	70 1/2	18"	69 1/2	17	69 1/2	16	88.80	98.40
15	74 1/2	18"	73 1/2	17	73 1/2	16	94.00	104.00
16	78 1/2	18"	77 1/2	17	77 1/2	16	99.20	109.60
17	82 1/2	18"	81 1/2	17	81 1/2	16	104.40	115.20
18	86 1/2	18"	85 1/2	17	85 1/2	16	109.60	120.80
19	90 1/2	18"	89 1/2	17	89 1/2	16	114.80	126.40
*20	94 1/2	18"	93 1/2	17	93 1/2	16	120.00	132.00

*J = above dimensions include janitor's button except for non-interfering 20 suite outfit; when janitor's button not specified the sizes are the same except that the 4 suite outfit is 4 1/2" narrower. When telephone installed in single row, or in lower tier of double row the lower edge of cut in marble should be 51 inches, when in upper tier of double row 42 inches, from finished

Vestibule Equipment Multiple Unit Pattern

Three Gang Style



No. 35



No. 35-B



Call Unit



Nos. 300 or 350

Four Gang Style



No. 40



No. 40-B



Call Unit



Nos. 400 or 450

VESTIBULE EQUIPMENT, Multiple Unit Style

This equipment is of pleasing design, is easy to install, and makes a very satisfactory appearance. The face plates are of stamped brass with rounded edges, are of uniform size and have a wide margin on all sides.

Letter Box Units. These are furnished in three and four gang sizes and with or without call buttons. They are reinforced with steel have a large flap opening and a deep recess for mail. They are equipped with snap locks, no two of which can be opened with the same key.

Prices below are for brush brass finish. Other finishes charged at an advance in cost; prices depending on finish and quantity. Units with buttons can not be used with non-interfering systems.

								Wide	High	List Price
No. 33	3	gang letter box without buttons	"	"	"	"	"	7 ¹²	15 ¹²	\$13.20
No. 35b	3	" " " with "	"	"	"	"	"	7 ¹²	15 ¹²	15.60
No. 40	4	" " " without "	"	"	"	"	"	7 ¹²	18 ¹² / ₁₆	17.60
No. 49b	4	" " " with "	"	"	"	"	"	7 ¹²	18 ¹² / ₁₆	20.80

Telephone and Call Units. These are made in appropriate height to match the letter box units with which they are to be used and are furnished for either common talking or non-interfering service.

They are equipped with our No. 20 Transmitter with metal mouth piece, one piece "side-slip" card holders, with interchangeable number plates, and No. 23 watchcase receiver with reinforced cap and heavy safety chain (see page 45). If desired, the Samson all metal rocker arm (page 45) can be furnished with these units.

Our call units are furnished in size to duplicate the telephone units and are used in the following cases: In common talking systems with 3 gang box where more than 22 buttons are required; with 4 gang boxes where more than 32 buttons are required; in non-interfering systems with 3 gang boxes where more than 16 buttons are required; and with 4 gang boxes where more than 28 buttons are required.

Prices below are for brush brass finish. Other finishes charged at an advance in cost; prices depending on finish and quantity.

Common Talking

Common Talking		Wide	High	List Price, Each
No. 300 Telephone Unit with or without janitors button.		7"	15"	\$16.00
No. 400		7 1/2"	18 3/8"	16.00
Each additional button on telephone or call unit, extra list				.80

Non-Interfering

Non-Interfering		Wide	High	List Price, Each
No. 350	Telephone Unit with or without janitors button.	7"	13"	\$20.00
No. 450	" " " " " " " " " "	7"	18 7/8"	20.00

Each additional button, on telephone or call unit, extra list 1.20
Call units are not listed separately as they are sold only in conjunction with telephones.
If required, they are included in above prices.

**Common Talking and Non-Interfering Telephone and Letter Boxes
Complete**

No. of Suites	Total W	Siam H	Cut in Marble		Finished Opening		Common Talking List Price	Non- Interfering List Price
			W	H	W	H		
3	14	15	13 1/4	14	13 1/4	12 1/4	\$31.60	\$36.80
4	14	18 7/8	13 1/4	17 7/8	13 1/4	16 1/4	36.80	42.40
6	21	15	20 3/4	14	20 3/4	12 1/4	47.20	53.60
8	21	18 7/8	20 3/4	17 7/8	20 3/4	16 1/4	57.60	64.80
9	28	15	27 1/4	14	27 1/4	12 1/4	62.80	70.40
12	35	15	34 1/4	14	34 1/4	12 1/4	78.40	87.20
12	28	18 7/8	27 1/4	17 7/8	27 1/4	16 1/4	78.40	87.20
15	42	15	41 1/4	14	41 1/4	12 1/4	94.00	104.00
16	35	18 7/8	34 1/4	17 7/8	34 1/4	16 1/4	99.20	109.60
*18	49	15	48 1/4	14	48 1/4	12 1/4	109.50	120.80
*20	42	18 7/8	41 1/4	17 7/8	41 1/4	16 1/4	120.00	132.00
*21	56	15	55 1/4	14	55 1/4	12 1/4	125.20	137.60
24	49	18 7/8	48 1/4	17 7/8	48 1/4	16 1/4	140.80	154.40

In the non-interfering style for these sizes, a call unit is used and 7 inches should be added to the width here given. When 3 gang units are used the lower edge of marble cut should be 45 inches, when 4 gang units are used 41 inches, from finished floor.

VESTIBULE EQUIPMENT

Samson Rocker Arm

This is designed for use on vestibule telephones and can be furnished with any type of such equipment. Made entirely of metal with the exception of the receiver cap and with all wiring concealed, it is a very substantial and permanent attachment. The transmitter is rigidly mounted on the rocker arm between two heavy cast bearings, and when not in use points downward, thus avoiding much dust and dirt. The receiver, securely fastened to the free end of the moveable arm, when raised to the ear brings the transmitter automatically into talking position, and when lowered the spring bumper prevents contact with the telephone plate.

Furnished to match vestibule equipment. Samson rocker arm equipped with No. 20 transmitter and No. 25 receiver with reinforced cap

\$13.00



Samson Rocker Arm

Samson No. 25 Watchcase Receiver

This is our No. 20 Watchcase Receiver with a patented reinforced cap, the composition being moulded around a metal supporting plate and a fibre ring which protects the edge. A heavy safety chain is fastened to the back of the receiver for attaching to the receiver hook.

Samson No. 25 Watchcase Receiver with safety chain and cord

\$4.00

Samson No. 25 Watchcase Receiver

2.50



No. 25 Watchcase Receiver

Samson Vestibule Card Holders

The novel card holder with interchangeable number plates here illustrated is a new feature to be found on all types of our vestibule equipment, and has many desirable features.

This card holder is made of one piece in any capacity desired and may be removed by loosening the attaching screws, and is reversible. The brass number plates are interchangeable and indestructible, and the cards, being slipped in at the side, are protected from falling dust.

This card holder is covered by a patent application and is not sold separately.



Samson Vestibule Card Holder

Suite Telephones

Service. Equipped with one button. To answer calls from, and operate door opener at, the front vestibule.

Equipped with two buttons. To answer calls from, and operate door opener at, the front vestibule; to call and answer calls from janitor.

Equipped with three buttons. To answer calls from, and operate door opener at, the front and rear vestibules; to call and answer calls from janitor.

Any of our private line telephones shown on pages 33 to 35, inclusive, may be arranged for the above service, and are furnished for either common or selective talking wiring. The most desirable patterns, however, are shown below, and of these we especially recommend the use of pattern 511 for surface mounting, and patterns 411 and 401 for flush mounting.

These instruments have the same standard equipment and the same finish and dimensions respectively as those fully described on pages 33 to 35, inclusive, except that additional button equipment is furnished where required.



Pattern 701



Pattern 511



Pattern 411



Pattern 201



Pattern 401

For Common Talking or Non-Interfering Systems.

Letter E added to pattern number signifies arranged for common talking, letter F for selective talking, suite wiring.

	Pattern 201 E or F	Pattern 311 E or F	Pattern 401 E or F	Pattern 411 E or F	Pattern 701 E or F
1 button	\$7.40	\$7.40	\$8.47	\$8.47	\$11.00
2 "	8.06	8.06	9.13	9.13	11.66
3 "	8.72	8.72	9.79	9.79	12.32

Price includes Samson wood outlet box for use with patterns 401 and 411. Iron outlet box, extra list \$1.10. For dimensions and finishes, see pages 34 and 35.

Rear Vestibule Equipment**"Tradesman Telephones"**

The necessity of a telephone at the rear entrance of an apartment house is more generally appreciated today than formerly. The up-to-date tradesman not only makes several deliveries daily, but usually each morning calls upon his customers to solicit orders. A convenient method of attending the rear entrance from the suite is therefore quite as important as service to the front vestibule.

For Common Talking Systems

Service: Rear entrance to selectively ring and talk on a single talking circuit with each suite, and janitor if specified.

For this service we furnish our Pattern 351 common talking instrument, described on page 13, with bell mechanism omitted. It should be installed as shown in wiring diagram 586, page 51, or 558, page 52. "H" added to Pattern No. means wired for this service.

Prices below are for Golden Oak finish. Other finishes charged at advance in cost; price depending on finish and quantity.

Pattern 351 H	Dimensions of Backboard Overall Depth includes mouthpiece.			Inches List price each
	Wide	High	Deep	
4 button	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{1}{4}$	\$12.54
8 "	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{1}{4}$	14.22
12 "	6 $\frac{3}{4}$	12	5	15.90
16 "	6 $\frac{3}{4}$	13 $\frac{1}{4}$	5	17.58
20 "	6 $\frac{3}{4}$	14 $\frac{1}{2}$	5	19.26
Long Receiver, extra.				2.00

Prices for larger sizes quoted on application.



Pattern 351-H

For Non-Interfering Systems

Service: Rear entrance to selectively ring and talk on individual talking circuits with each suite and janitor if specified.

For this service we furnish our Pattern 800 automatic non-interfering instrument described on page 6 with the bell mechanism omitted. It should be installed as shown in wiring diagram 4701, page 53. "I" added Pattern No. means wired for this service.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.

Pattern 800 H	Dimensions of Backboard Overall Depth includes mouthpiece			Inches List Price each
	Wide	High	Deep	
8 button	6 $\frac{3}{4}$	10 $\frac{3}{4}$	4 $\frac{1}{4}$	\$22.40
12 "	6 $\frac{3}{4}$	12	4 $\frac{1}{4}$	25.60
16 "	6 $\frac{3}{4}$	13 $\frac{1}{4}$	5	28.80
20 "	6 $\frac{3}{4}$	14 $\frac{1}{2}$	5	32.00
24 "	6 $\frac{3}{4}$	15 $\frac{3}{4}$	5	35.20

Prices for larger sizes quoted on application.



Pattern 800-H

Janitor Telephone Equipment

The type of instrument installed at the janitor's headquarters will vary considerably according to the nature of the service desired. In small installations, an answering set may be sufficient. This permits the suite to call the janitor but the janitor cannot ring the suite. If in addition it is desired to have the janitor ring the suites selectively, an intercommunicating type of station is used. Neither of these instruments, however, will leave any record of a call made in the absence of the janitor. For this service, the addition of an annunciator is required. The annunciator and telephone are combined in our janitors' return call instruments and our janitors' annunciaphones. Each type of instrument and the service given is set forth below.

INSTRUMENTS FOR COMMON TALKING SYSTEMS

Janitor's Answering Sets

Service. Equipped with one button. To answer calls from suites and front vestibule; to operate door opener at front vestibule.

For this service we furnish any of the instruments shown on page 46, but we recommend the use of Pattern 511. It is the most satisfactory and least expensive instrument. It should be installed according to wiring diagram 581 page 50. "J" added to pattern number means wired for this service.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.



Pattern 511

Dimensions of Backboard Overall
Depth includes Mouthpiece, Inches.

	Wide	High	Deep	List Price
Pat. 511 J 1 button	6½"	9"	4"	\$7.40

Janitor's Selective Calling Telephones

Service. To answer calls from and to selectively call all suites; to answer calls from and to operate door openers at front or rear vestibules if specified.

For this service we furnish any of our common talking intercommunicating instruments shown on page 19 and described on pages 13 to 16 inclusive, but we recommend the use of pattern 331. Care should be taken in ordering to provide for extra buttons to operate door openers when this service is desired. This instrument should be installed according to wiring diagram No. 582 page 51. "J" added to pattern number means wired for this service.

Prices below are for Golden Oak finish. Other finishes charged at an advance in cost; price depending on finish and quantity.



Pattern 331

Dimensions of Backboard Overall
Depth includes mouthpiece, Inches

	Wide	High	Deep	List Price, each
Pat. 331-J 4 button	6½"	10½"	4½"	\$12.54
8	6½"	10½"	4½"	14.22
12	6½"	12	5	15.90
16	6½"	13½"	5	17.58
20	6½"	14½"	5	19.26
Long Receiver, extra				2.00

Prices for larger sizes quoted on application.

Janitors' Telephone Annunciators

Service: To answer calls from and to selectively call all suites; to answer calls from and to operate door openers at front or rear vestibule, if specified. Individual annunciator drops indicate all calls until reset.

For Common Talking System

Pattern 85. For this service we furnish our Avonial return call annunciator with operator's set. This instrument is provided with an individual drop and push button for each suite. For additional service, allowing front and rear door to call janitor and janitor to operate door openers, extra drops and buttons should be specified. The equipment includes our standard Ross Needle Drop mechanism No. 20 transmitter mounted on short adjustable arm, watchcase receiver in sizes under 20 and Samson long receiver in sizes from 20 suite up. It should be installed according to our wiring diagram No. 588 shown on page 52.

For Non-Interfering Systems

Pattern 70. For this service we furnish our Avonial annunciaphone previously described on page 27. This instrument is provided with an individual drop and jack for each suite. For additional service, allowing front and rear door to call janitor and janitor to operate door openers, extra drops and jacks should be specified. The equipment includes our standard Ross needle drop mechanism, No. 20 transmitter mounted on short adjustable arm, watchcase receiver in sizes under 20 and Samson long receiver in sizes from 20 suite up. Samson single contact jacks, answering cord with single conductor plug, and ringing key. It should be installed according to our wiring diagram No. 4701 page 53.

Drops	Measurements		Mechanical Reset	List Price	
	Wide	High		Pat. 85	Pat. 70
10	12 $\frac{1}{4}$	21 $\frac{1}{2}$	\$ 55.00	\$ 55.00	
16	14	25 $\frac{1}{4}$	70.00	70.00	
20	14	25 $\frac{1}{4}$	80.00	80.00	
25	18 $\frac{1}{2}$	26 $\frac{1}{2}$	92.50	92.50	
30	20 $\frac{1}{4}$	30 $\frac{1}{4}$	105.00	105.00	
36	20 $\frac{1}{4}$	30 $\frac{1}{4}$	120.00	120.00	
42	23 $\frac{3}{4}$	30 $\frac{1}{4}$	135.00	135.00	
49	23 $\frac{3}{4}$	30 $\frac{1}{4}$	152.50	152.50	
56	25 $\frac{1}{2}$	34	170.00	170.00	
64	25 $\frac{1}{2}$	34	190.00	190.00	
72	25 $\frac{1}{2}$	41 $\frac{1}{2}$	210.00	210.00	
81	25 $\frac{1}{2}$	41 $\frac{1}{2}$	232.50	232.50	

Intervening sizes at next higher list price.

Larger sizes and electric reset price on application.

Cabinets are furnished in Golden Oak finish and are provided with mechanical reset unless otherwise specified.

Common Talking or Non-Interfering



Pattern 85
Common Talking



Pattern 70
Non-Interfering

SYSTEM 580 COMMON TALKING

Summary of Service:

This system permits selective ringing from vestibule to suites.

Door opener common to all suites.

Wiring:

3 Common.

1 Direct.

1 pair battery wires to vestibule.

Wire X: Common talking wire to all phones.

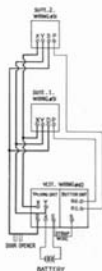
Wire Y: Common talking and ringing wire to all phones.

Wire D: Common from suites to door opener, and direct from vestibule to door opener.

Wire P: Direct wire from each suite to vestibule.

Batteries:

Battery requirements given in detail on page 60.



SYSTEM 581 COMMON TALKING

Summary of Service:

This system permits selective ringing from vestibule to suites, and common ringing from vestibule and suites to janitor.

Door opener common to all suites and janitor.

Wiring:

4 Common.

1 Direct.

1 Pair battery wires to janitor.

1 Pair battery wires to vestibule.

Wire X: Common talking wire to all phones.

Wire Y: Common talking and ringing wire to all phones.

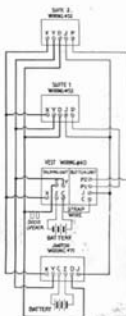
Wire D: Common from suites and janitor to door opener, direct from vestibule to door opener.

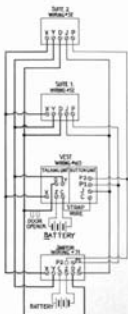
Wire J: Common calling wire from suites and vestibule to janitor.

Wire P: Direct wire from each suite to vestibule.

Batteries:

Battery requirements given in detail on page 60.





Batteries: Battery requirements given in detail on page 60.

SYSTEM 582—COMMON TALKING

Summary of Service:

This system permits selective ringing from vestibule and janitor to suites, and common ringing from vestibule and suites to janitor.

Door opener common from suites and janitor.

Wiring:

4 Common.

1 Direct (branched).

1 Pair battery wires to janitor.

1 Pair battery wires to vestibule.

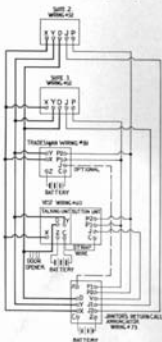
Wire X: Common talking wire to all phones.

Wire Y: Common talking and ringing wire to all phones.

Wire D: Common from suites and janitor to door opener, direct from vestibule to door opener.

Wire J: Common calling wire from suites and vestibule to janitor.

Wire P: Direct wire from each suite branched to vestibule and janitor (for selectively calling suites).



SYSTEM 586—COMMON TALKING

Summary of Service:

This system permits selective ringing from vestibule, tradesman, and janitor to suites, and individual ringing from vestibule, tradesman, and suites to janitor, calls indicating on janitor's Return Call Telephone Annunciator.

Door opener common from suites and janitor.

Wiring:

3 Common.

1 Direct.

1 Direct (branched).

1 Pair battery wires to janitor.

1 Pair battery wires to vestibule.

1 Pair battery wires to tradesman.

Wire X: Common talking wire to all phones.

Wire Y: Common talking and ringing wire to all phones.

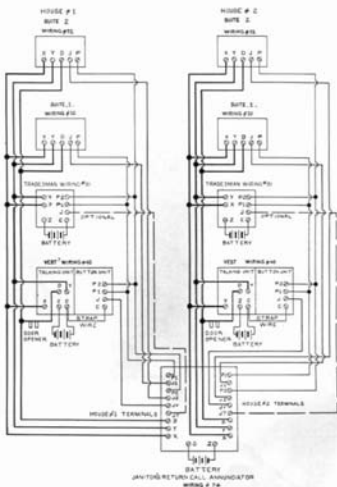
Wire D: Common from suites and janitor to door opener, direct from vestibule to door opener.

Wire J: Direct calling wire from each suite, vestibule, and tradesman to janitor's Return Call Telephone Annunciator.

Wire P: Direct wire from each suite, branched to vestibule, tradesman, and janitor (for selectively calling suites.)

Batteries: Battery requirements given in detail on page 60.

**SYSTEM 588
COMMON TALKING
TWO-SECTION APARTMENT HOUSE WITH ONE JANITOR
SERVICE**



Summary of Service. This system permits selective ringing from vestibules, tradesmen, and janitor to associated suites and individual ringing from vestibules, tradesmen and suites to janitor, (calls indicating on Janitor's Return Call Telephone Annunciator) Door opener common from suites and janitor.

Wiring. (Duplicate for each section).

3 Common.

1 Direct.

1 Direct (branched).

1 pair battery wires to janitor.

1 pair of battery wires to vestibule.

1 pair of battery wires to tradesman.

Wire X, common talking wire to all phones.

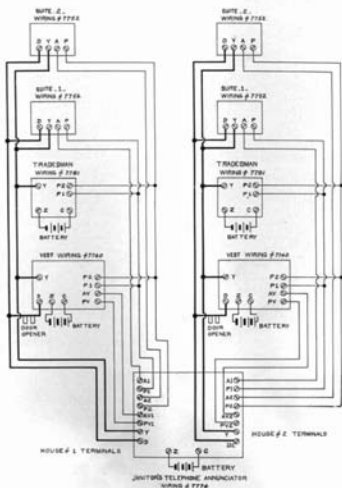
Wire Y, common talking and ringing wire to all phones.

Wire D, common from suites and janitor to door opener, direct from vestibule to common door opener wire.

Wire J, direct calling wire from each suite, vestibule and tradesman to janitor's Return Call Telephone Annunciator.

Wire P, Direct wire from each suite, branched to vestibule, tradesman and janitor (for selectively calling suites).

**SYSTEM 4701
NON-INTERFERING
TWO SECTION APARTMENT HOUSE WITH ONE JANITOR
SERVICE**



Summary of Service: This system permits selective ringing from vestibules, tradesmen, and janitor to associated suites, and individual ringing from vestibules and suites to janitor (calls indicating on Janitor's Telephone Annunciator).

Door opener common from associated suites and janitor.

Wiring. (Duplicate for each section.)

2 Common.

1 Direct.

1 Direct (branched).

1 Pair of battery wires to janitor.

1 Pair of battery wires to vestibule.

1 Pair of battery wires to tradesman.

Wire Y: Common talking and ringing wire.

Wire D: Common from suites and janitor to door opener, direct from vesti-

bule to door opener.

Wire A: Direct wire from each suite to janitor.

Wire P: Direct wire from each suite, branch to tradesman, vestibule, and janitor, (for calling suites).

Batteries.

Battery requirements given in detail on page 60.

Samson Telephone Accessories



Samson Wood Outlet Box

Samson Wood Outlet Box

This fitting is designed for use with our Flush Telephones, patterns 401 and 411 shown on pages 23, 35 and 46. It is fitted with grooves on sides and ends for laths to enter and hold the box firmly in position. The sliding back allows access to the line wires or cable, a great advantage in connecting up and in testing and inspection. It costs little, saves much time in installation and makes a perfect mount for the telephone.

Dimensions Overall in inches			List Price, each
High	Wide	Deep	
7 $\frac{3}{4}$	3 $\frac{1}{4}$	2 $\frac{1}{4}$	\$.30

Box should be placed with lower edge 53 inches from finished floor.



Samson Iron Outlet Box

Samson Iron Outlet Box

This fitting is designed for use with Flush Telephones, patterns 401 and 411, shown on pages 23, 35 and 46. It is designed for use where wiring is done in iron conduit. It is solidly made of cast iron, well japanned to prevent rusting, is provided with "knock out" holes, top and bottom for conduit, and has a wide lug at each corner for fastening to wall studs.

Dimensions Overall not including lugs, in inches			List price, each
High	Wide	Deep	
5 $\frac{1}{4}$	3 $\frac{1}{4}$	2 $\frac{1}{4}$	\$1.10

Box should be placed with lower edge 54 inches from finished floor.



Samson Intercommunicating Iron Outlet Box

Samson Intercommunicating Iron Outlet Box

This fitting must be used with our Flush intercommunicating telephones, patterns 820, 821, 825 and 826 shown on page 7 and can be used to advantage with patterns 421, 422, 451 and 452 shown on pages 14 and 19.

It must be used on all flush intercommunicating telephones where the wiring is done in iron conduit.

It is made of cast iron, well japanned to prevent rust, is provided with "knock out" holes at top and bottom and has extension hinges, a great convenience in connecting up. Lugs at each corner are used to attach to supports.

	Dimensions Overall, not including lugs, in inches			List Price, each
	High	Wide	Deep	
8 buttons	9	4 $\frac{1}{2}$	3 $\frac{1}{2}$	\$1.80
12 "	10 $\frac{1}{4}$	4 $\frac{1}{2}$	3 $\frac{1}{2}$	1.80
16 "	11 $\frac{1}{2}$	4 $\frac{1}{2}$	3 $\frac{1}{4}$	1.80
20 "	12 $\frac{3}{4}$	4 $\frac{1}{2}$	3 $\frac{1}{4}$	1.80
24 "	14	4 $\frac{1}{2}$	3 $\frac{1}{4}$	1.80

Distance from finished floor on different sizes given on application also marked on each box.

No. 20 Samson Transmitter

This transmitter is built with special reference to interior use and will not be unduly affected in transmission by surrounding room noises or building vibrations. It is of the solid back granular carbon type, the carbon chamber being hermetically sealed. A novel dampening spring is used having a central ring portion which surrounds the carbon chamber and rests against the rigid plate which carries the front electrode. Two wings, with their extremities bearing against the under side of the bridge, furnish the necessary tension.

List Price, each **\$2.00**



No. 20 Samson Transmitter

No. 70 Samson Straight Bridge Transmitter

This is a long distance transmitter, built as well as we know how and without reference to initial cost. The front is a heavy casting, well nickel plated, and fitted with a composition mouthpiece.

The carbon chamber is hermetically sealed and contains the best grade of high resistance granular carbon. The case forms no part of the circuit, consequently accidental contact with high-tension outside circuits is avoided.

List Price, each **\$3.50**



No. 70 Samson Transmitter

No. 20 Samson Watchcase Receiver

This receiver is firmly constructed, the magnets and suspending ring being securely moulded into the material forming the case. The coils are wound with silk covered magnet wire, and the poles are carefully ground thereby securing permanent adjustment of the diaphragm.

List Price, each **\$1.50**



No. 20 Samson Watchcase Receiver



Samson Long Receiver

Samson Long Receiver

These receivers are well made, with strong, permanent magnets of standard weight and length. Special steel is used in these magnets, so that the magnetism is very permanent. This receiver is of the "Solid" type in which the composition is solidly moulded around the permanent magnets and no adjustments whatever are necessary at any time.

With 30 inches Worst Cord

List price each \$2.00



Samson Safeguard Junction Box

Samson Safeguard Junction Box

This is one of the most important of the smaller accessories to a telephone installation. The box is the result of intelligent designing and the suggestions and criticism of many of the best contractors throughout the country. Each terminal has connectors for four wires; that is, for one main line and three branch lines, thus giving ample facility for any ordinary problem in wiring. Each wire may be soldered to a terminal hook which is held in place by one screw, and cannot get out of place, or short-circuit with any other connection. It can also be used without soldered connection with perfect safety.

	Wide	High	List Price each
8 stations	5 1/2"	8"	\$2.75
12 "	5 1/2"	9 1/2"	3.30
16 "	5 1/2"	11"	4.40
20 "	5 1/2"	12 1/2"	5.50
24 "	5 1/2"	14"	6.60

Samson Rotokoll Junction Box

This junction box is designed for use on large systems where the stations are on several floors. By their use the cables for each floor may be brought together thereby simplifying the work of testing out circuits either in connecting up or after installation. This junction box may be used with any Rotokoll switchboard system or with our Annunciophone switchboard systems wired method FF or HH.

Prices and sizes to fit any such system quoted on application.



Samson Rotokoll Junction Box

Head Receivers

Our head receiver is made with the Samson Receiver attached to a strong head piece covered with leather. This has been found preferable to the double band which catches in the hair. It is fitted with our regular No. 20 Samson Watchcase receiver.

Including 5 ft. Green Silk Cord and Samson Plug.
List Price \$3.80



Head Receiver

Samson Short Adjustable Arm

The view shows the Short Adjustable Arm attached to Samson No. 20 Transmitter. It gives a range of adjustment of from 25 degrees above to 16 degrees below horizontal. It is very compact, is made of brass heavily nickel plated, and the cord is entirely concealed in all positions of the arm.

Including No. 20 Samson Transmitter . . . List Price \$3.00
Including No. 70 Samson Transmitter . . . List Price \$4.50



Samson Short Adjustable Arm

Induction Coils

Our Telephone Induction Coils are carefully wound on soft Norway Iron cores; all parts are carefully insulated. These coils are mechanically very strong. The heads are of fibre, unusually broad.

20 Ohms resistance, each winding length $2\frac{1}{2}$ in.
List Price \$1.40
Low resistance primary, 50 ohms secondary length $2\frac{1}{2}$ in.
List Price \$1.40



No. 701 Induction Coil

Retardation Coils

These Retardation Coils are made of the best Norway iron and purest copper wire very carefully made, and well insulated.

No. 300 is for use with Common Talking intercommunicating systems.

No. 200 is for the Private Line interchangeable wiring instruments.

No. 300 for Common Talking Intercommunicating System. List Price \$1.10

No. 200 for Private Line Interchangeable System. List Price \$.90



No. 200 Retardation Coil



No. 300 Retardation Coil



No. 20 Switch Hook



No. 21 Switch Hook



No. 70 Switch Hook



No. 20 Mouthpiece



No. 70 Mouthpiece



No. 1 Terminal

Samson Switch-Hook No. 20

We have used this Switch in thousands of our telephones where it has given great satisfaction. No wood screws are used in assembling this Switch-hook, or in fastening it to the case. It is built to last and cannot get out of adjustment.

List Price, each \$1.00

Samson Switch-Hook No. 21

employs the same self-contained contact springs and mounting frame as No. 20, the difference being that it is made for use with a long receiver.

List Price, each \$1.20

Samson Switch-Hook No. 70

The contact springs in this Switch-hook are always under tension, being held apart by hard rubber studs. They make a sure rubbing contact when contact is required, and can be depended on absolutely not to make a false contact.

List Price, each \$1.60

Mouth Pieces

We carry mouth pieces in rubberoid composition. Care must be used in ordering to state the number of the transmitter with which they are to be used, and whether it is an outside or inside thread.

No. 20 Female Thread for No. 30 Transmitter	List Price, each	\$2.20
No. 70 Male " " " 70 " "		.30

No. 1 Terminal

This Terminal will not twist in the wood, and the lugs prevent the wire from slipping from under the screw head. We use this for line connections on all our Private Line telephones.

Including one wood screw and one machine screw, as illustrated.

No. 1 Terminal per dozen.	List price	\$1.00
No. 1 Terminal, per 100.	List price	5.00

The Samson Permanent Adjustment Bell

This important detail has received a great deal of attention, and has been used satisfactorily on all our various types of telephones. The Gongs cannot turn or loosen; the hammer ball is protected by a guard, which cannot be removed except by removing the whole gong mechanism. The magnets are wound to 6 ohms and thus use comparatively little current, increasing the life of the battery. The circuit breaker and contact post is without any adjusting screws, or lock nuts, and requires no adjustment.

Mechanism only. List price \$1.00
With Gongs and Bracket. List Price \$1.25



Samson Bell Movement

Receiver Cords

We supply receiver cords of the same grade as used in our telephones. They are well made, with ample strength and conductivity. Made in green mercerized cotton and have tinsel conductors.

24-inch green mercerized cotton, terminals for watch case receiver. List Price, each . . . \$0.30
36-inch green mercerized cotton, terminals for Samson Long Receiver. List Price, each . . . \$0.40



Receiver Cord

Switchboard Cords

Made in the best approved manner, these cords are strong and of good current carrying capacity. They are specially re-inforced to stand the strain at the plug end.

Applicable to both Annunciaphones and Rotokoll Switchboards.

	List Price	List Price
1½ feet Single Conductor, \$0.75	Two Conductor, \$1.19	
2 feet " " .88	" " 1.32	
2½ feet " " 1.01	" " 1.45	
3 feet " " 1.14	" " 1.58	
4 feet " " 1.28	" " 1.72	
5 feet " " 1.41	" " 1.85	



Switchboard Cord



Showing both terminals of the made-up Cords

Desk Stand Cords

These are the best quality that can be produced. They have twisted silk braided cover (not floss).

Tip terminal one end, loop terminal other end, green silk 5 feet long over all.

2 conductor	List Price, \$0.79
3 " "	" " 1.28
4 " "	" " 1.58
5 " "	" " 1.80

Larger sizes quoted on application.



Silk Desk Stand Cord



No. 3 Samson Battery

Samson Battery

The life and efficiency of every telephone installation depends on the battery used. For more than twenty years the Samson Battery has demonstrated that no other cell can approach its capacity for such service. The battery here shown is the best battery we have ever made for intermittent work.

Samson Batteries do not deteriorate when not in use; their quick recuperation and low internal resistance are unequalled; they are of uniform strength, do not fall off in output when doing hard work, and will meet all telephone requirements, with little attention, for years, in the most exacting service.

They are absolutely reliable, simple to install, rechargeable at small expense, and are universally used by "those who know" on all private telephone installations. Price List on application.

BATTERY REQUIREMENTS FOR SAMSON SYSTEMS

Samson Intercommunicating Systems

Non-Interfering or Common-Talking

6 Cells; all centrally located, as shown. Diagram 354, Page 10; 355 Page 11; 254, Page 17.

Samson Central Station Systems

Master Telephone with or without Annunciator

3 Cells; all located at central station. Diagram 657 and 658, Page 24; 659 and 660, Page 25.

Annunciophone Switchboard Systems

3 Cells Method FF, 9 Cells Method GG, 16 Cells Method HH, all located at central station. Diagram 2, 3, and 5, Page 28.

Rotokoll Switchboard System

16 Cells, all located at Central Station. Diagram 4000, Page 32.

Samson Private Line Systems

Two Station Systems

6 Cells; 3 located at each station, as shown. Diagrams 9 and 10, Page 36; 21 and 22, Page 39.

3 Cells; all centrally located, as shown. Diagram 11, Page 36.

6 Cells; all located at one station, as shown. Diagram 23, Page 39.

Multi-Station Systems

9 or more Cells; 3 located at each station, as shown. Diagram 12, Page 37.

3 Cells; all centrally located, as shown. Diagram 13 and 14, Page 37.

Samson Apartment House Systems

Common-Talking Systems

3 Cells; all located at vestibule. Diagram 580, Page 50.

6 Cells; 3 located at vestibule, 3 at janitor, as shown. Diagram 581, Page 50; 582, Page 51.

9 Cells; 3 located at vestibule, 3 at tradesman, 3 at janitor, as shown. Diagram 586, Page 51.

15 Cells or more; 3 located at each vestibule, 3 at each tradesman, 3 at janitor, as shown. Diagram 588, Page 52.

Non-Interfering

15 Cells or more; 3 located at each vestibule, 3 at each tradesman, 3 at janitor, as shown. Diagram 4701, Page 53.

Samson Telephone Cables

Multi-Conductor, Samson Damp-Proof, Common Return.

Carried in stock in 8, 12, 16, 20, 24 and 28 conductors.

We have sold this cable extensively for over ten years and strongly recommend it for general interior use where it is not likely to be exposed to excessive dampness.

There is an important saving in labor cost in using this cable as compared with running individual wires. All testing of circuits is eliminated as each conductor has its own characteristic, individual color.

The individual wires are No. 18 B and S gauge, the battery wires No. 16, and the Common Return No. 14.

The first covering of each conductor is a cotton braid, (each conductor different in color) and paraffined.

The conductors are laid spirally, being held in place by a winding of paraffined twine; there are then two reverse wrappings of paraffined paper, followed by a heavy cotton braid thoroughly saturated with weather-proof compound and a covering of oak-colored linen braid, dry finish.

These cables are suitable for use in wiring according to diagrams 354, 355 and 254, page 10, 11 and 17.



Samson Damp-proof Intercommunicating Cable Multi-Conductor



Samson Water-proof Intercommunicating Cable Multi-Conductor

Samson Waterproof, Common Return.

Carried in stock in 8, 12, 16, 20, 24 and 28 conductors. This is recommended for use in out door wiring, in iron conduit or where exposed to moisture.

The individual wires are No. 18, B and S gauge, the battery wires, No. 16, and the common return wire No. 14. Each conductor has a $\frac{1}{16}$ inch rubber insulation. The conductors are laid spirally and wound with a double tape, and over all is a heavy cotton braid saturated with weather-proof compound.

Use for wiring diagrams No. 354, 355 and 254, pages 10, 11, and 17.

	Damp-Proof		Water-Proof	
	Outside Diameter	List Price Per Foot	Outside Diameter	List Price Per Foot
8 cond. for 4 button telephone.	7-16	\$.17	7-16	\$.22
12 cond. for 8 button telephone.	1-2	.21	1-2	.28
16 cond. for 12 button telephone.	9-16	.30	9-16	.36
20 cond. for 16 button telephone.	5-8	.36	5-8	.42
24 cond. for 20 button telephone.	11-16	.44	11-16	.51
28 cond. for 24 button telephone.	3-4	.50	3-4	.63

Samson Damp-proof, Three and Four Conductor

(Carried in stock)



Samson Damp-proof Cable 3 Conductor



Samson Damp-proof Cable 4 Conductor

This cable reduces cost of installation of central station systems as it requires no "tapping" of a common return wire; also eliminates testing as the wires are designated by each having an individual characteristic, as follows: In the three conductor one wire shows copper, one is tinned and one stranded copper. In the four conductor cable the indications are the same with the addition of the fourth wire which is distinguished by its size being No. 16, B and S, the other wires being No. 18 B and S.

Each conductor has two reverse windings of cotton, saturated with weather-proof compound, the wires are twisted, then the whole being covered with a heavy cotton braid thoroughly impregnated with weather-proof compound.

These cables must not be installed where they are likely to be exposed to excessive dampness, nor should double pointed tacks or staples be used unless of the insulated type.

These three and four conductor cables will be found very useful and economical for installing our Master Telephone system, Annunciaphone, or Rotokoll switch-boards and apartment house systems; also for Private line systems where three or four line wires are used.

Samson Water-proof, Three and Four Conductor

(Carried in stock)



Samson Water-proof Cable 3 Conductor



Samson Water-proof Cable 4 Conductor

We recommend this for out of doors, for iron conduit work, or where exposed to moisture; each conductor has a 3-32 inch rubber insulation.

After twisting the conductors, they are covered with a tape and then a heavy cotton braid saturated with weather-proof compound. The different conductors are designated as follows: one black rubber, one red rubber, the third with a loose white braid and the fourth (in the four conductor cable) in a loose red braid. All wires are No. 18 B and S. Useful for installing our Master Telephone system, Annunciaphone or Rotokoll switch-boards and apartment house systems; also for private line systems where three or four line wires are used.

	Outside Diameter	Damp-Proof			Outside Diameter	Water-Proof	
		List Price Per Foot				List Price Per Foot	
3 conductor	3-16	\$.05	3 conductor	3-16	\$.10		
4 conductor	1-4	.07	4 conductor	3-8	.14		

These cables come in 500 ft. coils. Shipment can be made quicker on entire coils, although any quantity will be furnished on order.

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14 " " " "	37	659 " " " "	25
21 "Pair Phone" Two Station Wiring	39	660 " " " "	25
22 " " " "	39	4000 Rotokoll Switchboard System	32
23 " " " "	39	4701 Apartment House Wiring, Non-Interfering	53
254 Intercommunicating Wiring Common Talking	17		
354 Intercommunicating Wiring Non-Interfering	19		

Products

Which We Manufacture

Are Described in Bulletins as Listed Below

Samson Fire Alarm Systems	- -	Bulletin No. 11
Samson Batteries	- - -	Bulletin No. 31
Samson Telephones for Private Use	-	Bulletin No. 51
Samson House Goods	- - -	Bulletin No. 71
Samson Annunciators	- - -	Bulletin No. 91
Perlex Waterproof Ignition	- -	Bulletin No. 111

Any of the above bulletins sent on request

Samson Electric Co.

CANTON, MASS.

Manufacturers since 1882

Samson Electric Co.

THIS COMPANY, from 1882 to 1901 was known as the **ELECTRIC GAS LIGHTING COMPANY**. During this period when gas was more commonly employed for illuminating purposes, it developed and introduced the electric lighting gas burners, which came into very general use. It was a pioneer and has always been a leading manufacturer in this line.

With the advent of the telephone, it was among the first to enter this new field and to develop this service for use in residences, hotels, schools, apartment houses, factories, steamships, and to meet the needs generally of private installations. In conjunction with the telephone it developed the *Samson Battery*, which for a generation has been the standard for telephone use. From time to time annunciators and other Electric House Goods were added to the line, and the name of the company no longer represented its chief activity.

In 1901, therefore, when the greatly expanded business was incorporated, a new name was taken—**ELECTRIC GOODS MANUFACTURING COMPANY**—and under this name the business was conducted until 1914. This name, however, proved to be cumbersome, and the trade to a large extent, began to associate the company with the trade mark "**SAMSON**," which it used on its products; consequently in 1914 the present name was adopted. The company in 1916 was incorporated in Massachusetts under the same name.

The **SAMSON ELECTRIC COMPANY** is today not only a leader in the old lines, but is again a pioneer in a new field of interior electric installation—the **Industrial Fire Alarm System**—its manually operated fire alarm box having been the first approved in the states requiring such installations and being the most generally used today.

The **SAMSON PRODUCTS** are the result of thirty-four years of electrical specialization. Long years of service, close attention to the criticism and suggestions of thousands of skilled construction men and exacting users and every modern appliance, combine to make them the best that money can buy. They cannot be classed with instruments that come up in a day.

CANTON, MASS.