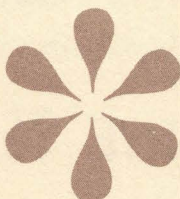
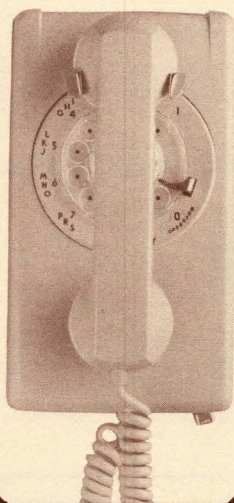
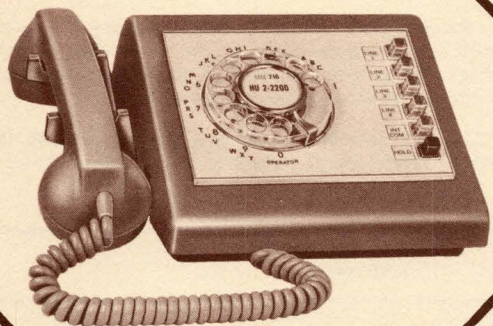


CONDENSED CATALOG
STROMBERG-CARLSON
TELEPHONES



DESK
OR
WALL

SINGLE
OR
MULTI-LINE

RESIDENTIAL
BUSINESS
PROFESSIONAL



S-C 500 SERIES • TELEPHONES

DESK MODEL



WALL MODEL



The S-C 500 Series Telephones and component parts are interchangeable with all standard "500-type telephones."

These phones are available in desk and wall models with dial or, when specified, with dial blank for manual service.

A complete selection of frequency-selective and straight-line ringers is available. They are single-coil ringers with two windings that can be used with automatic station-identification equipment as well as for stations not requiring party identification. Where indicated (*) straight-line tone ringer is available.

The S-C 500 Series Telephones are available in Ivory, Beige, Grey, Turquoise, Blue, Pink, Yellow, Green, Red, Black and White with matching line cords and soft-pull four-conductor handset cords.

S-C 500D*	S-C 554B*	Standard single line, desk or wall. With metro dial.
S-C 500F*	S-C 554F*	Single line, metro dial, lift-to-talk. Only receiver is connected to line when handset is removed from cradle. Lift plunger to connect dial and transmitter.
S-C 500Y*	S-C 554Y*	Single line, metro dial, message waiting lamp.
S-C 501D*	S-C 556B*	Single line, metro dial, gas tube and straight-line ringer for superimposed ringing.
S-C 502B*	S-C 552B*	Single line, metro dial, exclusion switch for private conversation. Permits exclusion of other extension phones on same line by lifting plunger.
S-C 508B*	S-C 551B*	Single line, metro dial, push-to-signal button. Non-locking pushbutton for secretarial signaling, door release, etc.; also for call transfer with PBX systems.
S-C 510B	S-C 553B	Two-line, metro dial. Line selection by twist key which also provides push-to-signal for call transfer or signaling an extension.
S-C 575B	S-C 550B	Two-line with hold, metro dial. Line selection by twist key which also provides push-to-signal for call transfer or door release. Hold on either line while other line is in use by lifting plunger.

1600 SERIES • PETITE® TELEPHONES



Compact telephone for main station or extension use. Dial glows softly when not in use, lights brightly when handset is lifted for easy dialing at night. Available with internally mounted tone ringer (*), or with separate compact ringer box. Colors: White, Beige, Blue, Pink, Turquoise; matching "soft-pull" cords.

1600-W*	Standard PETITE instrument. Conductors: Handset 3, Line 4.
1602-W*	Similar to 1600-W, with Two-Party Identification. Conductors: Handset 4, Line 6.
1603-W*	Provides Message-Waiting service; otherwise same as 1600-W. Conductors: Handset 3, Line 6.
1609-W	Provides Door Answering service through press-to-talk key and intercom accessory; otherwise same as 1602-W. Conductors: Handset 4, Line 8.
1600-2	Two-line PETITE telephone, with hold on one of these lines. Slide key selection. For Door Answering or any other desired service over the alternate line, while keeping the main line open to receive calls. Uses 2-party identification network. Conductors: Handset 4, Line 8.

1700 SERIES • TELEPHONES



Stromberg-Carlson 1700 Series Telephones combine versatility in operation with **way ahead styling**. Line condition is indicated by illuminative keys. Colors: Grey, Green and Beige with four-conductor, matching, soft-pull handset cords.

Three Line Telephone 1700-3A

Self-contained key-switching telephone with option of: 3 outside lines, hold and transfer on each; or 2 outside lines, intercom service, hold and transfer. Recall and signal button. Manual exclusion, common audible signal, line and intercom buzzer available as options. Conductors: handset 4, line 18.

Six Key Telephones 1706

Desk style telephone for up to 5 lines with hold, used with Stromberg-Carlson S-C 1A2 or any other fixed capacity key system. Equipped with six soldered-in keys, dial, manual intercom with buzzer, and line cord; terminal block, line signal and choice of ringer extra. Available with spade or plug ended line cord. Options include dial intercom, executive exclusion. Conductors: handset 4, line 44.



1700-6

Similar to 1706 except furnished with plug-in strip of 6 keys, and comes less line cord. Does not include intercom buzzer or line signal. Uses 25 pr. solid conductor arranged to plug into telephone.

1700-6A

Same as 1700-6 except equipped with line cord, plug ended on telephone to accept plug-in key strip, spade-ended toward line.

1700-6B

Same as above except line cord has plugs at both ends.

Twelve Key Telephones 1700-12

Similar in style, features, and operation to the six key telephones described above, but increases the capacity (up to 11 lines). Equipped with one plug-in strip of 6 keys. Second plug-in strip of 6 keys available. Does not include intercom buzzer or line signal. Furnished less line cord. Uses 50-pair solid-conductor line cord, which plugs into telephone.

1700-12A

Same as 1700-12 except equipped with line cord plug-ended on telephone, spade-ended toward line.

1700-12B

Same as 1700-12 except line cord has plugs at both ends.

1700-12BA

Same as 1700-12B except line plug is wired to permit direct interchange with original 1712 with line plug.

Twelve Key Wall Telephones 1710-12

Same as 1700-12 described above, except for wall mounting. Dial is rotated 180 degrees and a different face mat and handset mounting is used. Handset cord is connected to hookswitch headset assembly which is attached to side of telephone housing. Handset uses 4-conductor cord.

1710-12A

Wall version of the 1700-12A.

1710-12B

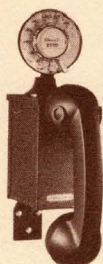
Wall version of the 1700-12B.

1710-12BA

Wall version of the 1700-12BA.



SPECIAL PURPOSE TELEPHONES



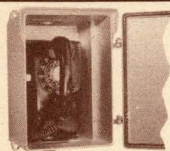
**Efficiency
Suspended
Telephones**

1532	Handset and hookswitch box as extension from main line telephones. Mounts on wall, desk, wherever convenient. Dial can be turned to any angle. For Manual, order 1532-M. All Suspended Telephones use 3-conductor handset cord.
1533	Same as above except furnished with 1000-ohm buzzer for straight-line signaling. For Manual, order 1533-M.
1533-MK	Manual only. Same as 1533 except arranged on flush-mounting wall plate with only hook and handset exposed.
1534	Handset and hookswitch box less coil, capacitor, and buzzer. Arranged for use with a 1560 Desk Set Box.



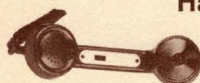
**Magneto
Telephones**

1248	Self-contained Desk Magneto telephone in die-cast housing; sub-base contains ringing generator. Available in 4-party fully selective or eight-party semi-selective. Black only.
1258	Same as above, arranged for wall mounting.



**Weather
Resistant
Telephones**

954D	A 554B Telephone for manual service in a heavy cast aluminum case, with weather-tight door. Ideal for outdoor installations. Two-conductor line cord enters through bottom.
954DD	Same as above, for dial operation.



**Hard-of-Hearing
Handset**

HRA-1000	This handset for hard-of-hearing subscribers contains a receiver amplifier with finger-tip volume adjustment. May be specified when ordering telephones, or ordered separately. Up to 15 db gain supplied from central office line; no external power or volume control box. Fits all Stromberg-Carlson instruments, and many other makes. Colors: White, Beige, Ivory, Black.
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SIGNALING COMPONENTS

GONG RINGERS • A complete selection of frequency-selective and straight-line ringers is available for use in the S-C 500 Series. Telephones of the 1600 Series use the No. 1660 extension box, straight-line or frequency-selective ringers. The 1700 Series uses the No. 88A straight-line or the No. 88J frequency-selective (60 cycle) ringer.

TONE RINGER, No. 95 • Can be mounted in S-C 500, 1600 or 1700 Series telephones (except for a few special service instruments), or available as Extension Box No. 1695.

COMMON AUDIBLE SIGNAL • Provides an audible indication of incoming calls for 1, 2, or 3 lines. Designed for internal mounting in the 1700-3 telephone. Also available as an external Signal Box for use with any 3-line telephone using high-level, straight-line ringing.

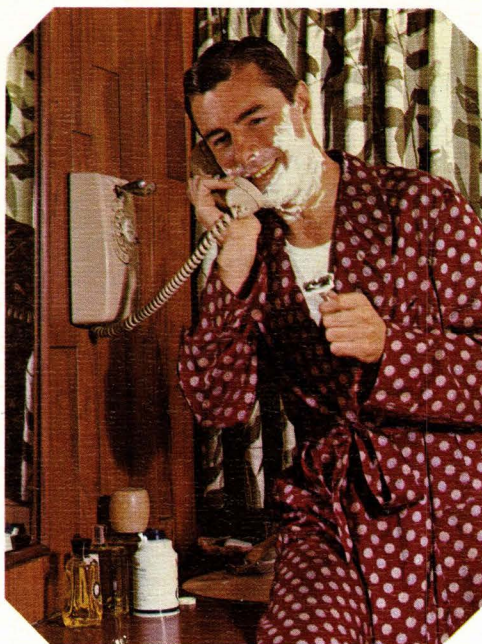
STROMBERG-CARLSON

A Subsidiary of General Dynamics

ROCHESTER, NEW YORK 14603

BRANCH SALES OFFICES:

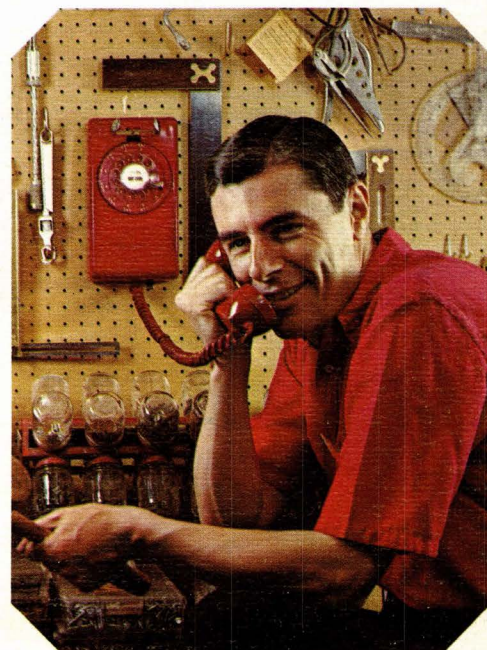
ATLANTA, CHICAGO, KANSAS CITY, ROCHESTER, SAN FRANCISCO



STROMBERG-CARLSON

500+

the telephone
that gives you
the BIG+



Which 500
—uses the finest components?
—give you the most for your money?

The **500+**
from STROMBERG-CARLSON



QUALITY STARTS WITH THE COMPONENTS

AND STROMBERG-CARLSON COMPONENTS

ARE THE FINEST

Your maintenance expenses for station equipment are inseparable from the quality of telephone instruments you place in your plant. And, in the final analysis, the quality of the telephone instrument is the quality of the components and their integration into the telephone system.

At Stromberg-Carlson we give scrupulous attention to components in order to produce the finest telephones. We add so many extras that our S-C 500 Telephones are known as the 500+ and rightfully so.

The pluses, that make the 500+, start with the individual components. The selection of each component is based on exacting design consideration. Every component must operate over a wide range of environmental conditions and through an extremely long service life. Particular emphasis is placed on the ability of

each component to co-ordinate with related components in the telephone set and with your switching equipment. Perfect integration is essential in order to achieve the superior performance Stromberg-Carlson builds into every telephone.

The pluses of the 500+ continue with the meticulous care exercised in manufacturing, the ruthless inspection and quality control of each and every part. Only a telephone that receives this painstaking care is entitled to be called the 500+.

And there are more pluses in the 500+. They include a complete selection of service features, a full selection of ringers including the exclusive Tone Ringer, immediate delivery from strategically located branch warehouse stocks, and a colorful sales promotion program designed to help you sell more extension telephones.

HANDSET

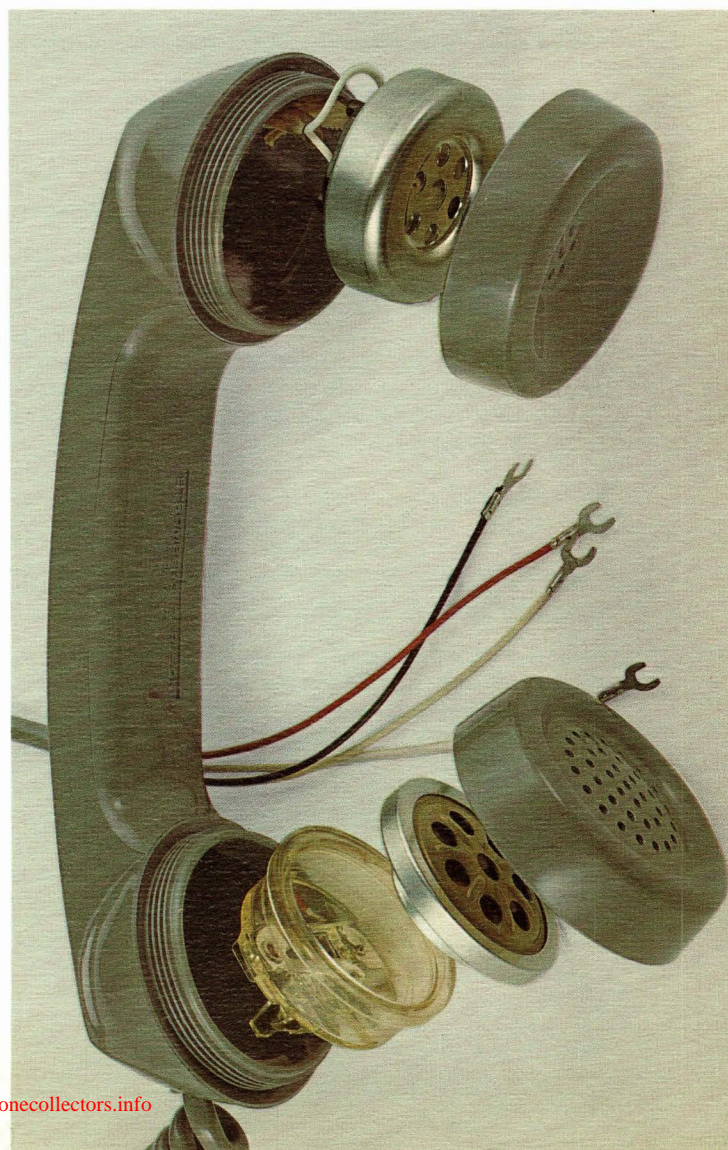
The first + of many

To provide the highest quality transmission and reception, every component of the handset is designed and built to the highest standards of excellence. The superior performance integrates with the other high-quality components that make up the transmission-reception portion of the telephone set. The result is superior performance with higher sensitivity, and of equal importance, with extraordinary ruggedness and reliability.

The receiver capsule uses a ring armature which permits a reduction in the effective mass of the diaphragm. This, together with the acoustic characteristics of the handset handle, results in increased sound output over an extended frequency range. High-fidelity response ensures maximum intelligibility. A varistor, connected across the receiver, reduces clicks and noise to acceptable industry standards. The receiver is designed with inherent attenuation below the useable voice range to minimize the effect of line noise by power line induction.

The transmitter sensitivity increases with frequency, improving speech reproduction in the frequency range that provides increased intelligibility. This characteristic compensates for the increase in attenuation of the higher frequencies which become important on longer lines.

The Stromberg-Carlson transmitter capsule is the finest available, truly nonpositional, not subject to granular packing and other operational difficulties. Every step in its manufacture, from the crusting of the carbon to the final assembly in an air-filtered room, is laboratory controlled. Each transmitter provides clear transmission even under adverse operating conditions.



More reasons why the
Stromberg-Carlson 500
is called the 500+

GONG RINGERS

An exclusive Stromberg-Carlson +:

A two-winding ringer coil is *standard* on both straight-line and frequency ringers. Eliminates the need to install new ringers when upgrading to ANI; can be used for stations not requiring party identification.

Another exclusive +:

More consistent ringer tone regardless of ringer frequency. The tuning mass on the clapper reed is independent of the clapper itself; therefore, the gong strike is consistent and the ringer tone is the same for all gong ringers. A step-type volume control is standard on straight-line ringers and optional on frequency ringers. The subscriber can easily adjust the volume between loud and soft by means of the control, accessible on the underside of the desk phone and by an arm on the lower edge of the wall phone.

A third exclusive +:

Instant identification of the ringer installed in an S-C 500 Telephone can be made without disassembly. Changing the ringer automatically changes the identification code. Save time of stock clerks and installers.

PHONE RINGER

Only Stromberg-Carlson offers this BIG +

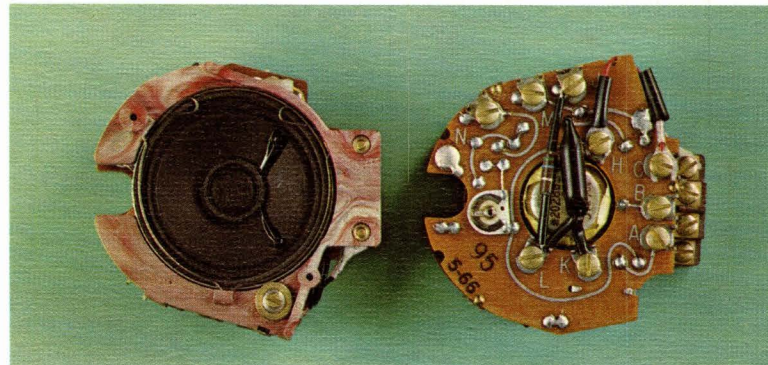
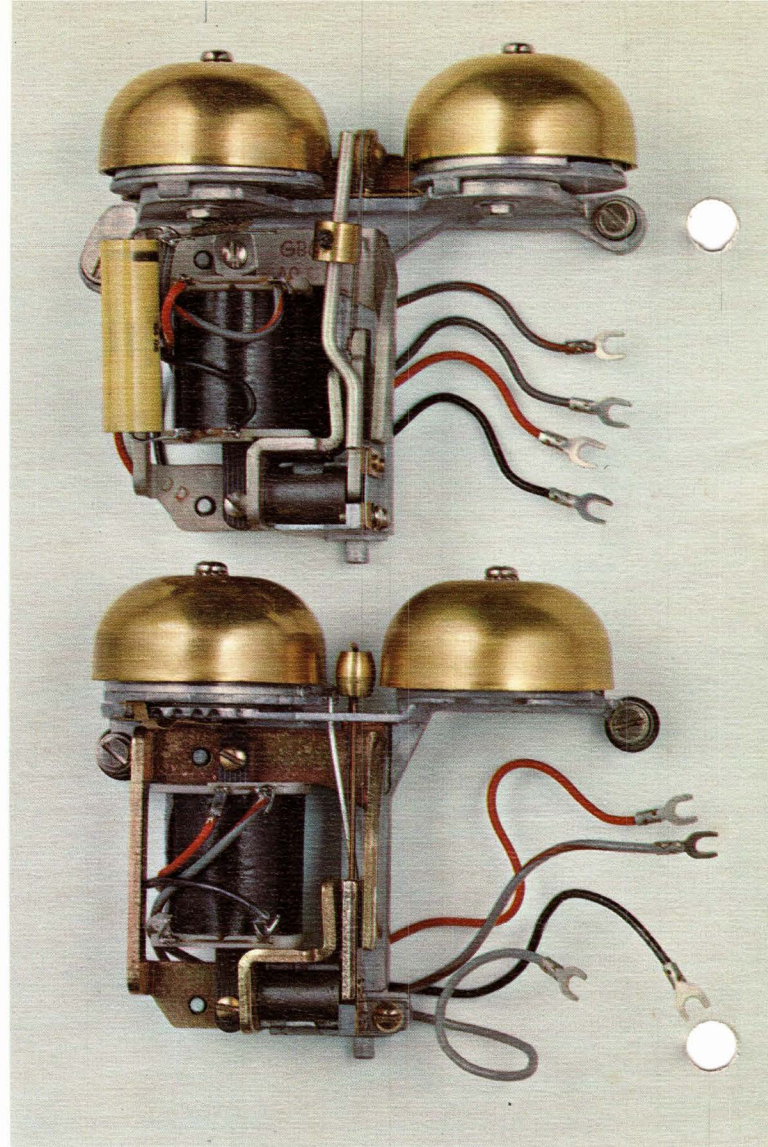
Use the Stromberg-Carlson Tone Ringer for your subscriber who wants a more pleasant signal, clear and penetrating even at low volume, and with full control of volume from a whisper to a shout. Tone Ringers are equipped with a volume control with slotted-head shaft, accessible through a hole in the underside of the telephone. Use the Tone Ringer to step into the future in telephone ringing.

WARRANTY

Another BIG + for you:

Stromberg-Carlson ringers for the 500 Telephone carry the longest term warranty in the industry. This warranty can be made because these ringers are carefully manufactured from the finest materials and subjected to the most rigid tests.

Stromberg-Carlson ringers for the 500 Telephone are warranted for five years against defects in workmanship and material, for one year against electrical defects. Stromberg-Carlson will repair or replace any Stromberg-Carlson ringer for a 500 Telephone that fails this warranty.



Let these
big pluses
work for you

DIAL

The dial has a BIG +:

Perfectly shaped and uniform dial pulses to which your office equipment will respond with the highest degree of accuracy. In order to ensure generation of clean, distinct, symmetrical dial pulses, the dial is designed and manufactured to the closest tolerances, to provide the proper speed as well as make-break ratio.

The spring-driven single-lobe pulsing cam, operating through a precision gear train, provides dial pulses of unerring accuracy and uniformity ensuring dependable switching registration over longer lines.

The governor is connected to the dial mechanism by a clutch which engages only during rundown of the dial. The effect of forcing the dial on rundown is minimized by the governor's drive-bar which increases the breaking effect ensuring correct dial speed at all times.

Careful attention to every step in the manufacture of the dial and constant vigilance in the inspection ensure long life, even under the worst environmental conditions, with a minimum of attention.

Dialing is easy, dependable, and extremely quiet. Clear, tough, plastic finger-wheels are furnished with all dials, and the dial assembly can be used to replace the dial assembly on any standard "500" Telephone.

NETWORK

Even the network has a Stromberg-Carlson +:

Double protection from the effects of moisture and mechanical damage. The various moisture-proof and hermetically sealed components are assembled and wired to the underside of the connecting block which becomes the cover for the network assembly. After assembly, an encapsulation compound is forced through the center hole in the cover to provide additional mechanical support for the components.

The network combines, in a single package, all components necessary to match the telephone set to a two-wire telephone circuit. Included are the induction coil, talking and ringing capacitors, sidetone balance varistor and capacitor, radio interference suppression filter, and transmission balance varistor. All parts are moisture proof; capacitors are epoxy dip coated. In fact, each individual component is carefully selected and inspected for extra long life, and completely compatibility with related circuits in the telephone set and in your switching system.

All internal wiring of the telephone is made to the connecting block. Spade-tip terminals are used on connecting wires and are held in alignment under the terminal screws by molded projections on the cover, to prevent accidental shorts.

The shield can is provided with tapped holes in the feet to permit fastening the network to the telephone baseplate with two screws. There are no rivets to remove or replace.

Every detail that might contribute to over-all efficiency, long life, and trouble free operation are incorporated into the network assembly.

SALES AIDS

Another BIG +:

A colorful sales promotion program to help you sell more extension telephones. It is built around an accordion fold brochure and the nine separate panels. All in full color and each illustrating in a different way the convenience of extension telephones. Several of the 18 photos are used on the cover of this brochure. Your Stromberg-Carlson representative or branch office will gladly provide samples and details. Get this BIG+ working for you.



500+

DESK TELEPHONES

Available for single-line and two-line service with a full selection of special service features listed on the facing page. Distinguished for their functional styling and high-quality voice transmission and reception.

Handset settles unfailingly into the deep handset cradle, virtually eliminating "off-hook" trouble calls and annoyance. Non-skid feet keep telephone from slipping while dialing, reduces chance of wrong numbers, and will not mark furniture surfaces.

Two-line selection is provided by an easy-to-operate twist key. The key also provides a "push-to-signal" feature for signaling an extension or for call transfer when used with a PBX. Hold can be provided on either or both lines. Two-line telephones are used for door-answering service for homes as well as for small-business needs.

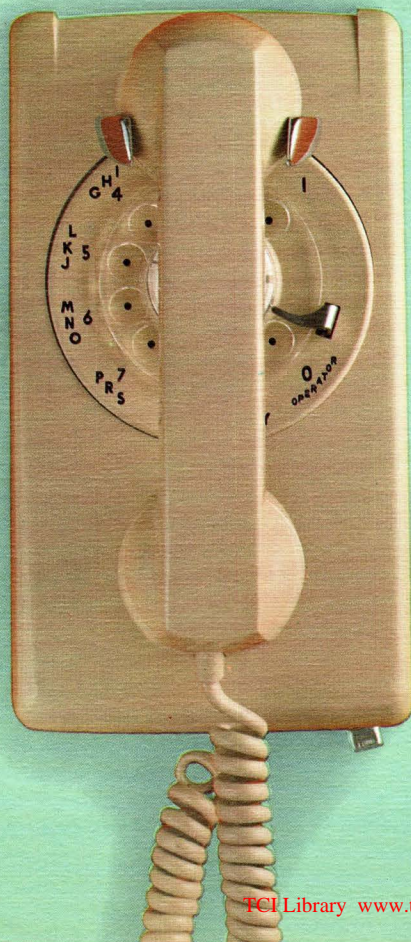
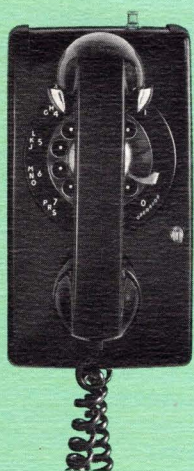


500+

WALL TELEPHONES

Single-line and two-line service is available, with a selection of special service features described on the facing page. Wall mounted telephones take no working space, are useful in business and homes, to keep desks and counters free. Handset can be hung on side of housing—no need to let handset dangle when subscriber has to leave the phone.

Line selection on the two-line wall telephones is made by convenient twist key. The "push-to-signal" feature of the twist key can be used to signal an extension, or for any service requiring closing a circuit to telephone ground. Hold can be provided for either or both lines.



500+

SPECIAL SERVICE FEATURES

Lift-to-Talk (A) - (B)

When lift-to-talk is provided, only the receiver is connected to the line when the handset is removed from the cradle. User can then determine if the line is in use without interference to dialing or talking by another party on this line. When the line is free, lifting the plunger (see illustrations) connects the dial and talk circuits to permit normal operation. Lift-to-talk is available on desk and wall, single-line telephones.

Private Conversation (A) - (B)

Permits temporary exclusion of other extension telephones on the same line, to ensure privacy. (When used on a party line, does not exclude other parties.) Operates by lifting plunger; line is restored to normal when handset is replaced in cradle. Available on single-line desk and wall telephones.

Hold On Line (A) - (B)

Used with two-line desk and wall telephones to permit placing a hold on either line while the other line is being used to make or receive another call. Operates by lifting plunger; if forgotten, hold is removed when handset is replaced in cradle.

Message Waiting (C)

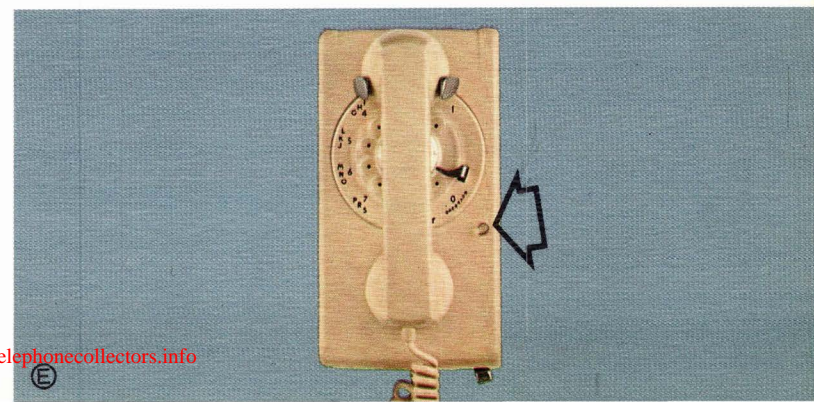
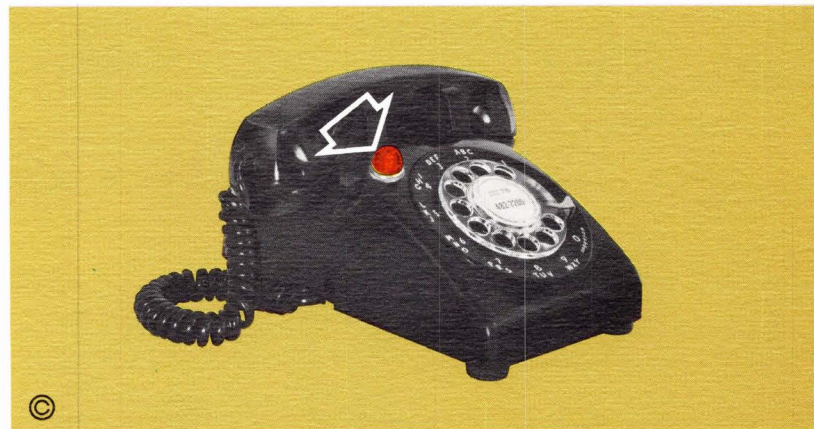
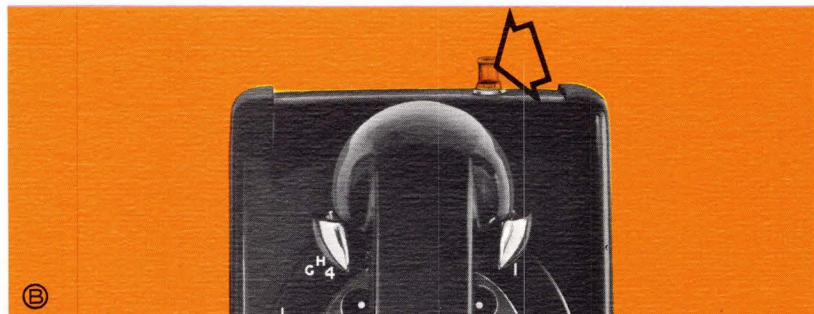
A flashing lamp, on the telephone, alerts hotel-motel guest to a waiting message when the guest returns. Calls for the absent guest are accepted by the desk or PBX attendant who operates a switch at the attendant's location to activate a flashing light in the telephone. Also used in business installations when the nature of the business requires people to be away from their phone and messages are accepted by the PBX attendant.

Pushbutton (D) - (E)

Telephones with a pushbutton are used for various services such as secretarial signaling, door release, etc. A more common use is for call transfer with PBX systems. Available on single-line desk and wall telephones; included as part of line selector switch on two-line phones.

Separate Talk and Ring

Used for installations which require that ring circuit wiring be brought out separately. Four-wire line cord provided for desk telephones; four-wire terminal for wall phones. Also used with 1A2 Key Systems for "A" lead control.



TO ORDER THE EXACT **500+** TELEPHONE

YOU NEED, JUST SPECIFY 1 + 2 + 3 + 4

T-2072 S-C 500 SERIES TELEPHONES

1 type of telephone

DESK	WALL	DESCRIPTION
S-C 500D	S-C 554B	Single line, metro dial.
S-C 500F	S-C 554F	Single line, metro dial, lift-to-talk.
S-C 500Y	S-C 554Y	Single line, metro dial, message waiting.
S-C 501D	S-C 556B	Single line, metro dial, with straight-line ringer and gas tube for superimposed ringing.
S-C 502B	S-C 552B	Single line, metro dial, exclusion switch for private conversation.
S-C 508B	S-C 551B	Single line, metro dial, push-to-signal.
S-C 510B	S-C 553B	Two line, metro dial, push-to-signal.
S-C 575B	S-C 550B	Two line with hold, metro dial, push-to-signal.

2 type of ringer

STRAIGHT-LINE	HARMONIC	SYNCHROMONIC	DECIMONIC
WA—Gong Ringer	* F—33 1/3 cps	* K—30 cps	* I—20 cps
T—Tone Ringer	* G—50 cps	* L—42 cps	* J—60 cps
B—Buzzer (package assembly)	* H—66 2/3 cps	* M—54 cps	* K—30 cps
	* E—16 2/3 cps	* P—66 cps	* Q—40 cps
	* N—25 cps	* R—16 cps	* G—50 cps

* Replace asterisk with N when volume control is not required; with W when volume control is required.

3 color of telephone

Specify the color desired. Beige, Ivory, White, Yellow, Green, Blue, Turquoise, Pink, Red, Gray, Black.

4 special requirements

When manual phone with dial blank is desired, add "MANUAL" to model number. When a special feature such as "separate talk and ring" is required; when a combination of special features is desired; or when your requirement is not listed, add a note to your order specifying the services desired.



Stromberg-Carlson

A SUBSIDIARY OF GENERAL DYNAMICS CORPORATION

TONE-DIALTM

TELEPHONES

are available

NOW from
Stromberg-Carlson



TONE-DIAL Telephones are the only pushbutton dialing telephones that incorporate the BIG + components from the renowned 500 + Telephone—plus the proven, long-life, trouble free, pushbutton oscillator assembly to generate stable, multifrequency tones.

In addition to providing TONE-DIAL Telephones, Stromberg-Carlson engineers, manufactures, and installs Switching System Control equipment that converts your central office to economically handle tone-dialing with the safest minimum investment. The TONE-DIAL system uses multifrequency tones in accordance with industry standards and features maximum reuse of equipment when a more advanced switching system control is needed.

Ask your Stromberg-Carlson representative for complete information on how you can obtain long range, extra revenue from TONE-DIAL and with the safest minimum investment.





DESK



WALL

To order the exact **TONE-DIAL** telephone you need, just specify **① + ② + ③ + ④**

① TYPE OF TELEPHONE

S-C 1500D	S-C 554B (TD)	Single line
S-C 1500F	S-C 554F (TD)	Single line, lift-to-talk. Only receiver is connected to line when handset is removed from cradle. Lift plunger to connect dial and transmitter.
S-C 1500Y	S-C 554Y (TD)	Single line, message waiting lamp.
S-C 1502B	S-C 552B (TD)	Single line, exclusion switch for private conversation. Permits exclusion of other extension phones on same line by lifting plunger.
S-C 1508B	S-C 551B (TD)	Single line, push-to-signal non-locking pushbutton for secretarial signaling, door release, etc.; also for call transfer with PBX systems.
S-C 1510F	S-C 553B (TD)	Two-line. Line selection by twist key which also provides push-to-signal for call transfer or signaling an extension.
S-C 1575	S-C 550B (TD)	Same as S-C 1510B or S-C 553B (TD) plus hold on either line, while other line is in use by lifting plunger.

② TYPE OF RINGER

STRAIGHT-LINE	HARMONIC	SYNCHROMONIC	DECIMONIC
WA—Gong Ringer	*F-33-1/3 cps	*K-30 cps	*1-20 cps
T—Tone Ringer	*G-50 cps	*L-42 cps	*J-60 cps
B—Buzzer (package assembly)	*H-66-2/3 cps	*M-54 cps	*K-30 cps
	*E-16-2/3 cps	*P-66 cps	*Q-40 cps
	*N-25 cps	*R-16 cps	*G-50 cps

*Replace asterisk with N when volume control is not required; with W when volume control is required. Volume control is standard on WA and T Ringers.

③ COLOR OF TELEPHONE

Specify the color desired. Beige, Ivory, White, Yellow, Green, Blue, Turquoise, Pink, Red, Gray, Black.

④ SPECIAL REQUIREMENTS

When a special feature such as "separate talk and ring" is required; when a combination of special features is desired; or when your requirement is not listed, add a note to your order specifying the services desired.

Stromberg-Carlson
A SUBSIDIARY OF GENERAL DYNAMICS CORPORATION

ROCHESTER, NEW YORK 14603

BRANCH SALES OFFICES: ROCHESTER, N.Y. ATLANTA, GA.
KANSAS CITY, MO. CHICAGO, ILL. SAN FRANCISCO, CALIF.

STROMBERG-CARLSON

Special Service Features

S-C 500+

PETITE®

TONE-DIAL™

TELEPHONES



Special Service Features

Lift-to-Talk Allows party-line subscriber to determine, before dialing, if the line is free. When the handset is removed from the cradle, only the receiver is connected to the line; line is restored for normal service by lifting the lift-to-talk plunger. Can be used for reverive calls when calling station is not rung.

Manual Exclusion Ensures privacy of conversation when other extension telephones are connected to the same line. Operates by lifting the manual-exclusion plunger; line is restored to normal by depressing the plunger or by replacing handset in cradle. Exclusion feature will not exclude other parties on a party line.






Hold Used with two-line telephone to permit holding a call on either line while using the other to receive or to place another call. Call is placed on hold by lifting the hold plunger; when returning to held call, hold is released by restoring hold plunger. If forgotten, hold is removed when handset is replaced in cradle.

Message-Waiting Used by hotels and motels and by many businesses. If a called party is out, the attendant takes the message and operates a switch on a message-waiting turret. The lamp on the called party's message-waiting telephone will flash to alert called party of a waiting message when he returns.

Signaling, Call Transfer Used to provide various services such as secretarial signaling, door release, etc. Also used for call transfer with some PABX systems. Available on single line and two line telephones: included as part of the line selector switch on two line telephones.

Hard-of-Hearing Handset Used to provide telephone service for the hard-of-hearing and to provide added receiver volume for telephones located in noisy areas. Handset contains a receiver-amplifier with finger-tip volume control. May be specified when ordering telephone or hard-of-hearing handsets can be ordered separately.

Separate Ring and Talk Used to provide separate ring and talk circuit paths. Four wire line cords are provided for desk telephones; four-wire terminals for wall telephones. Also used with 1A2 Systems for "A" lead control.

S-C 500+		TONE-DIAL		PETITE
				
Desk	Wall	Desk	Wall	Desk
500F	554F	1500F	554F (TD)	not available
502B	552B	1502B	552B (TD)	not available
575B	550B	1575B	550B (TD)	1600-2
500Y	554Y	1500Y	554Y (TD)	1603-W
508B	551B	1508B	551B (TD)	1609-W
HRA500	HRA500	HRA500	HRA500	not available
4-Conductor Line Cord	4-Wire Terminal Board	4-conductor Line Cord	4-Wire Terminal Board	6 or 8 Conductor Line Cord

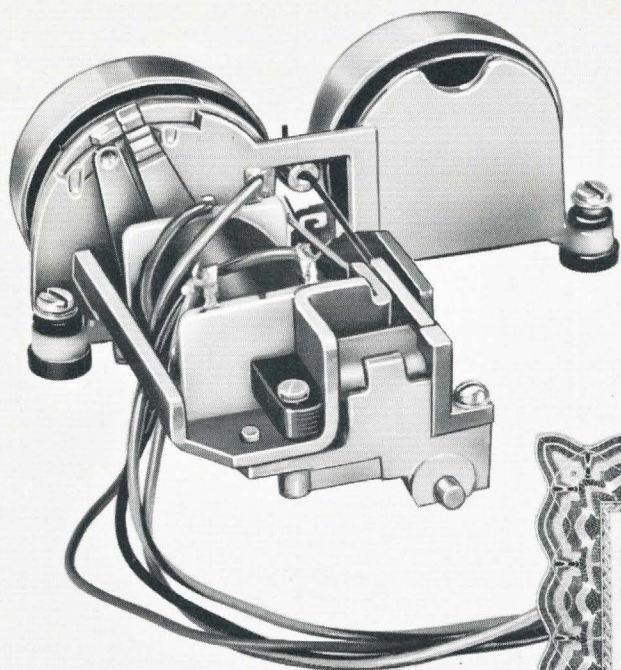
T-6047 SPECIAL SERVICE TELEPHONES

Stromberg-Carlson

A SUBSIDIARY OF GENERAL DYNAMICS CORPORATION

ROCHESTER, NEW YORK 14603

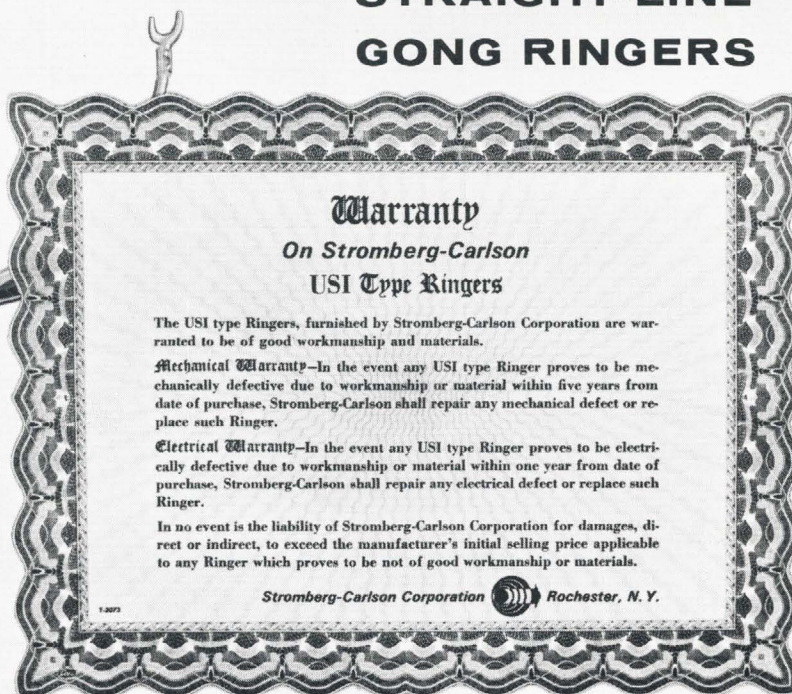
BRANCH SALES OFFICES: ATLANTA, GA. • CHICAGO, ILL.
KANSAS CITY, MO. • ROCHESTER, N. Y. • SAN FRANCISCO, CALIF.



Stromberg- Carlson

USI C4A

**STRAIGHT-LINE
GONG RINGERS**



Stromberg-Carlson USI C4A Ringers are single-coil, straight-line ringers with two windings that can be wired for normal use or for party identification when used with automatic station identification equipment. These ringers can be used in all standard 500-type telephones and will meet the ringing requirements for all major classes of service. They can serve individual telephone lines, party lines on which code ringing is employed, and private branch exchanges. The USI C4A is equipped with an adjustable volume control, enabling the selection of four volume levels. When used with 500-type telephones, the volume control is readily accessible to enable subscribers to select the desired volume level.

STROMBERG-CARLSON
USI C4A RINGER
ELECTRICAL
CHARACTERISTICS
AT VOICE-FREQUENCY
IMPEDANCES

FREQ. cps	TEST VOLTAGE	IMPEDANCE 10 IN PARALLEL	IMPEDANCE SINGLE RINGER
20	90	883 ohms	8,830 ohms
25	90	715 ohms	7,150 ohms
30	90	1,125 ohms	11,250 ohms
400	2	11,000 ohms	110,000 ohms
800	2	22,750 ohms	227,500 ohms
1000	2	32,250 ohms	322,500 ohms

Nominal dc resistances of windings is 1000 and 2650 ohms. Ringer is shipped with capacitor in series with 2650 ohms winding unless otherwise specified.

FOR VERSATILITY

The Stromberg-Carlson USI C4A Ringer, with its two windings, can be used for single-party service as well as for party message-rate service. It can be used in all standard 500-type telephones. In contrast to the frequency-selective ringers, the straight-line ringer is not limited to a narrow range of ringing frequencies, but will ring with full output over a frequency range of 16 to 34 cps. Gas tubes are available for use with superimposed ringing.

FOR SENSITIVITY

Ringer impedance is low at the ringing frequency to provide better ringing sensitivity at reduced ringing power and is high at voice frequencies to reduce attenuation to the talk circuits. A biasing spring provides increased ringer sensitivity to meet limiting conditions such as having the maximum number of extensions or long loops in operation. Lower current requirements means a reduction in interference to adjacent circuits. As a result, more ringers can be used on a given line or a given number of ringers can be operated on longer lines.

FOR DURABILITY

Durability and the USI Type Straight-Line Ringer are synonymous. Its rugged features include a heavy-duty die-cast metal base, lockwashers under all assembly screws subject to vibration, a fixed magnetic circuit, and rubber-insulated mounting screws for three-point shock mounting of the complete assembly.

FOR SATISFACTION

Acoustic resonators within the gongs increase the sound by more than 15 db while emphasizing the low tone. This provides a more effective ring which enables people with impaired hearing to better hear the bell. Maintenance and service personnel will appreciate the ease with which the bias setting can be changed, while the subscriber will appreciate the absence of dial tapping on his extension set. The externally adjustable volume control enables the subscriber to select from four volume levels and if desired, a minor adjustment by the installer can provide the subscriber with an additional step to completely silence the ringer. A pleasant gong tone is made possible by gong resonating chambers and the selection of dissimilar sounding gongs which blend into a distinctive musical chord.

SPECIFY USI C4A STRAIGHT-LINE RINGERS

All ringers are equipped with a volume control.

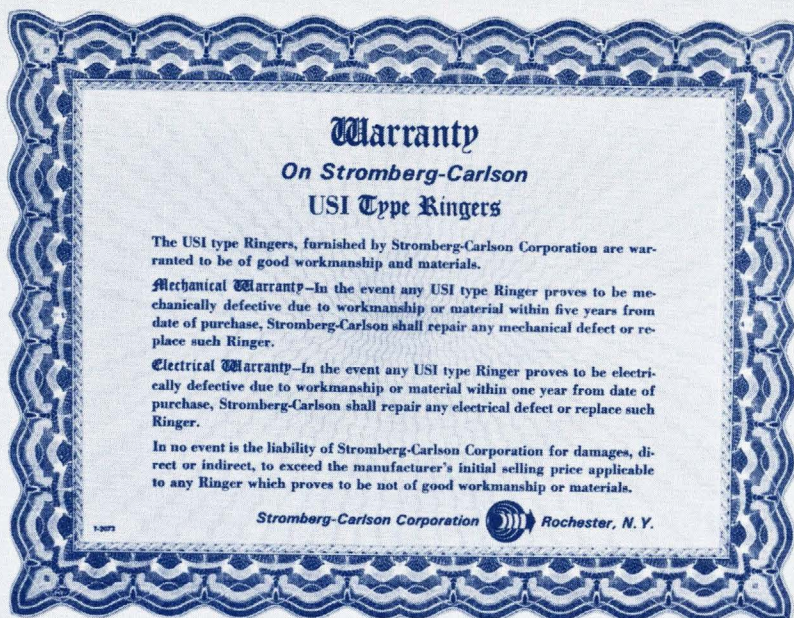
Specify "with 426A tube package assembly 206013-043" when superimposed ringing is to be used. Stromberg-Carlson also offers a complete line of

USI-Type Ringers for extension service and frequency ringing—for more information contact your nearest Stromberg-Carlson representative.

STROMBERG-CARLSON
CORPORATION ROCHESTER, NEW YORK 14603

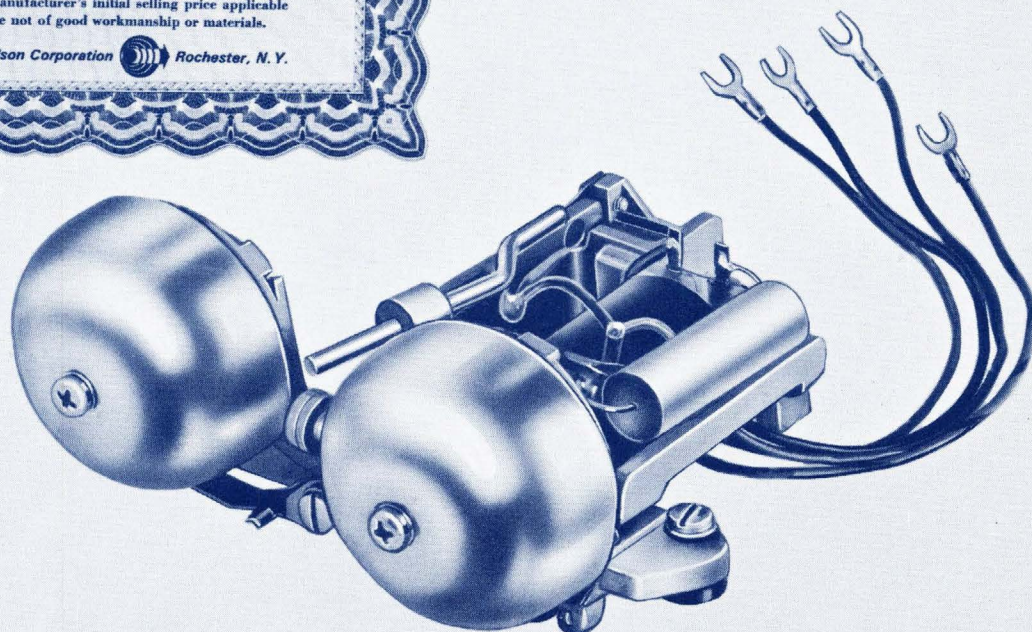
BRANCH SALES OFFICES:

ATLANTA, CHICAGO, KANSAS CITY, ROCHESTER, SAN FRANCISCO



Stromberg-Carlson

USI TYPE FREQUENCY- SELECTIVE GONG RINGERS



Stromberg-Carlson USI Type Gong Ringers are single-coil, frequency-selective ringers with two windings that can be wired for normal use or for party identification when used with automatic station identification equipment. These ringers can be used in all standard 500-type telephones and will meet the ringing requirements for all major classes of service. All ringing frequencies in the harmonic, decimonic, and synchromonic series are available. These frequency-selective ringers are available with or without a volume control. The volume control is adjustable enabling the selection of three volume levels. When used with 500-type telephones, the volume control is readily accessible enabling the subscriber to select the desired volume level.

STROMBERG-CARLSON FREQUENCY-SELECTIVE RINGERS ELECTRICAL CHARACTERISTICS

FREQ. cps	OPERATING-VOLTAGE		CAPACITANCE IN SERIES WITH RINGER COIL (mfd)			IMPEDANCE (ohms)*	
	Minimum	Normal	In Telephone Set	On Ringer	Total	One Ringer**	Ten Ringers***
16	50	105	.47	None	.47	14,300	3566
16 $\frac{2}{3}$	50	105	.47	None	.47	12,830	2490
20	55	105	.47	None	.47	10,200	2736
25	55	115	.47	None	.47	8,150	1570
30	55	115	Shorted	.27	.27	9,850	1854
33 $\frac{1}{3}$	55	125	Shorted	.23	.23	10,550	1974
40	65	125	.47	.23	.15	12,350	2008
42	65	125	.47	.23	.15	11,700	2064
50	65	140	.47	.14	.11	14,150	1725
54	75	140	.47	.11	.09	16,350	2477
60	80	150	.47	.11	.09	16,300	2207
66	80	150	.47	.08	.07	17,050	2747
66 $\frac{2}{3}$	80	150	.47	.08	.07	17,050	3090

Nominal dc resistance of windings is 1000 and 2650 ohms.

Ringer is shipped with capacitor in series with 2650 ohms unless otherwise specified.

*Measurements made at ringing frequency using motor-generator sets for power.

**Impedance given is for one ringer only at its ringing frequency.

***Impedance for 10 ringers bridged across the line (two ringers of each frequency in parallel) using a ringing current of the indicated frequency. At voice frequencies the total impedance of 10 ringers bridged across a line is approximately 10,500 ohms at 400 cps and approximately 20,000 ohms at 1000 cps.

FOR STABILITY

The stability for which these ringers are noted, begins with a heavy-duty, die-cast metal base, and increases with the use of lock-washers under all assembly screws subject to vibration, a rigid mounting of the flexible armature-tapper assembly, a fixed magnetic circuit, a patented mechanical tuning system that is independent of the tapper and gongs, and rubber-insulated mounting screws for three-point shock mounting of the complete assembly. The stability built into each ringer allows precise adjustment to an initial high accuracy level, and a lasting degree of high accuracy that makes costly service trips for ringer adjustment unnecessary.

FOR SENSITIVITY

Ringer impedance is low at the ringing frequency to provide better ringing sensitivity at reduced ringing power, and high at voice frequencies to reduce attenuation to the talk circuits. Lower current requirement of these high-impedance ringers means a reduction in interference to adjacent circuits. As a result, more ringers can be used on a given line or a given number of ringers can be operated on longer lines.

FREQUENCY	SERIES*	WITH VOL. CONTROL	WITHOUT VOL. CONTROL
16	S	USI 10WR	USI 10NR
16 $\frac{2}{3}$	H	USI 10WE	USI 10NE
20	D	USI 10WI	USI 10NI
25	H	USI 10WN	USI 10NN
30	S-D	USI 10WK	USI 10NK
33 $\frac{1}{3}$	H	USI 10WF	USI 10NF
40	D	USI 10WQ	USI 10NQ

Stromberg-Carlson also offers a complete line of USI-Type Ringers for extension service and straight-line ringing—for more information contact your nearest Stromberg-Carlson representative.

FOR SATISFACTION

Acoustic resonators within the gongs increase the sound by more than 15 db while emphasizing the low tone. This provides a more effective ring which enables people with impaired hearing to better hear the bell. The externally adjustable volume control enables the subscriber to select from three volume levels and eliminates service trips for ringer volume adjustment. Whatever the level, the independently acting volume control does not affect the ringers' frequency sensitivity.

FOR VERSATILITY

Stromberg-Carlson USI-Type Frequency-Selective Ringers can be used for single-party and party-line service as well as for party message-rate service. Basic parts of the USI-Type Frequency-Selective Ringers, such as gongs, pole piece, magnet, and frame are interchangeable. All frequencies, in the harmonic, decimonic, and synchmonic series are available.

TO ORDER . . . Stromberg-Carlson Frequency-Selective Ringers are available as shown below. Select frequency required and designate the "USI number" for ringer with or without volume control.

FREQUENCY	SERIES*	WITH VOL. CONTROL	WITHOUT VOL. CONTROL
42	S	USI 10WL	USI 10NL
50	D-H	USI 10WG	USI 10NG
54	S	USI 10WM	USI 10NM
60	D	USI 10WJ	USI 10NJ
66	S	USI 10WP	USI 10NP
66 $\frac{2}{3}$	H	USI 10WH	USI 10NH

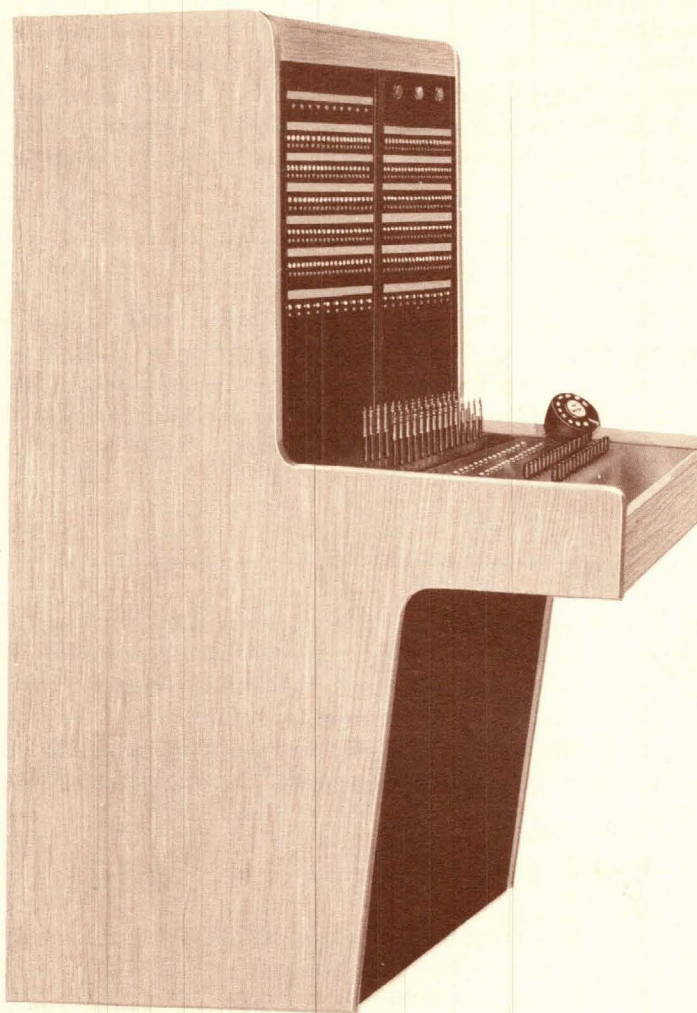
*Series: H-Harmonic; S-Synchmonic; D-Decimonic

STROMBERG-CARLSON
CORPORATION ROCHESTER, NEW YORK 14603

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STROMBERG-CARLSON

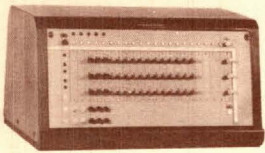
Manual PBX Switchboards



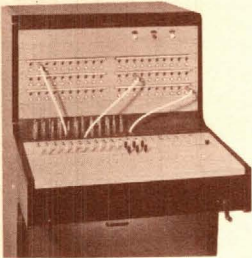
**when
personal
service
is important**

Many business organizations find it desirable to have a switchboard attendant answer all incoming calls—particularly when the number of incoming calls is high in relation to outgoing and internal calls—or perhaps for that personal touch that may be necessary for certain operations.

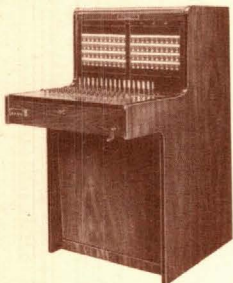
All models—from the 12-line No. 121 Cordless Switchboard shown on the reverse side to the 300-line No. 116 PBX Switchboard shown above—are designed for dependable and efficient operation and all are styled to complement the furnishings of the modern office.



No. 121 CORDLESS • Compact, key-operated desk turret in two-tone walnut cabinet. Sun-tan face panel with contrasting color keys make it easy to identify circuits. The No. 121 is available from stock; wired for 16 and equipped for 12 lines; and wired for 5 and equipped with 3 trunks. Standard desk telephones for attendant. Dimensions: 27" long, 14" high, and 15" deep.



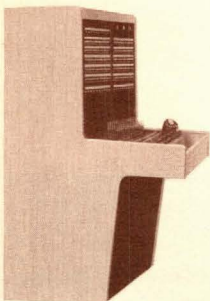
No. 120 FJ and FP • Distinctive two-tone styling in a floor type cord switchboard of medium capacity. Both models offer four options for supervision and both use W.E. type operator's headset. The No. 120 FJ is available from stock; wired for 80 and equipped for 20 lines; and wired for 15 and equipped with 3 jack-ended trunks. The No. 120 FP is available on order; wired for 80 lines and 10 plug-ended trunks; and equipped as required. Dimensions: 3'10" high, 2'1" wide, and 2'8" deep.



No. 127F and 128F • These switchboards offer the same circuit and operational features as the No. 120, with greater line (100) capacity. The No. 127F is available on order; wired for 100 lines and 10 plug-ended trunks; and equipped as required. The No. 128F is available from stock; wired for 100 and equipped with 40 lines; and wired for 15 and equipped with 5 jack-ended trunks. Dimensions: 3'10" high, 2'1" wide, and 2'11" deep.



No. 131 SWITCHBOARD • Efficient handling of heavy traffic. The capacity (100 lines, 12 trunks) can be doubled by tying two boards together. Has individual IDF so that trunk circuits may be arranged wherever most convenient in the 20-space jack field. Available in dark walnut, limed oak, or natural finish. Non-glare face panels are standard. The No. 131 is available from stock; wired for 100 lines and 12 jack-ended trunks; and equipped as required. Dimensions: 3'10" high, 2'1" wide, 2'11" deep.



No. 116 SWITCHBOARD • Large capacity (up to 300 lines) in a modern cabinet. The No. 116 is available on order; wired and equipped as required; jack-ended or plug-ended trunks as specified. Dimensions: 4'3" high, 25" wide and 35" deep. The No. 116 replaces the No. 106 Switchboard. No. 106 Switchboards are still available on special order for additions to existing 106 PBX installations.

Expert assistance from trained field engineers is always available to help you make the right choice for each subscriber. Contact your STROMBERG-CARLSON Representative.



STROMBERG-CARLSON
CORPORATION

ROCHESTER, NEW YORK 14603

BRANCH SALES OFFICES:

ATLANTA, CHICAGO, KANSAS CITY, ROCHESTER, SAN FRANCISCO

DATE 3/1/67

REPLACES 8/1/66

S-C 500 TYPE TELEPHONES (BLACK OR COLOR) LESS RINGER

<u>Desk Type</u> <u>Code</u>	<u>Wall Type</u> <u>Code</u>	<u>Description</u>	<u>List Price</u> <u>F.O.B. Origin</u>
S-C 500D	S-C 554B	Standard	15.80
S-C 500F	S-C 554F	Lift to Talk	20.65
S-C 500Y	S-C 554Y	Message Waiting	22.40
S-C 501D	S-C 556B	E/W 426 Tube for Superimposed Ringing	18.90
S-C 502B	S-C 552B	Exclusion	24.90
S-C 508B	S-C 551B	Push Button	23.50
S-C 510B	S-C 553B	Two Line W/Signal Key	25.15
S-C 575B	S-C 550B	Two Line W/Signal Key and Hold	26.90

S-C 500 P B X TELEPHONE (BLACK, BEIGE, & GRAY)

<u>Desk Type</u> <u>Code</u>	<u>Description</u>	
S-C 544P	Operators P B X Set	14.00
Telephone Less Dial		Deduct 4.00

TONE DIAL tmTONE DIAL TELEPHONE (BLACK OR COLOR) LESS RINGER

<u>Desk Type</u> <u>Code</u>	<u>Wall Type</u> <u>Code</u>	<u>Description</u>	
S-C 1500D	S-C 554TD	Standard	34.40
S-C 1500F		Lift to Talk	39.25
S-C 1500Y		Message Waiting	41.00
S-C 1502B		Exclusion	43.50
S-C 1508B		Push Button	42.10
S-C 1510F		Two Line W/Signal Key	43.75
S-C 1575B		Two Line W/Signal Key and Hold	45.60

RINGERS

USI-C4A	Straight - Line Ringer	4.10
USI-10N	Frequency Ringer Less Volume Control	4.60
USI-10W	Frequency Ringer With Volume Control	4.85
#95	Tone Ringer (204791-161 Pkg. Assem. Required for Mounting)	8.85

DATE 3/1/67

REPLACES 8/1/66

17 SERIES KEY TYPE (GREEN, BLACK, BEIGE, GRAY)

<u>Code</u>	<u>Description</u>	<u>List Price</u> <u>F.O.B. Origin</u>
1701-3A	With Dial and With Spade Terminals	\$ 64.80
1701-3B	With Dial and With Plug	66.80
*1706-A	With Dial and Spade Terminals	64.80
*1706-B	With Dial and With Plug	68.80
1701-6	With Dial Less Line Cord	65.00
1701-6A	With Dial and Line Cord With Spade Terminals	78.00
1701-6B	With Dial and Line Cord With Plug	82.00
1701-12	With Dial Less Line Cord	71.50
1701-12A	With Dial and Line Cord With Spade Terminals	95.80
1701-12B	With Dial and Line Cord With Plugs	107.80
1711-12	With Dial Less Line Cord	71.50
1711-12A	With Dial and Line Cord With Spade Terminals	95.80
1711-12B	With Dial and Line Cord With Plugs	107.80
*1701-12BA	With Dial and Line Cord With Plugs	107.80
*1711-12BA	With Dial and Line Cord With Plugs	107.80

*Wired for 6 k 1 Systems - Replaces 1706, 1712, 1752 Telephones

PLUG-IN LINE CORD FOR 17 SERIES TELEPHONES

25 Pair-Spade Ended	(Specify Color)	\$ 14.00
25 Pair-Plug Ended	(Specify Color)	18.00
45 Pair-Spade Ended	(Specify Color)	29.00
45 Pair-Plug Ended	(Specify Color)	36.50

398-A Plug-In Key Assembly (Second Position) (206011-011) 29.30

Specify 204792-301 Face Plate and Mat Pkg. (Desk) 1700-12
or 204792-491 Face Plate and Mat Pkg. (Wall) 1710-12

Furnished No Charge with 398-A Key

DATE 3/1/67

REPLACES 8/1/66

1600 SERIES "PETITE" TELEPHONES

<u>Code</u>	<u>Description</u>	<u>List Price</u> <u>F.O.B. Origin</u>
1600-W	E/W Dial - Less Ringer	\$19.25
1602-W	E/W Dial - Less Ringer	21.75
1603-W	E/W Dial - Less Ringer	22.25
1609-W	E/W Dial - Less Ringer	26.25
1600-2	E/W Dial - Less Ringer	28.25
1600-WT	E/W Dial and Tone Ringer	27.25
1602-WT	E/W Dial and Tone Ringer	29.75
1603-WT	E/W Dial and Tone Ringer	30.25

PETITE RINGER BOXES

1695	With Tone Ringer	10.60
1662	Two-Party Ident.	8.75
A-886	SC-USI W/St. Line Ringer or Frequency Ringer	6.00

EXTENSION RINGER BOXES

SC - 687	Equipped W/Capacitor Less Ringer	3.00
SC - 687 WA	Straight Line	7.10
SC - 687 W	Frequency Ringer With Volume Control	7.85
SC - 687 T	Tone Ringer	11.85
SC - 687 B	2 B-Buzzer	9.50
SC - 687 (96)	Three-Line Common Audible Signal	17.00
1561	Black Less Ringer	3.85
1561	Black With Ringer	7.40
1561	Gray Less Ringer	4.35
1561	Gray With Ringer	7.90
1561 C	Gray With 2A Buzzer	7.90
96	Common Audible Signal	17.00
A-915	Multi-Frequency Electronic Relay	34.50

1500 SERIES SUSPENDED TYPE (BLACK ONLY)

*1532	210957-000	29.25
1532 M	210958-000	25.90
*1533	210959-000	34.80
1533 M	210960-000	30.15
*1534	210961-000	22.80
1534 M	210962-000	20.00

* Add \$6.15 for Dial

DATE 3/1/67

REPLACES 8/1/66

OUTDOOR TELEPHONES

<u>Code</u>	<u>Description</u>	<u>List Price</u> <u>F.O.B. Origin</u>
890-I	802017-000	\$145.00
890-L	802018-000	145.00
954-D	205038-409	94.60
954-DD	205038-509	101.35

MAGNETO TELEPHONES

1248-WI	201804-000	62.00
1248-WIP	201806-000	63.50
1248-WL	201805-000	62.00
1248-WLP	201807-000	63.50
1258-WI	201808-000	60.00
1258-WIP	201810-000	61.50
1258-WL	201809-000	60.00
1258-WLP	201811-000	61.60