

# COMMUNICATIONS SERVICE GUIDE

CSG  
100.001  
Issue 1

## PUSHBUTTON TELEPHONE SYSTEMS



PUSHBUTTON ADAPTER  
FOR STANDARD PHONES

### THE MARKET

The pushbutton telephone systems are designed for the small and medium size businesses and for departments within larger organizations which may require up to a maximum of 5 lines including intercom.

Within this large segment of business customers the most promising prospects for these systems are:

Customers with requirements for two or more lines at various locations within a business.

Customers who require any telephone location to answer or place calls on any available lines.

Customers who need to hold and transfer calls from any telephone to any other telephone of the system.

Customers who require a limited intercommunications capacity to facilitate internal operations and transferring of calls.

Customers who may require up to a maximum of 12 telephone locations to handle present and foreseeable future requirements.

Customers having a combination of two or more different types of lines on the same telephone.

Application of these systems are highly successful to those businesses which have combinations of the above requirements and where switchboard service is not desired. In addition they are used where flexibility and ease of access to lines is desirable and where there is no requirement for restricting outgoing calls.

Pushbutton systems are used as complete communications systems for the smaller businesses. Within large business organizations they are frequently used for complete departmental systems, as well as for individual requirements.

Some examples of application in broad business categories are:

Professional Offices  
Wholesale Trade  
Transportation Services  
Government Offices

Service Business  
Retail Trade  
Utility Companies  
Schools-Institutions

AUTOMATIC ELECTRIC COMPANY

## DESCRIPTION

The modern six button telephones (Type 86) and/or the six button adapter units (Type 86A), used with any standard telephone, provide a complete and efficient telephone system for placing and receiving inside and outside calls when two or more lines are required.

The handsome six button telephones are only slightly larger than the regular desk telephone and provide visual signals through illumination of the pushbuttons. Approximate size is 5½ inches by 10-3/8 inches.

Pushbutton adapter units provide pushbutton features and flexibility on any other standard or special telephones used to meet specific requirements. These compact units incorporate six pushbuttons with separate visual indicators into a small desk or wall mounted component about 6 inches square and 1½ inches high.

In addition to the telephones one or more cabinets for control equipment are required and are usually wall mounted in a storage area.

To provide for fast and simple operation each telephone location has six pushbuttons, the first of which is normally designated "hold". The remaining pushbuttons provide for any combination of lines such as outside city lines, switchboard station lines, private lines and intercommunication lines usually with the last button designated as "intercom".

Associated with each line is a light to provide an indication of incoming calls and lines in use. Easy to read identification strips designate functions of each of each pushbutton.

The telephones and adapter units are available in colors to harmonize with most business furnishings and surroundings.

## FEATURES AND BENEFITS

### Hold button —

Provides holding on any outside line. A hold may be set, released or reset from any pushbutton telephone. Calling party cannot hear other conversations. Allows user to receive information from other parties using the same telephone. Insures against lost calls, saves time and money and insures privacy.

### Any combination of five lines —

Pushbutton selection of inside and outside lines on the same telephone. Eliminates additional telephones -- saves space. Provides flexibility as to lines for economical communications service.

### Lights associated with pushbuttons —

Identifies status of lines, whether incoming or busy. Allows for one bell or buzzer for all incoming calls. Eliminates picking up busy line -- avoids irritation. Saves time by indicating calling line. No need for separately toned bells.

## OPTIONAL FEATURES AND BENEFITS

### Dial or pushbutton intercom —

Provides low usage intercom system with pushbutton or dial signaling of stations. Speeds up requests for information and expedites transferring of calls. Saves steps and lost motion on internal operations. Does not tie up outside telephone facilities -- fewer busy signals.

### Wink hold —

Lights in connection with lines give the appearance of winking to indicate to all locations a line is being held. Lessens irritation to outside party due to long delays. Eliminates possibility of overlooking or forgetting calls.

### Exclusion of extension stations —

Built-in, automatic or manual exclusion features provide privacy on important calls. Protects confidential information.

### Automatic tie line —

Pushbutton selection of tie line automatically provides communications between separate systems. Allows fast and efficient communications between remote locations. Eliminates the necessity of dialing other systems -- saves time and improves service.



## HERE'S HOW IT OPERATES



### To Answer Calls —

Incoming calls are indicated at all locations by flashing of light associated with the ringing line. In addition a bell, buzzer, chime or other signal may be used to indicate an incoming call. To answer the call the button associated with the line is pressed and the handset lifted. The pulsing light then changes to a steady light to signal all locations the line is in use.

### To Place Calls —

Press button of any line not in use (unlighted button) and lift receiver. A steady light will immediately indicate to all locations the line is in use.

### To Hold Calls —

To hold an outside call press hold button. This system enables you to hold up to five outside lines at one time. To remove a hold press button of line being held. A hold may be set, released or reset from any location of the system.

### To Transfer Calls —

To transfer a call, press the hold button, signal to the person desired through the use of intercom line or other method and tell person to answer by pressing the proper button.

### To Exclude Extensions —

Built-in exclusion is provided on one line using a six button telephone with chrome and red pushbuttons located near the receiver cradle. Exclusion is accomplished by pressing the chrome button. To release exclusion press red button. Exclusion is also released when the receiver is replaced. Other manual and automatic exclusion arrangements can also be provided.

## LIMITATIONS

Generally not over 12 pushbutton telephones can be satisfactorily incorporated into a pushbutton telephone system.

Extreme distances between telephone locations may require special consideration to make certain system will perform satisfactorily.

Each telephone location is connected to the control equipment with a plastic covered cable approximately  $\frac{1}{2}$  to  $\frac{3}{4}$  inch in diameter.

The cable is often visible and terminates in a small terminal box affixed to the desk, counter or wall at each telephone location.

Heavy intercommunicating and centralized control of calls are usually indicators other systems should be considered.

Consideration must also be given to future growth thus insuring against costly change of systems.

## CUSTOMER MUST SUPPLY

110 volt AC electrical outlet must be provided by the customer in the immediate vicinity of the control equipment cabinet.

Space required for control equipment cabinet pictured is approximately 26 inches wide, 18 inches high and 10 inches deep. Power supply requires a small additional wall area adjacent to control equipment.



CONTROL EQUIPMENT



POWER SUPPLY

Conduit provided by the customer is desirable for concealed wiring and is usually recommended for new buildings.

## SATISFIED USERS

(To be filled in locally as examples of successful applications)

Customer

Specific Application

## REFERENCE PUBLICATIONS

Available from Automatic Electric Company

### Technical

- TB 210-492 – 10-A1 Key Systems
- TB 470-917 – Type 86 Telephone
- TB 470-923 – Type 86-A Key Adapter

### Sales Aids

- C-1950 – Pushbutton Telephone Systems

### Catalog Information

- Catalog 11000 – Section K/63
- Catalog 11000 – Section M/63

### Local Publications:

## RATES

Pushbutton system rates consist of various items of equipment. These items can usually be categorized into three basic groups which are lines, telephone features, and control equipment.

Most profitable installations are those which have approximately three or more lines and five or more pushbutton telephones.

Systems are sometimes described as uniform systems such as 2 x 3 systems with dial intercom. This would refer to a two line, three telephone system with all stations having a dial intercom station.

Specific rates are as follows:

<u>Item</u>	<u>Monthly Rate</u>	<u>Installation Charge</u>	<u>Move Charge</u>
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## SALES STRATEGY:

These systems should be actively promoted for installations where the immediate and future requirements will range from two to five lines.

Requirements should take into consideration that the average installation life should be at least two or three years.

Sales of systems are to be handled on an Initiated and Demand basis primarily by Sales Department personnel. It is contemplated that simple additions, deletions and changes will be handled primarily by the Business Service Representatives.

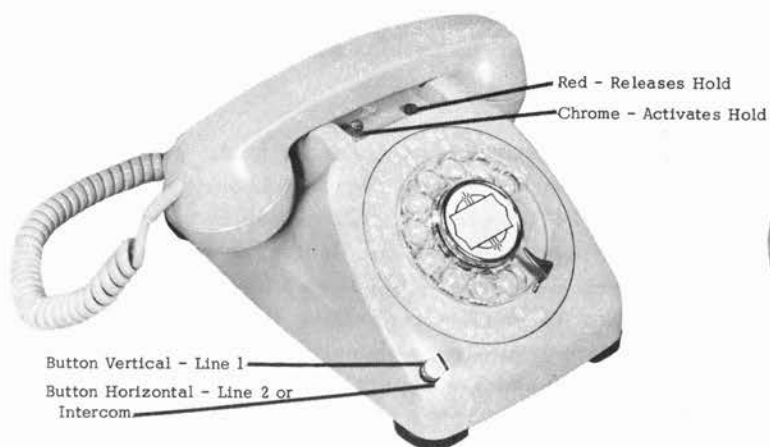
## NOTES:



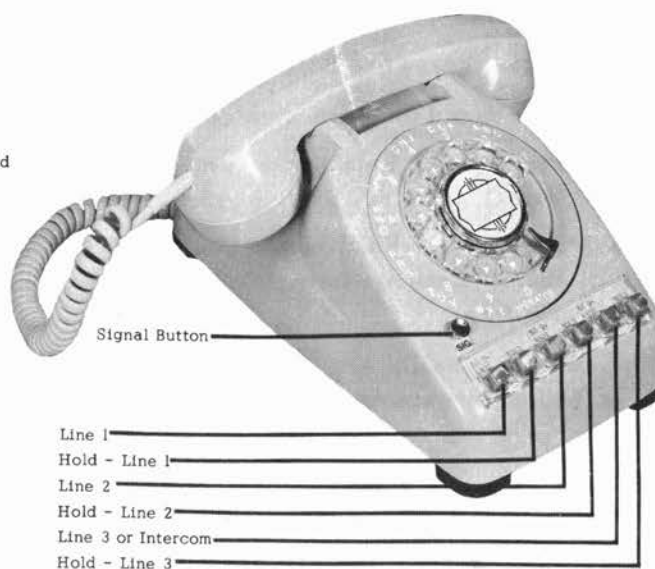
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## CONVENIENCE SYSTEMS



Type 85D Instrument



Type 87A Instrument

### DESCRIPTION

The Convenience Systems, using Type 85D and 87A telephones, provide complete, modern and flexible communications services to a wide variety of business customers. They are intended primarily for small businesses and departments or functions within larger businesses which have limited line and inter-communication requirements.

The services available to our customers through the Convenience Systems will be provided by two instruments, both available in the standard business colors of Black, Beige, White, Turquoise and Grey:

The Type 85D was created by the addition of a holding bridge to the Type 85C instrument. This set has a push and turn key on the lower left side of the instrument, with small chrome and red buttons near the switchhook.

The Type 87A instrument has 6 pushbuttons along the base of the set, 3 line and 3 hold buttons. In addition, there is a small chrome button marked "SIG" on the left side, above the pushbuttons. This instrument looks somewhat like the Type 86 pushbutton set. However, the Type 87A instrument is equipped with a hold button to the right of each line button, whereas one hold button serves all 5 line buttons on the Type 86 set.

The following additional equipment is used to provide manual or dial intercom services:

- Transistorized Power Supply for Manual Intercom
- Key Telephone Unit for Dial Intercom
- Power Supply for Dial Intercom

Five Convenience Systems are available:

Systems using type 85D telephones

- 1 Pick up and Hold one line and pick up one line, no Hold.
- 2 Pick up and Hold one line and one Manual Intercom line, 5 stations maximum.

Systems using type 87A telephones

- 3 Pick up and Hold, two or three lines.
- 4 Pick up and Hold one or two lines and one Manual Intercom line, 5 stations maximum.
- 5 Pick up and Hold, one or two lines and one Dial Selective Intercom Line, 9 stations maximum.

Signaling, manually activated is available with all of the first four systems.

## LIMITATIONS

These systems, having been designed to serve the smaller customers or limited line requirement, within larger organizations, have definite limitations:

There are defined limits to the number of stations per system. If Manual Intercom is provided it is 5; if Dial Intercom is provided it is 9.

The various system arrangements also have definite capacities. Systems #1 and 2 can provide two lines or one line and intercom. Systems #3, 4 and 5 provide three lines or two lines and intercom.

A line may not be held at one location and released by another. The transferring party, therefore, must be certain that the desired party has taken the call before hanging up. Should the handset be set aside awaiting for called party to take the call, care must be exercised that the handset is replaced so as to avoid disabling the line for further use.

On systems with dial intercom, customers should be made aware of the noise associated with the selector unit. Care must be exercised to locate this equipment in a remote area.

## HOW IT OPERATES

Systems #1 and #2 – Type 85D Telephones:

To Answer Calls –

Determine from separate bell or buzzer signals, which line is ringing. Turn the two-position key to that line and lift the handset.

To Place Calls –

Turn the Key to the line position you desire, pick up the handset, listen to insure the line is clear and place your call.

Intercom Calls –

May be made on System #2. Turn the line key to the intercom position (usually horizontal) lift the handset, listen to insure the line is clear and signal the desired location by pushing the turn key.

Hold and Transfer –

Only the vertical Line 1 can be held. Depressing the chrome button near the switchhook places this line on hold. The hold feature may be released by either depressing the red button or replacing the handset. Calls may be transferred from one telephone location to another by holding the line and using the intercom circuit as above.

Systems #3, 4 and 5 – Type 87A Telephones:

To Answer Calls –

With an incoming call the line which is ringing will be indicated by the flashing light in the line button. To answer the call, depress that button and lift the handset. An optional feature is called Busy Visual. This provides a winking light in all telephones to indicate a busy line.

To Place Calls –

The desired line button is depressed. If the line is not in use the call can be placed.

Intercom Calls –

Intercom Calls may be made on System #4 and #5. To make an internal call, depress the intercom button, lift the handset and listen to determine if the line is busy, then signal the desired location. Signaling is accomplished by either manually depressing the chrome signal button or dialing the digit assigned to the location.

Hold and Transfer –

To hold an incoming call, depress the hold button associated with that line. The hold function is released by either depressing the line button again or replacing the handset. Calls may be transferred by holding the line and by use of the intercom circuit asking the desired person to take the call.

## FEATURES AND BENEFITS

<u>Features</u>		<u>Benefits</u>
Two Phones in One	—	Saves Space, More Convenient
Hold Feature	—	Handles Calls Faster, Avoids Losing Calls, Facilitates Transferring Calls
Common Audible and Visual Ringing Signal	—	Identifies Incoming Calls, Lessens Interruptions
Busy Visual	—	Tells user which lines are in use, avoids confusion
Capacity of up to Three Lines	—	Fewer Instruments Required, Greater Customer Convenience, and Provides for Additional Business
Modern Styling and Choice of Colors	—	Blends with Modern Office Decor, Lends Prestige to the Customer's Business
Manual Intercom	—	Saves Steps and Time, Reduces Office Confusion and Noise
Dial Intercom	—	Saves Steps and Time, Increases Flexibility, Eliminates Signals Ringing at all Locations, Eliminates Coded Signaling and Provides Added Selectivity
Capacity of from 5 to 9 Stations, depending upon Type of System	—	Allows for Future Expansion

## THE MARKET

The Convenience Systems are designed to meet the communications requirements of small businesses and departments or functions within medium and larger businesses which have a requirement for a maximum of up to three lines including intercom. These instruments and services should fill the gap between the one-line user and the customers who require the sophistication and wide range of features provided by 10A1, PBX or PABX systems.

Within the framework of the large number of customers with a limited line requirement but a desire for some of the advanced features, the most promising customers for Convenience Systems are:

- Customers with requirements for up to three lines at various locations within the business.
- Customers who require any telephone location to answer or place calls on any available line.
- Customers who need to hold and transfer calls from any telephone to any other telephone on the system.
- Customers who require a limited intercom capacity.
- Customers who may require up to 5 or 6 telephone

locations to handle present and foreseeable future requirements.

- Customers who do not now have system services or whose system services are very limited.
- Customers who do not have the desire or requirement for sophisticated PBX, PABX or Pushbutton system services.

The Convenience Systems should receive wide applications in the businesses whose requirements are listed above. In addition, the systems can be used within an organization served by a larger system to meet the specialized requirements of a department or work area. One common application is the boss-secretary combination.

Many types of businesses are prime candidates for Convenience Systems. Some examples would be:

Small Insurance Offices	Real Estate Offices
Doctors' Offices	Attorneys' Offices
Dentists' Offices	Selected Beauty Parlors

These examples should not be thought of as restrictive.

Good usage prospecting can discover applications for the systems in almost every type of business.



## CUSTOMER MUST SUPPLY

Conduit provided by the customers is desirable to conceal the wiring and is usually always recommended for new buildings.

Space must be available for the control equipment when intercom is provided. This space requirement may range from one foot square to approximately two feet square, depending upon what common equipment and apparatus cabinets are used.

With both types of Intercom, 110 volt AC electrical current must be provided by the customer in the immediate vicinity of the control equipment.

## REFERENCE PUBLICATIONS

Available from Automatic Electric Company

### Technical —

- TB 470-921 — Type 87A
- TB 470-914 — Type 85D
- C-1019 — Transistorized Power Supply

### Sales Aids

- C-1043 — Convenience Telephone Systems

### Catalog Information

- Catalog 11000 — Section K/63
- Catalog 11000 — Section M/63

### Local Publications:

## RATES

For ease of understanding by the customer it is recommended that Convenience System rates be quoted on a per instrument basis, for all of the services to be provided.

The specific rates are:

<u>Item</u>	<u>Monthly</u>	<u>Installation Charge</u>	<u>Move Charge</u>
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Other

## SALES STRATEGY

To be sold as new or additional services and not as replacements for existing customer systems. They will be sold by both Business Service Representatives and Salesmen as follows:

Demand Contacts — handled by the Service Representatives with reference to a salesman if necessary.

Initiated Contacts — by both groups but primarily by the salesman, to selected customers.

The customer's two or three years requirements should be considered when making recommendations.

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## BUSINESS TELEPHONE DIRECTORY LISTINGS

Johnson Swan & Jones, Attys 1427 4th.....651-4722	Primary Listing	Mt Wilson Rest Center 32 Broadway.....655-1234	Joint User on "Phone Svc Inc" Listing
Johnson T A 662 3rd.....655-4212		Nobby Knit Shops Knit Gds.....655-3672	
Johnson Walter, Atty 1427 4th.....651-4722	Regular Additional Listing	Nolan Geo E 265 26th.....651-7787	Foreign Listing
Johnstone Richard 427 North.....651-1894		North Packing Co of Springfld 320 3rd Av Springfld.....203 322-6426	
Jones C M 98 State.....654-2222		North RA 931 Pine.....651-1992	Reverse Charge Listing
Jones Wm 93 Beacon.....654-3215	Reference or Alternate Call Listing	Northern Freight Lines 604 23rd From Springfld Telephones Call Opr for Enterprise.....3240 (No charge for such calls)	
Knight DE Atty 44 PkAv.....654-1551	Alphabetical Cross Reference	Owen Fred 2356 Ocean Av.....655-8975	
If no answer call.....651-1211		Phone Service Inc 32 Broadway.....655-1234	
Knobbey G N 683 Grant.....655-3423			
Knobby Knit Shop — See Nobby Knit Shop			
Knobel Alfred 601 E 15th.....655-8181			
Knott Henry 220 Broadway.....654-1684			

### LISTING ARRANGEMENTS

Marks Vern 3700 Dynes Av.....651-5970	Straight Line
Markwell Mary 227 E 21st.....655-5224	
Markwood H C 612 Oregon Av.....655-5446	
Fellders May 135 E 10th.....655-7948	Indented
Fellows Carl Ofc 928 Linden Av.....651-7826 Residence 928 Linden Av.....651-7826	
Cathedral Prep School Main Office 225 W 9th.....651-391 Assistant Headmaster's Office 225 W 9th.....655-396 Attendance Office 225 W 9th.....655-397 Athletic Dept 225 W 9th.....654-795 Cafeteria 225 W 9th.....654-531	Caption

Listings and arrangements such as these are designed to identify and assist in using telephone service. (Use of specific wording, phrases and abbreviations will vary with practices in various companies.)

#### THE MARKET

Business customers of all types are prospects for business directory listings. Usually the basic requirements are satisfied by the primary listing provided with business service. Other listings serve to make telephone service more convenient and valuable.

The market is more specifically pinpointed in the area of listings other than primary listings. Some typical characteristics of these listings are those customers who need:

- A different arrangement of names in a profession, firm or other business.

- Alternate call number listings -- another telephone number to call if the primary listed number does not answer.
- The names of officers, employees or representatives of the subscriber's business.
- Office hour listings -- the specific hours, and days on which a business or professional office is open for business -- used with telephone number.
- Other names by which the business may be known to the public.
- Use of phone service subscribed to by another.
- Listings in directories of other communities.

Large businesses that have departments or individuals to which many calls are directed, represent good prospects for directory listings.

Not to be overlooked are the smaller businesses that have the need for calls to be directed to their homes or to alternate numbers when away from their business.

It is difficult to pinpoint business categories that would be the best prospects. Rather, through the use of fact-finding on a contact, the listing needs of the prospect should become obvious.

## SERVICE DESCRIPTION

(See Exhibits on Front)

Listings are basically classified as primary or additional listings. Usually included as primary listings are the regular business and residence listings, joint users listings, foreign listings and special reverse charge listings.

### Primary Listing --

Provided as part of primary telephone service. Appears in alphabetical sequence in the white pages and under appropriate classified heading in the Yellow Pages.

### Joint User Listing --

Provided when one business jointly uses the telephone service of another business. The listing appears in the directory as a primary listing, i.e., in both the white and Yellow Pages.

### Foreign Listing --

Provides a listing in only the white pages of a directory in a foreign exchange comparable to primary listing in local directory.

### Special Reverse Charge Listing --

Provided when customer in local exchange wishes to be listed in a foreign exchange directory and assumes charges for toll calls from calling parties. Appears in both the white and Yellow Pages sections. Service is sometimes referred to as Enterprise or Zenith service.

Listing used in conjunction with these primary listings are referred to as additional or extra listings. Usually included are regular additional listings, reference or alternate call listings and alphabetical cross reference listings.

### Regular Additional Listing --

Used in addition to primary listing and appears only in white pages. Identifies members, officers and employees of businesses; agents or representatives of a business of the primary listing; provides different arrangement of the business name or other names by which the business is known.

### Reference or Alternate Call Listing --

Provides an alternate number by which the customer may be contacted with appropriate instructions such as "if no answer call".

### Alphabetical Cross Reference Listing --

Directs a calling party from one listing to another. May be used when a well-known business is sold and then given a different name. Provided as an aid to the public and is not designed for advertising purposes.



Arrangements of listings are the manner in which they are listed; such as Straight Line, Indented and Caption arrangements. Brief descriptions of these listings and arrangements of listings are as follows:

#### Straight Line Arrangement —

This form contains in a single line the name, business designation (where applicable), address and telephone number. Listings with too many characters are continued on a second line.

#### Indented Arrangement —

Alphabetical listings of the same customer where the name portions of the listings are identical may be indented to reflect business or residence listing.

#### Caption Arrangement —

Used when a customer has two or more numbers (not operated in rotary sequence) under the same name. The business name usually appears once as the main caption with the various services, departments, titles, branches, etc. sub-captioned (indented) thereunder.

### BENEFITS OF LISTINGS

#### Primary and Joint User Listings —

Adds to the value of telephone service by identifying and directing calls. Numbers are made available to thousands of customers through published directories and professional information services.

#### Foreign and Special Reverse Charge Listings —

Listings in directories of other communities can be used to expand market area for additional business and improved customer service. Reverse charge listings encourage added business through eliminating charges to customers.

#### Regular Additional Listings —

Avoids loss of important calls by providing listings for firm members, agents, other important individuals and other arrangements of name by which business is known. Minimizes loss of calls to competition.

#### Reference or Alternate Call Listings —

An alternate call number such as “if no answer” or “on weekends call” and directional information can provide added convenience to customers and insures customer goodwill and protects against after hours loss of business.

#### Alphabetical Cross Reference Listings —

Makes calling easier and helps to locate numbers when spelling is questionable or when a well-known business is sold and given a different name.

### LIMITATIONS

The sale of additional listings is limited to those appearing in the white pages of the directory.

Customer needs for Yellow Pages advertising should be referred to the Directory Company. Contacts for bold type listings are also handled as directory advertising.

### RATES

<u>Listing</u>	<u>Monthly Rate</u>
Joint User (Regular Business)	_____
Joint User (PBX & PABX)	_____
Foreign	_____
Special Reverse Charge	_____
Regular Additional	_____
Reference or Alternate Call	_____
Alphabetical Cross Reference	_____
Other	_____

## SALES STRATEGY

These listings and arrangements point up the importance of proper identification of business telephone service. Consequently, our approach should be to consider the total listing situation of a customer with special emphasis on Additional Listings.

Listing recommendations should be made as a part of the total review and recommendation. The characteristics outlined under The Market pinpoint good clues to Additional Listing requirements. The need for new extension telephone may also signal the need for identification of its prospective user.

In addition, in considering business requirements it is important that the customer's residence listings be reviewed.

Concentration on listings may also lead into advertising situations, and consequently, for the benefit of the customer and the General System proper and expedient referral to the Directory Company is essential.

## Local Publications –

- Commercial Practices
- Tariff Binders
- Directory Sales Practice

## Other –

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## EXECUTIVE MODEL SPEAKERPHONE TYPE 880



### DESCRIPTION

The Type 880 Executive Model Speakerphone main unit assembly and speaker assembly combined weighs seven pounds. The main unit assembly measures 9-1/4" wide, 5" high and 7-1/2" in depth. The speaker assembly measures 3-7/8" wide, 5-5/8" high and 3-3/4" in depth. The lower housing of the main unit assembly is equipped with soft rubber impregnated cork pads to protect desk and table tops.

The audible signal for the Type 880 Executive Model Speakerphone is a pleasant-sounding electronic tone. The tone signal is emitted from the speaker assembly.

### Options

When the Executive Model Speakerphone is supplied without the electronic tone signal, an externally mounted type 33 ringer unit may be used.

### Features and Benefits:

The telephone industry has long recognized that there is a substantial market for loudspeaking or "hands free" telephones.

The inherent customer benefits of the "hands free" principle are obvious -- the hands can be used for writing or other purposes while talking, the user can move about. The benefit of a small group participating in the telephone conversation at one time and in one office or location is made possible. This saves time and money.

The Executive Model Speakerphone (type 880) is flexible. It may be used as either a regular telephone or as a loudspeaking telephone. The OFF/ON switch button is used for switching from handset operation. It has a convenient Volume Control. The user merely adjusts



the Volume Control Wheel to regulate volume for different needs and situations -- privacy, "hands free" or conference arrangements. Saves effort -- eliminates fatigue. No need to hold handset; user can make and receive many more calls per day and work more efficiently.

Adds beauty and prestige to office decor. The new attractive, modern design is available in these standard colors-- Beige, White, Black, Gray, Green and Turquoise.

Fast, convenient installation -- just like a regular telephone. Designed to fit on desks or table tops.

## THE MARKET

The Executive Model Speakerphone can be successfully sold to selective types of businesses, with particular appeal to executives and others in administrative positions. Certain small businesses also have a real operating need for this service. Thus, the potential market for this type of communications service includes the Non-System, Small System, and Large System business user classifications.

The following list provides a cross-section of typical uses of the Executive Model Speakerphone. Use this as a guide in identifying potential customers. In addition, be alert to other uses and customers that have a requirement for this service.

### Typical Uses

- "Hands free" function
- Receiving calls when occupied with other work
- Taking prescriptions from doctors
- Sales conferences
- Taking orders
- Dispatching purposes
- Talk and search out information at the same time
- Administration -- expediting information received or sent out.

### Typical Customers

- Attorneys and other professional persons
- Medical -- Optometrists, Chiropractors etc.
- Laboratories
- Pharmacies
- Veterinarians
- Manufacturers
- Wholesale and Retail Trade
- Finance, Insurance and Real Estate

### Government

- Local, State and Federal Agencies
- Military -- Administrative

## Transportation and Utilities Services

### Air, Rail, Taxi, Bus and Water Service Utilities

The most profitable sales for the Executive Model Speakerphone are new installations and/or additions to existing systems. Here's where Executive Model sales should be directed. Of course, when a customer is moving or planning major service re-arrangements and an analysis shows that "hands free" service fits his needs, then the Executive Model should be recommended. If a customer is presently using an older model Speakerphone and it is doing the job for him, leave it alone. Change-outs are costly!

## COMPATIBILITY

The Executive Model Speakerphone is a complete self-contained unit which requires no additional power units, except when installed on a system powered by only 24 volts, such as L.55 and W.E.555 switchboards. External power supply is required in these exceptions.\* When used on extremely long loops with total loop resistance exceeding 1000 ohms, an external power supply is also required.\*

When the electronic tone signal is used, it operates only on individual or two party divided ringing lines. When the type 33 ringer unit is used, it may operate on multi-party lines.

Use 86A Key adapter for 10A1 push-button system application. (Not designed for use with Call Commander).

\*This power supply may be ordered by reference to order number L-7038-AO.

## CUSTOMER MUST SUPPLY

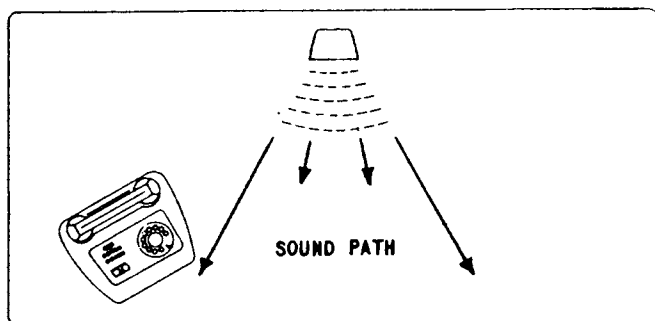
The Executive Model Speakerphone is a self-contained unit. There is nothing for the customer to supply except a source for 115 volts A.C. (The telephone company provides the external power units for installations requiring auxiliary power).

## LIMITATIONS

A word of caution. While the Executive Model has demonstrated itself as having the necessary features for successful Speakerphone application and operation, there are several limitations to its use. These limitations must be recognized by the salesman in order that proper sales can be made, and adequate retention of instruments may be maintained. Likewise, these limitations should be pointed out to the prospect so as to avoid excessive removals and subsequent customer dissatisfaction. Here are the limitations:

1. The Executive Model should be installed in a favorable acoustic environment -- one which has low room noise and avoids transmitted noise effects. The room should also be reasonably free from reflection to minimize reverberation of sounds.
2. The two basic pieces of the Executive Model -- the main unit assembly and the associated speaker -- should be properly arranged in the room to obtain maximum performance efficiency.
3. The Executive Model is, for the most part, a "hands free" telephone and not a "conference" telephone. The "hands free" function and not the "conference arrangement" function is the primary reason for ordering the Executive Model, and the major use after purchase.
4. As a person speaking moves away from the Executive Model's microphone, the sound in the distant receiver decreases. Thus, its use as a "mobility" function is somewhat limited.
5. In certain cases, where the Executive Model must be installed "behind" certain low voltage switchboards, such as Western Electric Type 555 or Leich Type L-55, an external power supply is required.

The importance of these effects can be reduced by the correct application and use of the Executive Model.



SUGGESTED ARRANGEMENT

## HOW IT OPERATES (Operating Instructions)

### To Make a Call --

Press the ON side of the switch button. When dial tone is heard, line is ready to use. Concurrently, a light in the button will start flashing. Proceed to dial your call. Speak into the microphone (located in the main unit assembly) -- not the loudspeaker; upon hearing your party, make speaker volume adjustment if necessary by adjusting the speaker volume control wheel.

### To Answer a Call --

Press the ON side of the switch button. The button light will start flashing.

### To Hang Up --

Press the OFF side of the switch button. The light will cease flashing. The light serves as a reminder to press the OFF switch.

### To Use as Regular Telephone --

Lift the handset and talk in the usual manner. The switch button should remain in the OFF position.

### To Switch From Speakerphone to Handset Operation and Vice Versa --

Lift the handset and push the OFF side of the switch button. The light will cease flashing and the conversation may be continued with the handset. To switch from handset to Speakerphone operation, push the ON side of the switch button and replace the handset.

### To Recall (Flash) The Operator --

When using the Speakerphone operation, alternately press the OFF and ON sides of the switch button. To talk privately to the operator, transfer to handset operation and push one of the hookswitch bars in the usual manner.

## RATES

Installation Charge \_\_\_\_\_

Monthly Rate \_\_\_\_\_

Other \_\_\_\_\_

## SPECIAL INFORMATION

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## SALES INFORMATION

The Executive Model, when properly used, offers customer convenience and satisfaction. The basic marketing objective is to broaden the market for "hands free" telephone service. This requires selective selling to only those customers having communication needs that can be met best by "hands free" service.

The Executive Model Speakerphone is not just a telephone. It is a precision-made instrument, designed and equipped to do a specific job. It must be properly sold to satisfy a bona fide customer need, properly installed and properly used in order to fully satisfy the customer's specific communications need. While the "conference or group" function is an important feature, the customer's requirement for the "hands free" function should be the customer's primary reason for buying the service this instrument provides, and the major use after purchase.

If you follow this three-point sales plan, it will result in sales, customer satisfaction, and profitable installations.

1. Determine the customer's situation -- does he have a legitimate and profitable use for this service?
2. Emphasize the importance of proper installation environment and arrangement of instrument and speaker.
3. Be sure the customer knows how to operate it properly and knows what to expect from it.

Check these three points on every sale. This will result in longer retention and increased sales profitability, resulting from complete customer satisfaction.

## REFERENCE PUBLICATIONS

### Technical:

TB-470-916 Type 880 Speakerphone Executive Model

### Sales Aids:

C-1041 Speakerphone -- Executive Model

### Additions:

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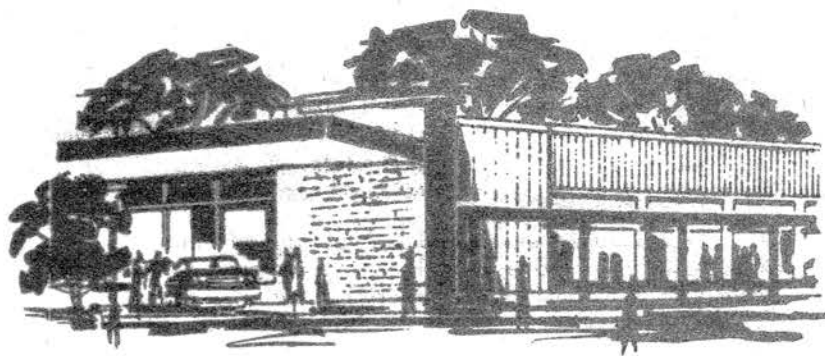


# COMMUNICATIONS SERVICE GUIDE

CSG  
100.005  
Issue 1



## HOTEL - MOTEL COMMUNICATIONS



### GENERAL DESCRIPTION AND PURPOSE

This CSG differs from most in that it covers the communications for a specific group of customers -- those in the Hotel-Motel industry. These communications are designed to serve two purposes -- the guest and the administration.

Guest communications provide services such as Room Telephones, Guest Dialing, Message Waiting, etc. Many of these are frequently considered by guests as standard services especially in the newer and larger hostelrys.

For administrative purposes many of the same services provide valuable and time-saving services for the staff as well as providing the basic communications for receiving reservations and the conduct of business.

This guide briefly summarizes information about this hotel-motel market, the communications they may require, and details on a sales strategy to provide the communications services which these customers can profitably employ.

### THE HOTEL-MOTEL MARKET

#### Background --

Until the last decade hotels dominated the lodging business with large installations in the downtown areas. However, improved highways, increased standards of living, increased air travel and additional leisure time have greatly increased the need for new and additional lodging facilities.

The lodging growth has primarily been provided by the new motels, grand motels and motor lodge additions to existing hotels.

#### Types of Hostelrys --

- | <u>Hotels</u>          | <u>Motels</u>                    |
|------------------------|----------------------------------|
| • Commercial-Transient | • Motor Courts or Tourist Cabins |
| • Residential          | • Motor Hotels, Lodges or Motels |
| • Resort               |                                  |

Commercial or Transient Hotels, usually open all year, cater to the traveling public with stopovers ranging from one night to a week or more. Some of these have added motor lodge sections to compete with motels.

Residential Hotels, also usually open all year, cater to longer staying or permanent guests.

Resort Hotels are sometimes a seasonal operation with guests welcomed for the night, weekend, vacation period or season.

Motor Courts or Tourist Cabins, frequently located on the outskirts of town, cater principally to families. Usually small in size (20 to 30 units) they are often operated by a husband and wife team.

Motor Hotels and Motels are a blend of the motor court and the hotel and may range in size from 30 to several hundred units. In most instances the motels are the newer facilities often featuring swimming pools, bars, restaurants and convention facilities like the big hotels.

#### Controlling Interests —

##### Chain Operations

Hilton  
Sheraton  
Howard Johnson  
Holiday Inn  
Travelodge

##### Associations

American Motor Hotel  
Master Host  
Quality Courts  
Best Western  
American Automobile Assoc.

Chain organizations such as above gain the advantages of large scale operation through centralized purchasing, better financing and, most important, national advertising and promotion. They may also provide guide lines or strict requirements concerning services such as communications.

Numerous associations unite many of the lodging facilities for mutual benefit especially through advertising and promotion. These associations often influence the operations by establishing minimum standards of accommodations such as telephones in each room.

#### Internal Organization —

While the smaller facilities are often independently owned and operated the larger motels and especially the hotels, usually have more complex organizations sometimes consisting of these two basic parts:

- Front of the House
- Back of the House

The Front of the House may consist of such things as the front desk, telephone service, security, housekeeping, valet, laundry and uniformed personnel.

In the Back of the House you may find services such as food, beverage, stewards, and room service personnel.

There may also be a Financial Department with responsibility of keeping all groups operating at a profit. In addition there may be a Building Superintendent and a Sales Department.

#### Market Composition —

Coinciding with available services hotels and motels can be classified into categories of small (up to 40 units), medium (40 to 80 units) and large (over 80 units).

Research indicates that approximately 85% of our customers are in the small category. Of these only around 10% have room telephone service for guests.

The medium size organization comprises about 10% of the total customers with approximately 50% having room telephone services.

Larger hotels and motels account for less than 5% of the customers, however, in this category approximately 80% have room telephone service.

Sales potentials will vary depending upon size. For the smaller operations, PBX systems and small dial systems will increase efficiency and give guests better service.

Some of the medium size customers also have need for PBX systems, however, a large number can also be shown the need and benefit of PABX and some of the more specialized communications.

And in the small group of large customers many can be converted to dial and the potential for other services becomes even more important. Sales to these customers can generate impressive revenues due to size of system required.

#### Trends and Problems —

- Modern Facilities
- Declining Occupancy Ratio
- Emphasis on Service
- Profit Squeeze
- Grand Motels
- Rate Cutting
- Luxurious Hotels
- Seasonal Variations

In recent years the trend has been toward the modern motor hotels and grand motels featuring all kinds of services. Competing with movement of motels to city centers, luxurious hotels in larger cities have been constructed. In addition face lifting and modernization programs are being undertaken on the older hotels.

Growth and competition have lowered occupancy ratios and increasing operating costs have brought the profit squeeze down on this industry too. To combat these situations some operators have resorted to rate cutting.

Statistics, however, indicate a large increase in business is required to offset even a modest cut in rates. Some operators are also confronted with seasonal variations which can cause financial duress during off-periods.



## HOTEL-MOTEL COMMUNICATIONS

The following services comprise the majority of services which are used profitably by hotels and motels:

- Basic Business Service
- Coin Telephone
- Reservation Services
- Special Phones
- Guest Room Telephones
- Guest Dial Service
- Message Waiting
- Automatic Answering
- Internal Administrative Systems
- Paging and Sound Reinforcement

The recommendation of these services depends on the type and size of operation and requires detailed analysis. A brief summary of these services follows:

### Basic Business Service —

- One Party Business Lines
- Directory Listing
- Yellow Pages Advertising



Individual line service supplemented with extensions, bells, gongs, etc. should be considered minimum service for administrative needs of the smallest customer. Coin telephone service may also be desirable to provide minimum guest service. Basic Service for any organization should also include appropriate listings and directory advertising.

Rate Reference:

Installation Interval:

### Coin Telephones —

- Coin Telephone Instruments
- Booths and Boothettes
- Signs



In the smallest of operations semi-public service may provide the minimum communications, however, caution should be exercised so as not to locate low paying coin telephones.

For most other hostelrys coin telephone service is an added guest telephone service and a source of revenue. (Sales personnel should bear in mind actual revenues of a paystation often include many charges in excess of money in coin box due to the common use of credit cards and collect calls when traveling.)

Rate Reference:

Installation Interval:

### Reservation Service —

- Long Distance Calls
- Call Collect
- TWX Service



Reservations can be made in several ways, ranging from "Courtesy Cards", authorizing preferred guests to call collect, to the use of TWX service. Helping guests make reservations is an essential service whether the hotel or motel is an independent or a member of a chain.

Rate Reference:

Installation Interval:

### Special Phones —

- Extension Telephones
- Portable Instruments
- Colored Equipment



Lodging facilities large and small benefit from extension telephones used for administration and for increased guest convenience. Color phones exemplify modern progressive accommodations and also stimulate guest usage. Portable phones and jacks strategically located serve guests or administration more conveniently and efficiently.

Rate Reference:

Installation Interval:

### Guest Room Telephones —

- PBX
- Guest Telephones



Room telephones are the foundation of good communications service for any hotel or motel. Moreover, this service is expected by the traveling public today and is a revenue producer for the hotel-motel.

Inside calling also means more use of room service, restaurant, laundry, valet or other money-making services provided by the hotel-motel as well as revenues from charges and commissions on calls.

Guest Room Telephone service may be provided with any of the manual PBX switchboards thus providing service manually through a switchboard operator.

Rate Reference:

Installation Interval:



### Dial Service for Small Motels -

- Up to 25 inside lines
- Up to 4 outside trunks
- Guests dial direct
- No attendant needed
- Night restriction



No special attendant is required. Guests can make inside and outside calls direct. (Time and charges are given by local operator to be billed before guest leaves.)

Manager can answer incoming calls from any telephone and extend them to desired party by dialing "4" and then the room number.

Rate Reference:

Installation Interval:

### Guest Dialing Services -

- Local Calls
- Long Distance
- One Digit Services
- Room to Room Dialing



For flexibility 24 hour GRT service is provided with special Hotel-Motel or standard PABX systems. Simple instructions provide guests with information as to dialing procedures for the various services.

Long Distance calls are usually placed by dialing to the hotel-motel switchboard operator or to the toll operator over long distance terminals. With arrangements using local operator toll diversion or toll restriction will usually be required to protect against unauthorized calls.

For fast and simple access to services such as room service, valet, etc. one digit dialing arrangements are also available.

Room to room dialing, too, is usually provided through dialing of station numbers usually corresponding with room numbers. (To avoid nuisance calls special night restriction can be provided.)

Rate Reference:

Installation Interval:

### Message Waiting Services -

- Control Cabinets
- Phones with Flashing Lamps



To provide speedy and reliable message service, lamps on guest telephones can be set to flashing from a central control cabinet. This competitive service can be provided on manual or dial systems and can save time in eliminating repeated calls to guest rooms.

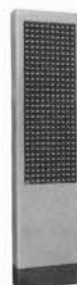
Rate Reference:

Installation Interval:

### Message Metering Service -

- Helps defray operating costs
- Gives an account-record of guests local calls

These meters are sometimes used to count calls for billing guests, thus providing additional revenues to offset costs.



Rate Reference:

Installation Interval:

### Automatic Answering Services -

- Long Play ELECTRONIC SECRETARY
- Answer Only Units



ELECTRONIC SECRETARY units used in the valet shop or other service departments enable guests to place orders when the shop is closed or when personnel are out momentarily. Round-the-clock service is offered with fewer employees, less expense, and greater profits. Automatic Answering Equipment can also be used to make special announcements to guests.

Rate Reference:

Installation Interval:

### Paging Service and Sound Reinforcement -

- Microphones
- Amplifiers
- Speakers
- Paging Cut-In Equipment



The most common application of paging is in locating a person within areas such as the lobby,

pool or recreation area. Paging is also used to control house personnel. The person being paged cannot reply via the paging system, but can answer over any administrative or guest telephone.

Sound Reinforcement is similar to paging equipment but is used for public address in the confines of one room or area, such as banquet halls or meeting rooms. The medium and large motels generally require only one paging system but may need sound reinforcement in several locations.

Rate Reference:

Installation Interval:

## SALES STRATEGY

Following the Sales policy of planned sales of any and all services customers can profitably employ, with a reasonable return to the phone company, two communications packages:

For the smaller "Administrative Service only" motels the package consists of:

1. Basic Business Service
2. Special Phones
3. Coin Telephones
4. Reservation Services

Services in this package should be recommended for the very small operations and should be used when it is obvious a customer cannot profitably employ the more complete guest services.

"Guests-Administration Service" packages for all other hotels and motels include:

- |                                 |   |
|---------------------------------|---|
| 1. Guest Room Telephones        | 8. Auxiliary                              |
| 2. Guest Dialing Service        | Internal                                  |
| 3. Message Waiting Service      | Systems                                   |
| 4. Special Phones               | 9. Administrative                         |
| 5. Reservation Services         | Telephone                                 |
| 6. Coin Telephone Service       | System                                    |
| 7. Automatic Answering Services | 10. Advertising & Business Identification |

The extent to which these services are employed will depend on many factors such as size, degree of analysis and quality of salesmanship.

An initial approach to this market is through market coverage of all facilities in the area. In connection with market coverage planned sales calls and analysis of business functions should

provide information as to the guest and administrative needs.

When preparing to make the recommendation the information obtained during usage prospecting must be considered in terms of customers' basic goals which are:

- To Attract More Business
- To Promote Return Business
- To Increase Revenues
- To Reduce Operating Costs

## RATES

The following should be considered when presenting rates:

- The dollar value of the intangible items such as additional guests, return business, increased telephone sales and sales to other house service and the savings from reduced operating costs.
- The competitive situation created by other similar units with guest services, especially those locally.
- The fact that lodging facilities with guest telephone service usually have higher occupancy ratios and obtain higher average room rates.
- And finally, the often applied accounting principle which considers the telephone department as self-sustaining but frequently operating at a loss rather than as an operating expense essential to the conduct of business.

Using these facts presentation of rates should be based on helping the customer achieve his basic goals, pointing out the true value of guest communications, emphasizing competitive situations and showing him ways to substantiate and offset costs to the end that his business will be more profitable.

## REFERENCES

Many references on the various items of service for hotels and motels are available. These include:

- Sales Circulars
- Tariffs
- Rules and Regulations
- Plant and Engineering Practices
- Salesman's Reference Manual
- Sales Aid on 40 & 80 PABX C-1054
- Sales Aid on 25M Motel PABX C-1038
- L-55-200 Sales Aid C-1055

In addition to Company references there are various trade journals such as Tourist Court Journal and American Hotel-Motel Management and a comprehensive summary of guest dial systems prepared by the Bell Company.

## SUMMARY OF SERVICES AND BENEFITS

<u>Service</u>	<u>Hotels and Motels Benefit</u>	<u>Guest Benefits</u>
Guest Room Telephones	Charges and commissions on calls provide income. Sales by other money-making house services increased. Additional business is attracted. Satisfied guests come again. Control and efficiency is improved.	Local and long distance calls placed or received. Convenience and security are provided. Desired services readily available. Community directory is provided.
Guest Dialing Service	Enhances competitive position. Reduces operating expense. Costly manual operation reduced. Revenue producing calls stimulated. Greater guest satisfaction. Sales by other services increased.	Guests place their own calls. Service is faster. Provides added privacy. Round the clock service is more convenient.
<ul style="list-style-type: none"> <li>• Local Calls</li> <li>• Long Distance</li> <li>• One Digit</li> <li>• Room to Room</li> </ul>		
Message Waiting Service	Saves time. Eliminates intermittent checking. Reduces complaints and irritation due to lost or delayed messages. Features contained in compact telephone system without major capital outlay.	Speedy and reliable service. Avoids delayed or lost messages. Eliminates checking with operator.
Special Phones	Proven stimulation of telephone usage. Color increases eye appeal. Convenient for impulse calls. Added flexibility in administrative functions.	Color adds to pleasant decor. Extensions and lobby phones add to guest convenience. Portable phones bring service to guests.
<ul style="list-style-type: none"> <li>• Color Phones</li> <li>• Portable Phones</li> <li>• Extensions</li> </ul>		
Reservation Service	Cooperative efforts encourage additional business. Occupancy ratio increased. Provides for advance planning. Guests impressed with parting service.	Provides assurance of lodgings. Saves guest time and money. Assures good quality accommodations.
<ul style="list-style-type: none"> <li>• Call Collect</li> <li>• Long Distance</li> <li>• TWX</li> </ul>		
Coin Telephone Service	Provides additional revenues. Exemplifies modern accommodations. Another trouble-free guest service. Service available for convention and dining guests.	Allows for impulse calls. Saves guest time and provides added convenience. Provides added privacy.
Automatic Answering Services	Efficient 24 hour services. All orders received. Fewer personnel required.	Eliminates "no answers." Services always available. Provides faster services.
Inside Communications	Give special announcements. Locates people fast and efficiently. Saves time and steps. Gives the ultimate in guest services.	Helps locate friends. Provides faster service. Provides maximum guest convenience and relaxation.
<ul style="list-style-type: none"> <li>• Paging</li> <li>• 2-Way Intercoms</li> </ul>		
Administrative Communications	Provides inside and outside communications with minimum cost. Saves time and steps in administration. Faster customer service.	Faster reservations. Provides improved house services. Minimizes delays.
Business Identification	Helps to attract more guests. Directs guests to convenient telephone door. Occupancy ratio improved with guests from near and far.	Provides easy identification of better lodging facilities. Advises prospective guest of services available. Facilitates advance reservations.
<ul style="list-style-type: none"> <li>• Advertising</li> <li>• Directory Listing</li> <li>• TWX Listing</li> </ul>		



# COMMUNICATIONS SERVICE GUIDE

CSG  
100.009  
Issue 1

## MODEL SP-2 ELECTRONIC SECRETARY<sup>®</sup> TELEPHONE ANSWERING SET



### Model SP-2 Electronic Secretary Telephone Answering Set, with microphone and standard telephone.

#### DESCRIPTION

The Model SP-2 Electronic Secretary Telephone Answering Set fills the need for a dependable, short-play telephone answering unit. This unit is designed for residential and small business customers who receive only a limited number of incoming telephone calls.

Model SP-2 will deliver a 15-second announcement message and will record up to twelve, 15-second incoming calls in any single period. The unit is easy to operate and maintain. The user records his own announcement

and the recorded messages are played back through the microphone supplied with the unit.

The attractive beige color of the unit fits well in any home or office setting. The dimensions are 6½" high x 11" wide x 12" deep. It weighs 28 pounds.

The SP-2 features unit type of construction. The amplifier and control assembly have plug-in units. Any one of the principal sub-assemblies can be removed from the main assembly without unwiring or using involved disassembly techniques.

AUTOMATIC ELECTRIC COMPANY

## FEATURES AND BENEFITS

Features		Benefits
Automatically answers telephone.	—	Eliminates need for an operator or receptionist.
Records up to 12 incoming calls.	—	Adequate capacity for residential or smallbusiness subscriber.
Modern, attractive appearance.	—	Matches the decor of any home or office.
Compatible.	—	Does not interfere with normal telephone usage.
Completely transistorized.	—	For low power consumption and instant record and play back.
Printed circuits.	—	Assure many years of trouble-free performance.
Functional design.	—	Inexpensive to operate and maintain.
Small compact design.	—	Has immediate sales appeal.
Unit construction.	—	Simplifies maintenance.
Dial control.	—	Simple to use.
Channel indicator.	—	Shows number of messages received.
Lowest priced telephone answering set on market.	—	Low rental will attract subscribers. Low investment for telephone company. Good revenue return.

## THE MARKET

The Model SP-2 is designed for small businessmen, professional people, and residential customers who will profit by having telephone calls answered 24 hours a day, 7 days a week.

The following applications for the Model SP-2 are typical of the many locations where this unit can be profitably sold:

- Retail merchants -- to answer the telephone and take messages at any time of day, especially when customers are in the store or place of business.
- Music teachers -- to take messages while lessons are in progress.
- Agents and distributors -- to take messages when office is unattended.
- Pharmacists -- to answer calls during busy periods, and to take requests for prescriptions to be filled.
- TV and appliance repairmen -- to answer calls from customers while out on service visits.
- Church groups, fraternal lodges and political organizations -- to take messages between meetings.
- Printers and artists -- to record messages while away from the office.
- Doctors -- to answer the telephone when out of office.
- Residential customers -- to answer calls for men or women busy in social work or community affairs.

## CONSIDERATIONS

The Model SP-2 has a capacity of receiving twelve, 15-second messages. In most instances each message received must be limited to the name and telephone number of the person calling and a brief statement of the nature of the call. This unit should not be sold where a large number of incoming messages are expected to be recorded or where long messages must be recorded.

## CUSTOMER MUST SUPPLY

The customer must supply a source of 115 volt a.c. power within reach of the unit's 8-foot cord. The customer must also supply a desk, table, shelf, or counter space for the small compact unit which weighs only 28 pounds.

## HOW IT OPERATES

Dictate announcement message:

Plug the microphone furnished with the answering set into the jack. Place the channel selector switch in the DICTATE position. Momentarily operate the on-off switch to START position. Begin dictating when the word START passes the DICTATE window. Gauge your time by the indicated seconds remaining in the DICTATE window.

Checking the announcement:

Turn the selector switch to CHECK. Momentarily operate the on-off switch to the START position. The announcement message will play back through the microphone.

Receiving incoming messages:

Turn the selector switch to AUTOMATIC ANSWER. When the telephone rings, the Model SP-2 trips the ring and delivers the announcement message. The calling party hears a tone when the answering set is ready to receive the incoming message. Calling parties usually are asked to leave their name, telephone number, address, and a short message of what is wanted. The calling party then hears another tone when the time allotted for the message has ended.

Play back of incoming messages:

Turn the selector switch to PLAYBACK. Plug the microphone into the jack. Press the RESET button to reset the channel selector to play back the first message. Momentarily operate the on-off switch to START position to hear the first message played back through

the microphone. Press the INDEX button to advance the channel selector to play back the next channel. Each time the INDEX button is pressed, the channel selector moves to the next channel. The on-off switch must be operated to START each time an individual message is to be played back.

## RATES

Installation charge .....  
Monthly charge .....  
Other charges .....

## SALES STRATEGY

The Model SP-2 should have applications in practically every operating telephone company area, no matter how small the community. This unit is a logical first among answering sets to be sold by a telephone company not presently offering answering set service.

Examine the yellow pages of the telephone directory to assist in building a list of prospects for this profitable service.

Here is a three point sales plan that will boost sales and lead to many profitable installations for the customer and the telephone company:

1. Determine if the customer has an actual profitable use for this service.
2. Make sure the unit is installed correctly. Check the installation environment. Make sure nothing will interfere with the operation of the machine.
3. Be sure the customer knows how to operate the unit properly. Stress proper recording technique and the importance of outgoing message content.

## REFERENCE PUBLICATIONS

Sales aids:

- ES-115 - Model SP-2 Electronic Secretary.
- A-1126 - Electronic Secretary Sales and Usage Guide.

Technical:

- TB-440-758 -- Model SP-2 Electronic Secretary Installation, Operation and Maintenance.
- TB-440-768 - Model SP-2 Electronic Secretary Maintenance.

Other:

- Catalog 11,000, Section I., Recorders and Announcers.



NOTES:

# COMMUNICATIONS SERVICE GUIDE

CSG  
100.010  
Issue 1

## ELECTRONIC SECRETARY<sup>®</sup>

### MODEL LP-TD-C

### TELEPHONE

### ANSWERING

### SET



#### DESCRIPTION

The Model LP-TD-C Electronic Secretary Telephone Answering Set fills the need for a dependable long-play telephone answering unit. The unit is designed primarily for the company receiving a large number of incoming calls or messages of great length.

Model LP-TD-C will take sales orders, field reports, employee suggestions, reports of maintenance troubles, customer complaints, and dozens of other type messages. The length of the incoming message can be as short as 10 seconds or as long as two hours. The incoming messages, when played back, are reproduced in a loudspeaker (or optional headset).

This unit answers all calls with a pre-recorded announcement message. Maximum announcement message recording interval is governed by the length of the tape in the endless loop tape cartridge. A 30-second tape is furnished as standard, but tape lengths from

30 seconds to 3 minutes are available. Announcement messages can be changed quickly and easily at any time with the high-quality dynamic hand microphone furnished with the unit.

The LP-TD-C features modular type construction, measures 20" wide, 16" deep, and 10 1/2" high, and weighs 65 pounds. The rugged steel cabinet is furnished in textured beige enamel.

#### OPTIONAL

Foot control enables the transcriber to start, stop, rewind, and back-space the playback mechanism, leaving the hands free. The interval of back-spacing is adjustable. The foot control is also available without the back-spacing feature.

The headset eliminates office noise and assures privacy when playing back messages. Inserting the headset into the receptacle provided automatically mutes the playback speaker.

## FEATURES AND BENEFITS

<u>Features</u>	<u>Benefits</u>
Answers telephone automatically.	— Delivers announcement message in users own pre-recorded voice.
Takes messages.	— Calls are recorded word for word to eliminate any errors.
Records messages of various lengths.	— Messages can be as short as 10 seconds or as long as 2 hours.
Answers telephone 24 hours a day.	— Provides customer convenience; they can call at their discretion night, day, weekends, or holidays.
Assurance tone.	— If a caller pauses for 4 seconds, he will hear a low tone which assures him he is still being recorded.
Tape exhaustion tone.	— Informs caller that the machine has reached its capacity of recording time.
Can be used as an answer only machine.	— Customer at times may just want to give information and not receive any messages.
Recorded messages play back through a 3'' x 4'' PM speaker.	— Provides high quality playback listening.
Attractive, rugged, rust proof steel cabinet of modular construction finished with 2 coats of textured beige enamel.	— Blends well with any office decor.
Heavy duty, ball bearing motors, each with a specific function.	— No lubrication required, no fans for cooling, extends life of tape mechanism.
Fail safe (reserve power) feature.	— Prevents tape from "spilling off" tape reel in the event of a power failure.
Completely transistorized.	— Assuring long operational life and low power consumption.
Premium quality electronic components.	— Assures low maintenance and out of service time.
Three dip-soldered printed circuit boards.	— Keeps maintenance cost low and provides fast and easy maintenance.
Dynamic braking.	— No mechanical brake adjustments to stop tape reels. All done electrically for smooth operation.
High quality microphone.	— Provides excellent reproduction for recording announcement.
All pushbutton operation.	— Provides ease of operation.
Compatible.	— Does not interfere with normal telephone usage.
Provided with auxiliary contacts.	— Machines may be wired in tandem if longer than 2 hours of recording time is needed.

## THE MARKET

The Model LP-TD-C is designed for customers who will profit by having their calls answered and messages of great length taken. The unit can be operational 24 hours a day, 7 days a week, providing around the clock answering for customers such as:

Department Stores  
Hospitals & Clinics  
Newspapers (Want Ads)  
Veterinarians  
Insurance Companies  
Pharmacists  
Radio Stations  
Meat Packing Companies  
Telephone Companies  
Air Lines

## CONSIDERATIONS (Limitations)

### General

The Model LP-TD-C Electronic Secretary Telephone Answering Set must be properly sold, properly installed, and properly used to fully satisfy a customer's specific need for this versatile unit.

### Capacity

The recording capacity of the Model LP-TD-C is limited to a two-hour recording. Incoming calls will not be answered after the two-hour recording capacity has been reached. A "tape exhaustion tone" informs the caller that the two-hour recording tape is exhausted.

## CUSTOMER MUST SUPPLY

The customer must supply a source for 115 volt a.c. power within reach of the 8-foot power cord furnished with the unit. The customer must also supply a desk or table sufficiently strong to support a machine weighing 65 pounds. The location for the unit should have unrestricted ventilation.

## HOW IT OPERATES

### Recording Announcement Message

- Lift black cover on right side of panel.
- Plug microphone into MICROPHONE jack.
- Depress AUTO ANSWER button.

- Depress and hold ANNOUNCEMENT DICTATE button.
- Dictate the announcement message.
- At the completion of message, release the ANNOUNCEMENT DICTATE button.
- A 2-second tone is automatically recorded on the tape at the end of the message.
- The TONE lamp lights after the tone is recorded, thus, indicating the message and tone are recorded satisfactorily.
- If the TONE lamp fails to light, the announcement message is too long; consequently, it must be shortened and redictated.

### Announcement Check

- To check announcement messages, depress and hold the ANNOUNCEMENT CHECK button until beginning of message is heard.
- Adjust VOLUME CONTROL.

### Automatic Answer Cycle

- To set the machine for automatic answering, depress the AUTO ANSWER button.

### Playing Back Incoming Messages

- Press the REWIND button to rewind the incoming message recording tape.
- To start playback, depress the PLAY-BACK button.
- The VOLUME control can be adjusted to obtain a satisfactory listening level.
- Playback can be heard over the loud-speaker or through a headset. A foot control switch is available to provide hands free operation during the playback cycle.

### Erase Recorded Messages

- To erase any messages that have been recorded, simultaneously depress the REWIND button and the ERASE button. The tape is erased during the rewinding process.
- If any message on the tape is not erased, the machine will erase it during the record cycle. However, because of pauses between new messages, bursts of previously recorded messages may be heard between the new messages.



## RATES

Installation charges.....

Monthly charges.....

Other charges.....

## SALES STRATEGY

Applicants for LP-TD-C can be found in every telephone company.

These applicants have need for a telephone answering machine which will record messages of short duration, great length, or if they accept long distance calls from customers.

The following three-point sales plan will boost sales and lead to many profitable installations for the telephone company.

- ▶ Determine if the customer has an actual profitable use for this service.
- ▶ Make sure the unit is installed correctly.

Check the installation environment. Be sure nothing will interfere with the operation of the machine.

- ▶ Make sure the customer knows how to operate the unit properly. Stress correct recording technique and the importance of outgoing message content.

## REFERENCE PUBLICATIONS

### Technical:

- TB 478-756-Electronic Secretary Model LP-TD-C, Operation Maintenance Manual

### Sales Aids:

- C-1048 - Your Telephone Lines Are Always Open When You Have An Electronic Secretary Telephone Answering Set Model LP-TD

### Other:

- Catalog 11,000 Section L

## NOTES:

# COMMUNICATIONS SERVICE GUIDE

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## ELECTRONIC SECRETARY<sup>®</sup>

### MODEL LP-3

### TELEPHONE

### ANSWERING SET



#### DESCRIPTION

The ELECTRONIC SECRETARY Model LP-3 Automatic Telephone Answering and Recording Set fills the need for a dependable, long-play telephone answering unit. The unit is designed primarily for the company receiving a large number of incoming calls or messages of great length.

The Model LP-3 will take sales orders, field reports, employee suggestions, reports of maintenance troubles, customer complaints, and numerous other type messages. The length of an incoming message can be as short as 10-seconds or as long as 2-hours. Incoming messages, when played back, are reproduced in the loudspeaker, the handset, or the optional headset.

This unit answers all calls with a variable, pre-recorded announcement message. Maximum announcement message recording interval is 3-minutes. A 3-minute tape is furnished as standard, but announcement may vary from

5-seconds to 3-minutes. Announcement messages can be changed quickly and easily at any time by using the standard telephone handset furnished with the unit.

The Model LP-3 features modular type construction, measures only 14-3/4" wide, 11-3/4" deep, and 5" high, and weighs 38 pounds. The rugged steel cabinet is finished in textured beige enamel with grey front screen and brushed aluminum front housing.

#### OPTIONAL

Foot control - enables the transcriber to start, stop, rewind, and back-space the playback mechanism, leaving the hands free. The interval of back-spacing is adjustable. The foot control also is available without the back-spacing feature.

Headset - eliminates office noise and assures privacy when playing back messages. Inserting the headset into its receptacle automatically mutes the playback speaker.

## FEATURES AND BENEFITS

Features	Benefits
Answers telephone automatically.	— Delivers announcement message in user's own pre-recorded voice.
Variable announcement recorder.	— Customer may change length of announcement at will.
Takes messages.	— Calls are recorded word for word to eliminate any errors.
Records messages of various lengths.	— Messages can be as short as 10-seconds or as long as 2-hours.
Answers telephone 24-hours a day.	— Provides customer convenience; they can call at their discretion night, day, weekends, or holidays.
Monitor amplifier.	— Enables user to listen to calling party record his message.
Calling party control.	— Allows machine to disconnect immediately when calling party hangs up.
Voice control.	— Allows calling party to record up to 2-hours.
Assurance tone (talk down tone).	— If a caller pauses for 4-seconds, he will hear a low tone which assures him he is still being recorded.
AVC (automatic volume control).	— Smooths out incoming recording levels.
Tape exhaustion tone.	— Informs caller that the machine has reached its capacity of recording time.
Can be used as an "answer only" machine.	— Customer at times may just want to give information and not receive any messages.
Recorded messages play back through a 3" x 5" PM speaker.	— Provides high quality playback listening.
Heavy duty, ball bearing motors, each with a specific function.	— No lubrication required, no fans for cooling, extends life of tape mechanism.
Fast rewind (rewinds 2-hours of recorded messages in 23-seconds).	— Enables user to rewind quickly for playback or to rewind and erase old messages faster before preparing machine for new incoming messages.
Fail safe (reserve power) feature.	— Prevents tape from "spilling off" tape reel in the event of a power failure.
Completely transistorized.	— Assures long operational life and low power consumption.
Premium quality electronic components.	— Assures low maintenance and minimizes out of service time.
Three dip-soldered printed circuit boards.	— Keep maintenance cost low and provide fast and easy maintenance.
Dynamic braking.	— No mechanical brake adjustments to stop tape reels. All done electrically for smooth operation.
Handset.	— Provides excellent reproduction for recording announcement, checking announcement, monitoring and playback.
All pushbutton operation.	— Provides ease of operation.
Compatible.	— Does not interfere with normal telephone usage.
Provided with auxiliary contacts.	— Machines may be wired in tandem if longer than 2-hours of recording time is needed.
Attractive, rugged, rust proof steel cabinet of modular construction finished with two coats of textured beige enamel.	— Blends well with any office decor.

## THE MARKET

The Model LP-3 is designed for customers who will profit by having their calls answered and messages of great length taken. The unit can be operational 24 hours a day, seven days a week, providing around the clock answering for customers such as:

- ▶ Department Stores
- ▶ Hospitals & Clinics
- ▶ Newspapers (Want Ads)
- ▶ Veterinarians
- ▶ Insurance Companies
- ▶ Pharmacists
- ▶ Radio Stations
- ▶ Meat Packing Companies
- ▶ Telephone Companies
- ▶ Air Lines
- ▶ Manufacturing Companies (Parts Ordering)

## CONSIDERATIONS (Limitations)

### General

The Model LP-3 ELECTRONIC SECRETARY Telephone Answering Set must be marketed properly, installed correctly, and used properly to fully satisfy a customer's specific need for this versatile unit.

### Capacity

The recording capacity of the Model LP-3 is limited to 2-hours. Incoming calls will not be answered after the 2-hour recording capacity has been reached. A "tape exhaustion tone" informs the caller that the 2-hour recording tape is exhausted.

## CUSTOMER MUST SUPPLY

The customer must supply a source of 115-volt ac power within reach of the 8-foot power cord furnished with the unit. The customer also must supply a desk or table sufficiently strong to support a machine weighing 38 pounds. The location for the unit should have unrestricted ventilation.

## HOW TO OPERATE

### Recording Announcement Message

- Operate OFF-ON switch to ON.
- Lift handset.

- Depress STOP button.
- Depress and hold DICTATE button.
- Dictate the announcement message after DICTATE lamp lights.
- At the completion of announcement, release DICTATE button.
- A tone is automatically recorded on the tape at the end of the announcement.
- Announcement mechanism will automatically rewind. (Allow DICTATE lamp to extinguish before proceeding to another function.)

### Announcement Check

- To check announcement message, depress STOP button.
- Depress and hold CHECK button until beginning of announcement is heard.
- Adjust VOLUME control.

### Automatic Answer Cycle

- To set the machine for automatic answering, depress AUTO ANSWER button. The AUTO ANSWER lamp will illuminate.

### Monitor Amplifier

- Depress AUTO ANSWER button.
- Adjust VOLUME control to proper listening level.

### Playing Back Incoming Messages

- Depress REWIND button to rewind the incoming message recording tape.
- Depress AUTO ANSWER button to index tape to 0. (AUTO ANSWER lamp will illuminate when tape is indexed.)
- To start playback, depress PLAY BACK button.
- Adjust VOLUME control to a satisfactory listening level.
- Playback can be heard over the loudspeaker, the headset, or the handset.

### Erase Recorded Messages

- To erase any messages that have been recorded, simultaneously depress REWIND



button and ERASE button. The tape is erased during the rewinding process. (To index to 0 - depress AUTO ANSWER button.)

### Answer Only

- Depress AUTO ANSWER button and ANSWER ONLY button. AUTO ANSWER lamp will illuminate.

### RATES

Installation charges. . . . .

Monthly charges. . . . .

Other charges. . . . .

### SALES STRATEGY

Applicants for Model LP-3 service can be found in every telephone company.

These applicants have need for a telephone answering machine which will:

- Record messages of short duration.
- Record messages of great length.
- Accept long distance calls from customers.

The following sales plan will boost sales and lead to many profitable installations for the telephone company.

- ▶ Determine if the customer has an actual profitable use for this service.
- ▶ Make sure the unit is installed correctly. Check the installation environment.
- ▶ Be sure nothing will interfere with the operation of the machine.

- ▶ Make sure the customer knows how to operate the unit properly. Stress correct recording technique and the importance of outgoing message content.

### Notes:

- Explain value of Business Building Kit to orient his customers to this new service.
- Follow-up after installation (30 days) to verify satisfaction on the part of the customer.

### REFERENCE PUBLICATIONS

#### Technical:

- General System Practices No. 478-132-200 - ELECTRONIC SECRETARY, Model LP-3, Installation and Field Maintenance.
- General System Practices No. 997-403-400 - ELECTRONIC SECRETARY, Model LP-3, Functional Diagrams.
- General System Practices No. 997-406-500 - ELECTRONIC SECRETARY, Model LP-3, Mechanical Tests.
- General System Practices No. 997-406-501 - ELECTRONIC SECRETARY, Model LP-3, Electrical Tests.
- General System Practices No. 997-406-800 - ELECTRONIC SECRETARY, Model LP-3, Replacement Parts.
- CI 478-121 - How to Operate Your ELECTRONIC SECRETARY Automatic Telephone Answering Set, Model LP-3.

#### Other:

- Catalog 11,000, Section M.

### NOTES:

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## MODEL RFP ELECTRONIC SECRETARY<sup>®</sup> TELEPHONE ANSWERING SET



Model RFP Electronic Secretary Telephone answering set with microphone and personal call-back signaler for remote control.

### DESCRIPTION

Model RFP Electronic Secretary is an automatic telephone answering set that records as many as 120 thirty-second-long messages and replays these messages at any time as directed by a personal call-back signaler.

Messages recorded by the Model RFP can be played back manually by operating a pushbutton and rotating a switch on the machine as with other Electronic Secretary models, or by rewinding the recorded messages from a remote location by using the call-back signaler. To rewind the recorded messages from a remote location the telephone number is called in the usual manner. At the proper time after the announcement message is heard, the call-back signaler is held to the transmitter of the telephone. This rewinds the tape mechanism and begins to remotely play back all the messages received by the answering set.

The call-back signaler can also be used to back space and replay any portion of the recorded messages as often as necessary. After listening to the messages, the tape can be rewound and erased completely, thus resetting the unit to full capacity. All of these operations can be controlled from a remote location by using the call-back signaler.

The standard announcement tape cartridge supplied with the Model RFP permits a 20-second announcement message and a 30-second incoming message. Tapes with other capacities are available upon request.

The Model RFP is equipped with a loudspeaker and volume control for use when playing back the recorded messages manually. A foot switch and headset are available as optional equipment to facilitate transcribing.

The Model RFP will switch to remote control operation when it receives a signal over the telephone line from the call-back signaler. This pocket-sized signaler is transistorized and battery-operated. Due to the normal shelf-life limitations, the battery should be replaced every 12 months.

The RFP is fully-transistorized and uses printed circuit boards to eliminate the maze of control panel wiring that otherwise would be necessary. The tape mechanism and dynamic braking system are designed to prevent tape spillage during rewind, fast forward, or playback.

Model RFP has a beige housing and measures 10½" high, 21½" wide x 16½" deep, and weighs 70 pounds. The control panel is conveniently located for ease of operation.

AUTOMATIC ELECTRIC COMPANY

## FEATURES AND BENEFITS

<u>Features</u>		<u>Benefits</u>
Remote playback control.	—	Enables customer to listen to recorded messages at any time from any distance and from any telephone.
Completely transistorized.	—	For low power consumption -- instant record and playback.
Uses magnetic tape.	—	Provides better recording and playback fidelity.
Replaceable tape.	—	Tapes can be kept for future reference.
Headset and foot control jacks.	—	Hands-free transcribing.
Capacity for 120 thirty-second-long incoming messages.	—	Designed for the user with heavy telephone traffic.
Fixed message time.	—	Will receive up to 120 thirty-second-long messages.
Four electric motors.	—	Extends normal life to many years.
Dynamic electric braking of tape mechanism.	—	Prevents tape snapping or grabbing.
Fail-safe tape mechanism.	—	Prevents tape spillage during rewind, fast forward or power failure.
Equipped with microphone.	—	Customer can record or change announcement message as desired.
Printed circuits.	—	Assure many years of trouble-free performance.
Compatible.	—	Does not interfere with normal telephone usage.
Loudspeaker.	—	Provides better playback fidelity.
Monitor feature.	—	Customer can check recorded announcement message.
Modern, attractive appearance.	—	Looks well in any office decor.
Fast rewind.	—	One hour of recorded tape can be rewound in less than one minute.
Fast forward.	—	Rapid selection of certain messages.
Elapsed tape indicator.	—	Visual indication that messages have been received.

## THE MARKET

The Model RFP is designed for customers and professional people who will profit by having their telephone calls answered and messages taken with remote call-back as a built-in feature of the equipment. With the Model RFP these features are available on a 24 hour a day basis, seven days a week, if necessary. Prospective customers for Model RFP service include:

Service companies

Sales representatives

Wholesale houses

Professional people -- doctors, lawyers, etc.

Printers

Warehouses

Trucking companies

Travel agencies

Newspapers

Real estate companies

## CONSIDERATIONS

The Model RFP has a fixed interval for the recording of incoming messages. The standard tape cartridge provides for a 20-second announcement and up to 120 incoming messages of 30-seconds duration. Tape cartridges can be provided for announcement and incoming record messages of other lengths. This will correspondingly reduce or increase the number of incoming messages that can be recorded.

In most instances, each message received will be limited to the name and telephone number of the person calling and a brief statement of the nature of the call. This unit should not be sold where long messages must be recorded.

## CUSTOMER MUST SUPPLY

The customer must supply a source of 115 volt a.c. power within reach of the 8-foot power cord furnished with the unit. The customer must also supply a desk, table, shelf, counter space, or some similar support for the machine, which weighs 70 pounds.

## HOW IT OPERATES

### Recording announcement message:

Plug the microphone furnished with the answering set into the jack. Turn selector switch to DICTATE position. Momentarily depress the DICTATE-CHECK button to start the machine. Dictate the announcement message. A tone will be heard through the loudspeaker when the record time is ended. The remainder of the tape is allotted to the incoming message time.

### Checking the announcement:

Turn the selector knob to CHECK. Depress the DICTATE-CHECK button to start the machine; adjust volume control. The announcement message will play back through the loudspeaker.

### Receiving incoming messages:

Turn the selector knob to AUTOMATIC. Depress AUTO ANSWER side of the AUTOMATIC rocker switch. When the telephone rings, the Model RFP trips the ring and delivers the outgoing message. The calling party hears a tone when the answering set is ready to record the incoming message. Calling parties usually are asked to give their name, telephone number, address and a short message of what is wanted. The calling party hears two tones when the time allotted for the message has ended.

### Using automatic answer -- remote play:

Turn the selector knob to AUTOMATIC. Depress the AUTO ANSWER-REMOTE PLAY side of the AUTOMATIC rocker switch. Call the answering set telephone number. Listen to the announcement message. Dictate a marker message after the single-beep, midcycle tone is heard. This is the same procedure that a regular caller is expected to follow in using the service. Hold the call-back signaler against the telephone transmitter and depress the tone button when the double-beep pre-disconnect warning tone is heard. Release the tone button when an acknowledgment tone is heard in the telephone receiver.

The Model RFP will then automatically rewind to the beginning of the recording tape and play back to the telephone line all the recorded messages.

The unit will revert to the automatic call-back standby condition when all the recorded messages have been played back.

The Model RFP can be switched to rewind at any time (to repeat a message) by applying the pocket oscillator to the telephone transmitter and pressing the tone button. The tone button should be released when the acknowledgment tone is heard in the telephone receiver.

To switch the unit back to playback function, re-apply the pocket oscillator tone to the telephone transmitter. Release the tone button when the acknowledgment tone is heard in the telephone receiver. The unit will complete the remote play cycle.

To rewind and erase, after all messages have been heard and upon hearing the marker message, apply the call-back signaler to the telephone transmitter and depress the tone button. Do not release the tone button when the recognition tone is heard. Release the tone button when the recognition tone is suddenly terminated in the telephone receiver. This indicates that the Model RFP is in the rewind-erase operation. The unit will revert to the automatic answer-remote play standby condition, thus restoring full recording capacity, when the rewind-erase operation is completed.

### Manual rewind and playback of incoming messages:

Rewind the tape to 010. Turn the selector switch to PLAYBACK. Adjust the playback volume to the desired level and listen to the recorded messages. The messages can be played back as often as desired. The tape can be stored for future reference or erased for re-use to record more messages.



## RATES

Notes:

Installation charge . . . . .

Monthly charge . . . . .

Other charges . . . . .

## SALES STRATEGY

Many applications for the Model RFP can be found in practically every operating telephone company area. Check the yellow pages of the telephone directory to build a list of prospects for this valuable service.

The following three-point sales plan will boost sales and lead to many profitable installations for the telephone company.

1. Determine if the customer has an actual profitable use for this service.
2. Make sure the unit is installed correctly. Check the installation environment. Be sure nothing will interfere with the operation of the machine.
3. Make sure the customer knows how to operate the unit properly. Demonstrate the operation of the remote play feature. Stress correct recording technique and the importance of outgoing message content.

## REFERENCE PUBLICATIONS

### Sales Aids:

- C-1045 Model RFP Electronic Secretary Telephone Answering Set.

### Technical:

- TB-440-753 -- Electronic Secretary Model RFP. Installation, Operation, and Maintenance.
- TB-997-763 -- Electronic Secretary Model RFP. Maintenance Drawings and Replacement Parts.

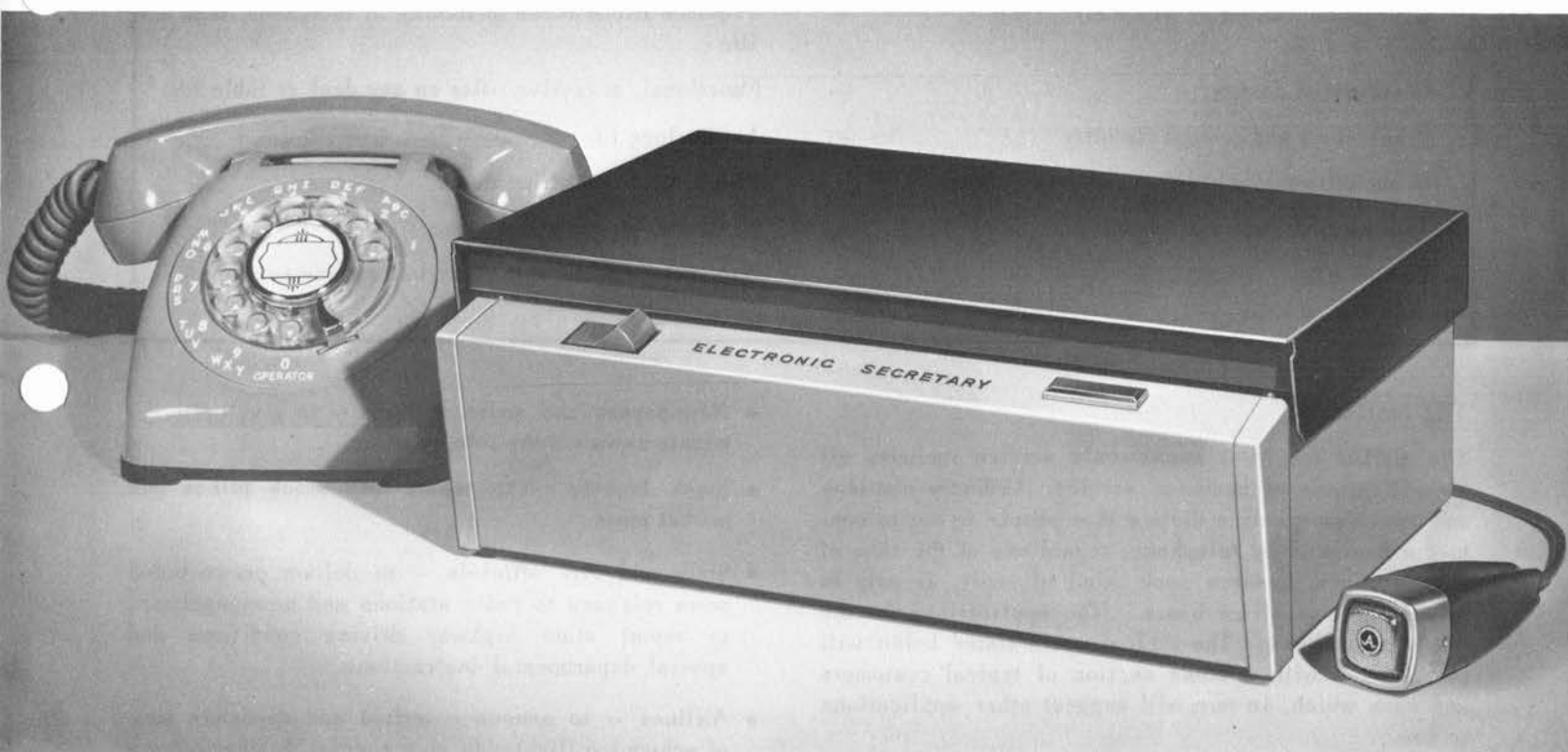
### Other:

- Catalog 11,000. Section L.

# COMMUNICATIONS SERVICE GUIDE

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## ANSWER-ONLY AUTOMATIC TELEPHONE ANSWERING UNIT



### Model AO-3 Answer-Only Electronic Secretary®

#### DESCRIPTION

The Model AO-3 Electronic Secretary is an answer-only telephone answering device designed for customers who want the advantage of answering incoming calls automatically but who do not need to record incoming messages. This unit answers the phone and delivers a recorded message of up to five minutes in the user's own voice. Messages can be changed easily, at any time, with the high-quality dynamic microphone furnished

with the unit.

The Standard Model AO-3 has a 1 minute tape cartridge, however, cartridges from 30 seconds to 5 minutes in length are available.

SIZE: 4-3/4" high, 13" wide, 7-1/2" deep.

WEIGHT: 20 pounds.

COLOR: Two-tone beige and gray.

AUTOMATIC ELECTRIC COMPANY

## FEATURES AND BENEFITS

<u>Features</u>		<u>Benefits</u>
Answers telephone	—	Delivers informative, advertising, or inspirational message
Automatic operation	—	Transmits message automatically to calling party
Different cycle tapes available for messages of from 30 seconds to 5 minutes	—	Customer can use announcement of just sufficient time for particular announcement; thus unit will be available to answer more calls
Output easily reaches 100 milliwatts	—	Sufficient output for 20 bridging lines for group announcement applications
Cycling controlled by photocell	—	Provides friction-free switching ... increases tape life
Coordinated design	—	Functional, attractive --fits on any desk or table top
Transistors and printed circuitry	—	Assure long life
Beautifully textured beige and gray cabinet	—	Blends with any office decor
Two wires to telephone block	—	Fast, convenient installation
Compatible	—	Does not interfere with normal telephone usage

### THE MARKET

The market for AO-3 answer-only service includes all classifications of business service. Ordinary courtesy and business practice dictate that people trying to contact a business by telephone, regardless of the time of day or night, deserve some kind of reply, if only to inform them of office hours. The applications for the AO-3 are endless. The typical users listed below will provide you with a cross section of typical customers and uses which, in turn, will suggest other applications to you.

Answer-only service is designed for business customers who do not need their incoming messages recorded. Logical candidates for answer-only service are:

- Theatre owners -- to announce the present features and tell of coming attractions.
- Supermarkets -- to advertise features of the day and to suggest new menus.
- Churches -- to give prayers and inspirational messages.
- Weather stations -- to report highs, lows, and weather predictions.
- Sporting goods stores -- to give latest scores in seasonal sports.
- Newspapers and radio stations -- to give up-to-the minute news via the telephone.
- Stock brokers -- to report late stock prices and market news.
- State and city officials -- to deliver pre-recorded news releases to radio stations and newspapermen, to report state highway driving conditions and special departmental instructions.
- Airlines -- to announce arrival and departure time of scheduled flights; to give special weather reports for pilots.
- Automobile dealers -- to advertise daily used car specials; to announce special sales events.
- Service and utility companies -- to refer callers to someone in event of an emergency after hours.
- Doctors -- to give office hours -- to refer patients to another number where the doctor, or another doctor, can be reached in an emergency.
- Service stations -- to advertise seasonal service specials; to announce special sales events.

These examples should not be thought of as restrictive. The ease and speed of changing the announcement has opened new doors for answer-only sets.

## LIMITATIONS

The AO-3 does not record any messages from calling parties. It is designed only to deliver messages to telephone callers.

## CUSTOMER MUST SUPPLY

The customer must supply a source for 115 a.c. power within reach of the unit's 8-foot power cord. The customer must also provide a desk or table sufficiently strong and stable to accommodate the machine, which weighs only 20 pounds. The machine should be located in an area where ventilation is not restricted.

## HOW IT OPERATES

### Recording announcement message:

Plug microphone into jack, depress ON side of power switch and rotate selector switch to DICTATE. Depress the START button until the DICTATE lamp lights and begin dictating the message in a normal tone of voice, holding the microphone about two inches in front of the lips. The message must be completed before the DICTATE lamp is extinguished. Otherwise, the message must be shortened and re-dictated. The preceding message is automatically erased as a new message is dictated.

### Checking announcement message:

Rotate selector switch to CHECK, hold microphone to the ear and press START button until message is heard. Remove microphone from jack if the message is satisfactory.

### Setting for automatic answer:

Rotate the selector switch to AUTO ANSWER, close the cover and press the power switch to the ON position. The lighted AUTO ANSWER light indicates that the Model AO-3 is ready to answer calls.

### Length of Message:

A subscriber should tailor the announcement message to the record interval provided by the announcement cartridge being used, otherwise the telephone line will be tied up needlessly. This factor is of special importance when the application is of the heavy-duty type. Assume, for example, the unit is used to provide airport weather reports that may vary from 30 seconds to a maximum of 2 minutes. If a 2-minute cartridge is used for a 30-second announcement, the unit and the incoming line would still be tied up for 2 minutes: 30 seconds for the message and 90 seconds

of dead time while the cartridge completes the 2-minute cycle.

The fixed cycle limitation can be matched to the length of the announcement by the subscriber having on hand several cartridges with different record intervals. Thus, the airport weather forecast could be put on the appropriate cartridge -- 30 seconds, 1 minute, or 2 minutes -- depending on the length of the forecast. For other applications, cartridges providing up to 5 minutes of record time are available. Cartridges are easy to change. Once shown, a subscriber would have no difficulty in this respect.

## RATES

Installation charge . . . . .

Monthly rate. . . . .

Other charges. . . . .

## SALES STRATEGY

The model AO-3 answer-only unit must be properly sold, properly installed, and properly used to fully satisfy a customer's specific communications needs. The following three-point sales plan will help build sales, customer satisfaction, and profitable installations:

1. Determine if the potential customer has an actual, profitable use for this service.
2. Make sure the unit is properly installed. Check the installation environment. Be sure the customer has the proper tape cartridge length. Supply the customer with tapes of varying recording time lengths if he delivers messages of varying length.
3. Be sure the customer knows how to operate the unit properly. Emphasize the importance of proper recording technique.

## REFERENCE PUBLICATIONS

### Technical:

- TB-440-751 --Model AO-3 Operation and Field Maintenance.
- TB-440-761 --Model AO-3 Plant Maintenance.

### Sales Aids:

- ES-117 -- Electronic Secretary Model AO-3.



NOTES:

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## MODEL MR-2 MONITOR-RECORDER



### Model MR-2 Monitor-Recorder with microphone.

#### DESCRIPTION

The Model MR-2 Monitor-Recorder is a spealized heavy duty tape recorder. It enables the user to automatically record both sides of any incoming or outgoing telephone conversation. In addition, the Model MR-2 can be used independently from the telephone as a conventional tape recorder. The machine has a two-hour tape recording capacity and can be used with any type telephone. A 15-second beep tone is included in the machine design to conform to FCC regulations.

This machine makes a permanent record of both sides of a telephone conversation. In a large business office an applique circuit can be provided at the switchboard for the Model MR-2. This enables the operator to connect

the Monitor-Recorder to any one of the inside stations as desired.

The Model MR-2 is 8" high, 17" wide and 12-3/4" deep. The unit is grey with a beige lid and weighs 53 pounds.

A foot control and headset are available for transcribing a recorded telephone conversation.

The Model MR-2 uses lubricated computer-type tape. Transistorized circuits and dynamic braking assure long life and trouble-free performance. A reserve power supply prevents tape spillage in the event of a power failure. Previous recordings are automatically erased as new recordings are made. One two-hour tape is supplied with each MR-2 machine. Additional tapes are available.

## FEATURES AND BENEFITS

<u>Features</u>		<u>Benefits</u>
Record telephone conversations.	—	Keep accurate record of calls, eliminates confusion and misunderstandings.
Taped recordings.	—	Easily stored for future reference.
Compatability.	—	Does not interfere with normal use of telephone.
Built-in electronic beep tone.	—	Complies with FCC regulation.
Microphone-equipped.	—	Can be used as a standard tape recorder.
Headset and foot control jacks.	—	Hands-free transcribing.
3" x 4" PM speaker.	—	For high quality playback listening.
Completely transistorized.	—	For low power consumption -- instant record and playback.
Push-button controls.	—	Easy operation.
Adjustable elapsed time indicator.	—	Visual indication of recording time.
Fast forward and rewind.	—	Speed in listening or transcribing.
Dynamic braking.	—	Smooth operation.
High speed computer tape.	—	Long life usage.
Fail safe mechanism.	—	Prevents tape spillage.

## THE MARKET

The Model MR-2 Monitor-Recorder is designed for customers who want to record both sides of a telephone conversation. This unit makes a permanent record of important calls. Businessmen in any field use the MR-2 to record calls that have legal implications, customer orders, salesmen's reports, detailed information, and similar calls. The following applications are typical of the many ways the MR-2 can be used:

- Druggists -- to record prescriptions telephoned by doctors.
- Business customers -- to record calls that have legal implications.
- Radio stations -- to entertain listeners with telephone interviews.
- Telephone companies -- to record operators, business office service representatives and similar customer contact people.
- Consulting engineers -- to record long, detailed technical information.
- Manufacturers and wholesalers -- to record orders, technical information and salesmen's reports.
- Police department -- to record officers' reports over the telephone.

## CONSIDERATIONS

The Model MR-2 is a manually operated device and cannot be used to accept calls automatically. This unit does not deliver a message to the calling or called party other than the 15-second beep tone furnished in accordance with FCC regulations.

The recording capacity of a reel of tape is two hours. The unit is not voice controlled and will record continuously, once turned on, even though there may be silent periods in the conversation.

## CUSTOMER MUST SUPPLY

The customer must supply a source of 115 volt a.c. power within reach of the 8-foot power cord furnished with the unit. The customer must also provide a desk or table that is sturdy enough to support the machine which weighs 53 pounds. The location selected should provide ample ventilation for the machine.

## HOW IT OPERATES

The MR-2 Monitor-Recorder is connected in series with the telephone instrument or in applique circuit that places the recorder in series with the line. The MR-2 can (a) start recording immediately when the telephone instrument handset is lifted (b) be started manually by depressing a button, and (c) be turned off completely.

When the MR-2 is recording the caller hears a beep tone every 15 seconds and both sides of the conversation are recorded.

Hanging up the telephone at the end of a conversation automatically restores the MR-2 to the standby condition. The user can rewind the tape and play back or transcribe the recorded information at any convenient time. A foot control is available as an accessory to make playing back or transcribing a hands-free operation.

Previously recorded conversations are erased automatically when a used tape is reused. The user may also erase a tape without recording a new conversation.

The MR-2 can also be used as a standard tape recorder. To use the recorder for this purpose the user plugs in the microphone and operates two switches. The recorder

should be connected to the telephone line with a plug and jack if the unit will be moved to various locations when being used as a standard tape recorder.

## RATES

Installation charge . . . . .

Monthly rental . . . . .

Other charges . . . . .

## SALES STRATEGY

The MR-2 Monitor-Recorder is ideally suited for customers who have need to record both sides of a telephone conversation.

In many instances more than one Monitor-Recorder will be required to satisfy the needs of larger customers. The following three-point sales plan will help build sales, customer satisfaction, and profitable installations:

1. Determine if the potential customer has an actual need for a Monitor-Recorder.
2. Make sure the unit is properly installed in a convenient location.
3. Be sure the customer knows how to operate the unit.

## REFERENCE PUBLICATIONS

Sales aids:

- C-1028 -- Model MR-2 Monitor-Recorder

Technical:

- TB-478-755 -- Model MR-2 Electronic Secretary®  
Installation, Operation, and Maintenance
- TB-997-765 -- Model MR-2 Electronic Secretary®  
Maintenance Drawings

Other:

- Catalog 11,000, Section L



## NOTES

# COMMUNICATIONS SERVICE GUIDE

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## ELECTRONIC SENTRY® MODEL 2 Automatic Warning Unit



Electronic Sentry with microphone and dial used to record the report message.

### DESCRIPTION

The Electronic Sentry is a transistorized automatic warning unit that can be connected to a telephone line. This unit delivers a tape recorded telephone warning to a responsible person whenever a hazardous or alarm condition occurs, such as a fire, burglary, temperature or pressure change, equipment malfunction, etc. It provides inexpensive 24-hour service.

The unit is activated by a primary detection device such as a pressure gauge, water level indicator, thermostat, photo-cell, fire detector, or a similar device when a hazardous condition occurs, or approaches unsafe limits.

When activated by the detection device, the Electronic



Electronic Sentry with cover locked to prevent tampering by unauthorized persons.

Sentry automatically seizes the telephone line. A predetermined telephone number is dialed and the warning message is delivered to the answering party.

The warning message is repeated for the balance of the cycle. At the end of the first call the Electronic Sentry will release the telephone line. The unit is equipped with an interval timer which enables the unit to re-dial the telephone number and deliver the warning message at designated intervals. The desired interval can be pre-selected. The telephone number will be re-dialed and the message repeated until either the reported condition is corrected or the Electronic Sentry is turned off manually.

The standard tape cartridge supplied provides for a re-

corded message of 90 seconds. Any capacity recording tape from 60 seconds to 3 minutes is available. The predetermined telephone number and the warning message may be changed at any time by using the plug-in microphone and dial associated with the unit. The dial and microphone can be locked in the cabinet when the unit is in use to prevent unauthorized persons tampering with the number or message. The locked lid also prevents

unauthorized use of the machine and protects the tape from damage.

The overall dimensions of the unit are 8-7/32" high, 13-1/8" wide and 8-1/4" deep. The housing is beige and the lid and front panel are gray. It weighs 29-3/4 pounds.

## FEATURES AND BENEFITS

Features		Benefits
Provides 24 hour a day notification of hazardous conditions.	—	Add protection at low cost. May reduce insurance rates.
Quality engineering.	—	Long life and dependability.
Temperature compensated.	—	Works under extreme temperature conditions (+20° to +135° F).
Operates on sustained closure (sustained open optional).	—	Assures positive signal from primary detection.
Test button.	—	Permits periodic checks of Sentry operation.
Transistorized construction.	—	Instant reporting and recording -- low power consumption.
Rugged tape mechanism.	—	Insures reliable performance.
Magnetic recording tape cartridge.	—	Warning messages and called numbers can be quickly and easily changed.
Interval timer.	—	Warning call placed at selected, predetermined intervals.
Notification by telephone.	—	Can be used on existing telephone lines or special lines.
Dial and microphone locked in cabinet.	—	Unauthorized persons cannot tamper with the number or message.
Attractive styling.	—	Looks well on customer premises.
Auxiliary power pack (optional).	—	Unit will operate should main power fail.
Will call more than one telephone number (optional).	—	More than one person can be notified of hazard.

## MARKET

The market for the Electronic Sentry Model 2 includes practically every industrial, commercial, public utility, and government customer served by the telephone company. This unit can respond to a signal from any primary

control device such as a thermostat, pressure control, water level indicator, photo-cell or any control circuit capable of closing a switching circuit. The unit can call any telephone number and deliver any message, that the customer may desire.

The following applications are typical of the many locations where this versatile unit may be sold:

- Stores, warehouses, commercial establishments -- to transmit immediate reports of forcible entry.
- Utilities, city water works, pumping stations -- to send immediate reports of rising water or possible flood damage.
- Chicken hatcheries, frozen food lockers, dairies, greenhouses -- to send warnings of temperature changes.
- Public institutions, pumping stations, water reservoirs -- to report changes in water or steam pressure.
- Refineries, bulk oil stations, central heating plants, commercial and industrial establishments -- to telephone fire reports and give exact location of the fire.
- Telephone companies -- to switch unattended exchange fuse, test and power alarms to a nearby serviceman.
- Schools, museums, churches and public buildings -- to report various forms of vandalism while the activity may still be in progress.

## CONSIDERATIONS

The Electronic Sentry is strictly a reporting device and must be activated by an external primary sensing device. At any given time the unit is capable of delivering only one pre-recorded message. However, the unit could be activated by any one of a number of primary sensing devices. Individual Electronic Sentry units should be provided when continuous monitoring of more than one hazard or condition is required. For example, three Electronic Sentry units should be provided if fire, temperature, or pressure monitoring, with individual reporting is required on a continuous basis.

The Electronic Sentry cannot record incoming messages. Also, the unit will not accept any signals or instructions over the telephone line.

## CUSTOMER MUST SUPPLY

The customer must supply a 115 volt a.c. outlet within reach of the 8-foot power cord furnished with the unit. A telephone line must be provided for the unit. The customer must also furnish a shelf, desk, table or similar suitable space to accommodate the unit. A location not readily accessible to unauthorized persons is recommended.

## HOW IT OPERATES

### Recording telephone number and message:

Plug the dial into the DIAL jack and plug the microphone into the MICROPHONE jack. Turn the selector switch to DIAL-DICTATE and momentarily depress the START button. When the DIAL lamp lights, dial the predetermined telephone number as if originating a normal telephone call. When the DICTATE lamp lights, dictate the warning message into the microphone and repeat the warning message until the DICTATE lamp is extinguished.

To check the warning message, turn the selector switch to CHECK, press the START button and listen in the microphone to hear the recorded dial pulses and the warning message. Remove dial and microphone.

### Placing Electronic Sentry in operation:

(The input leads from the primary detector device are assumed to be properly connected to the Electronic Sentry.)

Turn the selector switch to AUTOMATIC. Manually operate the activating circuit at the primary detection device. Observe the operation of the Electronic Sentry. Check with the called telephone number to determine if the recorded message was received satisfactorily. Check to determine if the unit repeats the call at the pre-selected interval.

The operation of the Electronic Sentry can be checked at intervals without disturbing the AUTOMATIC setting of the selector switch, by momentarily depressing the TEST button. This tests the Electronic Sentry unit only, but does not check the activating circuit from the primary detection unit.

## RATES

Installation charge . . . . .

Monthly rental . . . . .

Other charges . . . . .

## SALES STRATEGY

The Electronic Sentry offers a valuable service for practically every commercial, industrial or government customer of the telephone company. Applications for this unit are virtually unlimited.

The unit can be effectively demonstrated on the customer's premises; at public relations gatherings sponsored by the telephone company, and at sales demonstration locations maintained by the telephone company.



This three-point sales plan will boost sales and will lead to many profitable installations for the customer and the telephone company:

1. Make sure the customer has an actual use for the service.
2. Make sure the unit is installed correctly. Be sure the primary detection device is properly connected to the unit. Make sure nothing will interfere with the operation of the machine.
3. Be sure the customer knows how to operate the unit properly. Review the procedure for changing the predetermined telephone number and warning report recording.

NOTES:

## REFERENCE PUBLICATIONS

### Sales Aids:

C-1044-A Electronic Sentry Model 2 Automatic Warning Unit.

### Technical:

TB-440-754 Electronic Sentry Installation, Operation, and Maintenance.

TB-440-764 Electronic Sentry Model 2 Maintenance.

### Other:

Catalog 11,000, Section L, Recorders and Announcers.

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## CORDLESS PBX SWITCHBOARDS



### DESCRIPTION

The 12B and 20B Cordless PBX switchboards, designed specifically for small businesses and motels, are capable of serving a maximum of 12 and 20 lines, respectively. They operate at 24 (or 48) volts with a common battery central office. Both talking battery and ringing current may be supplied either locally or over central office leads.

The 12B is equipped with 5 city trunks, 5 conversation channels, and 12 station lines. The 20B is equipped with 5 city trunks, 5 conversation channels, and 20 station lines.

The 12B and 20B PBX's use standard two-conductor telephone instruments as station apparatus, and are arranged for local manual service and for connection to either automatic (dial) or manual central offices. These PBX's can accommodate special equipment such as key systems, speaker phones, and key phones.

The Cordless PBX switchboard is assembled in an attractive neutral grey case 16" wide, 16 1/2" deep, and 7 1/2" high. The switchboard control panel slopes toward the attendant to make all lamps clearly visible, and place

all keys within easy reach of the attendant. Screw-type terminal strips are conveniently placed along both sides of the chassis for easy cable connections.

The case may be lifted off to provide easy access to the equipment within. Keys and lamps are mounted on a hinged metal frame to provide access to the wiring and to apparatus in the base. Relays are mounted on a hinged base for easy access to the wiring. All components are readily accessible for maintenance. The switchboard may be placed on a desk or table without being fastened.

A grey Type 80 telephone (less ringer) is used with the 12B or 20B as the attendant's telephone. The color of this telephone compliments the cordless switchboard.

### OPTIONAL

For local power, a 24-volt d-c power unit with 30-cycle ringing is available. Also available are 24 volt, 1-ampere battery chargers; 12-cell 24-volt 8-ampere/hour batteries; and sub-cycle (20 cycle) ringing supplies.

AUTOMATIC ELECTRIC COMPANY

An auxiliary 6-key telephone may be used by the attendant to answer up to five incoming trunk calls when all conversation channels are busy.

Other equipment which may be added includes 2-way ringdown tie-line trunks (with standard housing) for magneto line or trunk service; 2-way ringdown tie-line trunks for idle line termination on carrier or voice repeater circuits (with standard housing); hand generator with standard housing (standby, when required); trunk adapter for "kick coil" operation into a magneto switchboard (loop limits 1500 ohms) with standard housing (for five circuits); central office trunk adapter for 2-way ringdown tie-lines with automatic "ringoff" for either rack or wall mounting; and modification material to provide audible signal if station lamp is "open."

## FEATURES

### Standard

1. Local station-to-station calls are made manually, through the attendant.
2. The 12B and 20B do not require special station apparatus as they are designed for use with standard two-conductor telephones.
3. Attendant may be recalled by hookswitch flash.
4. Night connection arrangements, whereby incoming trunk calls ring the connected stations as though they were on a central office line.
5. Outgoing calls may be made from any station on a night connection.
6. The attendant can connect more than one PBX station to an incoming trunk for a conference call, or connect several PBX stations together on an inside call.

### Optional

1. The PBX may be operated from either a 24-volt or 48-volt battery source, determined by battery feed pair loop resistance.
2. Station loop ranges may be extended through use of line relays.
3. Tie-line adapter adapts one of two pre-arranged lines for ringdown tie-line service for Cordless PBX with idle line termination on carrier or voice repeater circuits.
4. Two-way ringdown trunk adapter provides two-way ringdown signaling between PBX attendant and distant end for Cordless PBX city trunks. Optional wiring provides for automatic "ring-off" signaling.

5. Magneto CO trunk adapter uses repeat coil coupling to a magneto central office which is arranged with kick coils.
6. Where continuous ringing current is not available, a hand generator and buzzer in external housing may be installed.
7. Power relay for transferring to d-c battery supply if a-c power fails.
8. Auxiliary trunk answering. If desired, a six-key multi-line instrument such as the Automatic Electric Type 86 telephone may be used for the attendant to answer an incoming trunk call when all five conversation channels on the PBX are in use. When a channel becomes idle, the attendant may extend the call in the usual manner. Re-operating the sixth key restores the instrument to the normal attendant's circuit.

## HOW IT OPERATES

### Station Operation

- Station-to-Station Local Calls -- lift handset. Attendant answers - give attendant number of desired inside station. Attendant will connect you. You may recall attendant by hookswitch flash.
- Call to Manual Central Office -- lift handset and request trunk connection to manual central office. The attendant may pass the number to the distant operator and retire from the call, or disconnect immediately and allow you to talk to the distant operator, who will complete your call.
- Call to Dial Office -- PBX stations without dials must call the attendant who will extend the call. PBX stations with dial equipped telephones lift handset, request trunk, wait for dial tone, then dial desired number. If you are permitted to make several successive outgoing calls, depress hookswitch to disconnect from one call, then begin dialing another if desired.
- Call to PBX Attendant -- lift handset. Attendant will answer.

### Switchboard Operation

The attendant can perform all of the following functions with the aid of the compact cordless switchboard supplied:

- Answer Incoming Trunk Calls
- Hold Incoming Trunk Calls
- Extend Incoming Calls to Local Stations
- Transfer Trunk Calls
- Limit Dial Station Trunk Calls
- Place Trunk Calls for Local Stations
- Establish Night Service Connections
- Establish Conference Calls

## FEATURES AND BENEFITS

Following are some general benefits to users of a Cordless PBX. These should be translated into the specific benefits each prospect can expect from his installation.

### Features

Compact cordless turret permits swift handling of incoming and internal calls.

Night connection eliminates need for an operator on duty 24 hours.

Operator controls all telephone traffic.

### Additional Features

Uses standard two conductor station instruments

Attractive compact turret

Auxiliary Trunk Answering

Color coding of keys

PVC wiring

### Benefits

A) Saves money--operator spends less time on switchboard and can perform other duties.

B) Builds better customer relations--good impression of business is formed thru fast and proper handling of calls by attendant.

C) Saves valuable office space--turret can be placed on desk or counter.

D) Saves employee time--internal calls are handled more quickly.

A) Saves money--full time attendant is not necessary.

B) More convenience--provides 24 hour telephone service even if the board is shut down at night.

A) Saves money--no unauthorized calls are made.

B) Better customer relations--less chance of getting "cut-off" or being transferred to the wrong station.

C) Better employee relations--no confusion or irritation because a skilled operator sets up conferences and makes all transfers.

### Additional Benefits

--No extra expense for special telephones, and no waiting for non-stock instruments to be manufactured.

--No bigger than a typewriter and it blends in just as well with office decor.

--Extends capacity of the board.

--For ease of operation.

--Longer life and less shutdowns due to repair.

## THE MARKET

The market for the Cordless PBX includes any customer who requires 12 or 20 operator controlled lines with 5 trunks. They are designed as "starter" switchboard systems for small customers who have outgrown a key system but do not need the larger L55 PBX or more sophisticated 25M PABX.

The 12B or 20B PBX should be sold to small customers who:

- receive many calls
- do not need intercom
- do not make many outgoing calls
- do not have much room for equipment
- do not want to pay the premium price for a PABX

Customers such as:

- law offices
- insurance offices
- automobile agencies
- small mercantile establishments
- small motels
- resorts

and many others will make good customers for a Cordless PBX.

An analysis of the communications needs by the customers in your area will give you a good idea of the market that exists for this board and any others.

## SALES STRATEGY

Any good sales program consists of thorough preparation, a good presentation and combined follow-through. The following are some pointers for a successful sale of a Cordless PBX.

### Preparation

As with all business communication installations a good deal of revenue can be expected from a Cordless PBX sale. The 12B and 20B however, are small boards and can be sold successfully with a minimum of help from the technical departments if the salesman understands the features and limitations of these boards. This makes it even more profitable, especially if an aggressive marketing plan is followed.

Your first step in a sale is to find someone to sell to. The 12B or 20B prospect can be found either in your (a) new customers, or among (b) customers who are outgrowing key systems, or with (c) customers who want a more modern small system. New customers are easy to ferret out, just keep an eye on the new buildings that are going up and on the local newspapers for new businesses moving in.

The other two types of prospects can be found on your market cards and by reading copies of past presentations. These will give you a basic understanding of the prospect's present communications situation.



The next step is to contact the prospects to see if they are in need of a Cordless PBX. This can be accomplished by a letter or telephone call, but a personal visit is much more effective.

By use of a "Communications Usage and Proposal Survey" form, or something similar, determine a prospect's present situation such as his methods of operation, what services he now has, future growth expectations and some technical data.

### Presentation

The climax of all the work done so far is the actual presentation to the customer. With a firm base of preparation underfoot it will be easy to make your presentation convincing and worthwhile. It is recommended that the oral presentation be supplemented by a written proposal including all the sales brochures available and any other literature which the customer would be interested in. These can be referred to during the presentation and will give the customer something in writing to refer to if he wants to confirm some details afterward.

### Follow-Up

After the sale the responsibility of the sales department does not end. Service to the customer is your responsibility and it is up to you to make sure the installation is completed on time and his people are properly trained in the use of their new PBX. In this way you will leave the door open for future sales to this customer and be able to refer to him as a satisfied user. A satisfied customer is the gauge of a successful sale.

## CONSIDERATIONS (Limitations)

### General

The 12B and 20B are designed for small businesses and motels, and are best utilized when the station users are given as much freedom as possible when using the telephone. The business customer or motel staff should be familiar with the switchboard and taught how to operate it properly in order for them to be completely satisfied. Check their needs, being sure they require a system where the attendant must answer incoming calls from the switchboard. They may be more satisfied with a 25M PABX which has a larger capacity and incoming calls can be answered from any station phone, (CSG 100.018) or by an L55 Expansible Cord Type PBX (CSG 100.017).

Select a PBX location for the 12B or 20B suitable to the customer, but avoiding locations where moisture, excessive dust, corrosive

fumes, or vibration may effect the operation of the equipment. If possible, select a location not subject to direct sunlight since lamp signals are not as discernible under this condition. Avoid locations on any bare metal surface or where the PBX is likely to be moved into contact with metal objects which might be grounded, such as steam pipes, water pipes, conduit, etc.

### Capacity

The 12B and 20B are non-expansible boards, so care must be taken when selling them that the customer will not outgrow their capacity in the near future. The 12B is designed for customers with a need of up to 12 station lines and 5 city trunks. The 20B is designed for customers with a need of up to 20 station lines and 5 city trunks.

### Availability

The 12B and 20B are stock switchboards and should be available for shipment within 30 days. However, before making any commitments, it would be wise to check on the present delivery status of the board.

## CUSTOMER MUST SUPPLY

The customer must supply an individually fused 115-volt a-c outlet for the power supply.

Station wiring and cable can be concealed if the customer provides conduit to the switchboard location or terminal facilities.

A dust-free and well-ventilated room should be available in which to locate the PBX switchboard. The switchboard takes up a space of approximately 16" x 16 1/2" on a desk or table.

## RATES

Installation Charges .....

Monthly Charges

Cordless Switchboard .....

Optional features .....

## REFERENCE PUBLICATIONS

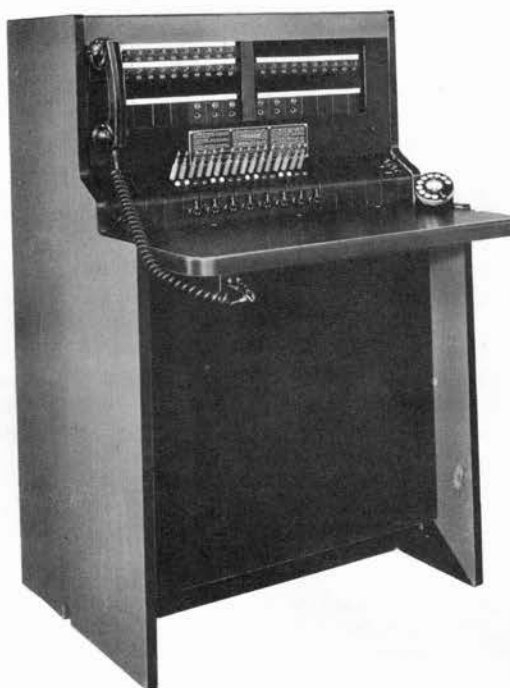
### Sales Aids:

- C-1058 Compact Cordless Switchboard
- CI 504-112 Attendant's Instructions for Leich 20B Cordless PBX

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## L55 CORD TYPE PBX



### DESCRIPTION

The L55 is an attractive, efficient Private Branch Exchange (PBX) designed for customers whose requirements can best be met with an operator-controlled switchboard. The L55 comes in three models: the A3 for up to 60 lines, the B4 for up to 120 lines and the 200 for up to 200 lines. All three models have a capacity of 14 central office trunks and 15 cord circuits. The L55 operates at 24 volts and has jack-in components for easy expansion and replacement.

This cord type PBX comes equipped with one of three standard cabinets made of formica-like Pionite in Brown TV Mahogany, Webb Walnut or Blonde Ash. A cabinet of unfinished Bay Poplar plywood may also be provided if the customer wishes to finish it himself. The Pionite finish is scratch-proof and mar-resistant, it remains neat for years and can be easily cleaned.

The unique keyboard arrangement on the L55 is located above the writing shelf and sloped for easy accessibility. The writing shelf is free of keys and cords, giving the operator an uncluttered space for taking notes or performing other duties.

All three models, A3, B4 and 200, stand 46" high and are 29 3/8" wide by 29 1/2" deep. The shelf is 30" from the floor. These dimensions provide a compact communications center which will compliment any office decor.

The L55 boards have limited expansibility with each model complimenting the next. The A3 can be expanded from 30 to 60 lines, while the B4 has a capacity of 40 to 120 lines and the 200 will handle 120 to 200 lines. Trunks and cord circuits are jacked in from the rear of the cabinet making repairs and additions quick and easy.

AUTOMATIC ELECTRIC COMPANY

## OPTIONAL

A second position can be added to all three L55 switchboards, thus, doubling the capabilities of any single model. Special 8-foot cords will be equipped on the two position board making it more versatile.

In addition, the L55 can be equipped with special trunks (tie, FX, E&M, etc.) and will handle such special services as paging adapters, message waiting units for motel installations, and dictating links.

## FEATURES

### Standard

1. Split key feature on the cabinet allows the operator to keep a calling party from hearing the call announced to the station extension.
2. Two-way supervision allows the attendant to permit an inside party to dial his own call or to make the call for him. He may be prevented from making subsequent calls if the operator so wishes.
3. An audible signal on the switchboard sounds when a call comes in. This allows the operator to direct her attention from the board and perform other duties. The buzzer can be turned off during peak periods.
4. Stations can be connected to originate and place trunk calls after business hours without the aid of an operator (cord night connections).
5. All three models are expansible in terms of lines, trunks and cord circuits; and, expansion is accomplished by jack-in circuits which reduce the time required for replacement or expansion.
6. Pionite finished wooden cabinets are scratch-proof and have long lasting beauty.
7. The unique L55 keyboard arrangement places the keys above the writing shelf area and they are sloped for easy accessibility.
8. An instruction plate is mounted permanently on the face of the switchboard to serve as a convenient reference aid for operators.
9. The L55 requires only standard two conductor station instruments.

## Optional

1. The L55 can be equipped with either a headset, or handset and mounting, depending on preference.
2. A dial and mounting can be provided for boards working into automatic exchanges.
3. A hand generator and mounting to provide ringing power during commercial power failure (requires 1 trunk position).
4. A second operator's jack may be added to provide operator training facilities.
5. The lamp signal buzzer can be controlled by a foot switch leaving the operator's hands free.
6. A second position can be added for particularly busy sites. This second position can include busy test on idle cords and monitoring with position and jack grouping.
7. Various types of tie lines can be provided to connect the PBX into other PBX's, PABX's or distant exchanges.
8. A conference circuit is available which permits a conference among five stations, four stations and one central office trunk, or three stations and two central office trunks. (Trunk capacity is reduced by two where conference is supplied).
9. Two position boards are equipped with 8-foot cord pairs permitting ease of operation from either position.
10. While the L55 requires only standard station apparatus, special equipment such as key systems, speakerphones and secretarial answering cabinets can also be used to enhance the usefulness of the board.
11. A paging adapter can be added to the L55 to connect it into a paging system. The adapter is controlled by a foot-switch which leaves the operator's hands free.
12. Message waiting can be added to the L55 when it is designated for hotel or motel use. Message waiting service tells a guest when a message is waiting for him at the switchboard by means of lighting a small lamp on his telephone.

## HOW IT OPERATES

### Station Operation

All calls -- the station user has to merely lift his handset for a direct connection with the switchboard operator. She can either make his calls for him or allow him to place his own outside calls.

### Switchboard Operation

The PBX operator is the most integral part of the L55. All callers and station users are dependent on her for quick and accurate placement of calls.

With the help of the L55, the operator may:

- ▶ Answer an incoming call.
- ▶ Extend a call to an extension.
- ▶ Split the trunk so that she can be heard only by the inside party.
- ▶ Transfer an incoming call to another PBX extension.
- ▶ Disconnect when a call is completed.
- ▶ Answer calls from extensions.
- ▶ Allow an extension to place his own outside call or place it for him.
- ▶ Complete extension-to-extension calls.
- ▶ Establish night service to predetermined extensions.
- ▶ Use audible or visual lamp supervisory aids.
- ▶ Set up conferences (Optional).
- ▶ Use tie trunks (Optional).
- ▶ Use message waiting cabinet (Optional).
- ▶ Operate buzzer footswitch (Optional).
- ▶ Use paging apparatus (Optional).

## CONSIDERATIONS (Limitations)

### General

The L55 is a modern manual switchboard designed for businesses, government agencies, institutions, hotels, motels, resorts, and other places of lodging requiring operator

supervision. Make sure prospect's needs would be best suited with an L55 rather than a PABX. He will be happier with the L55 if he and his people know how to get the most out of it and the operators are all competently trained in its operation.

It should be noted that it takes more time to place a call through a PBX than through a PABX, and manual service demands that an operator be in attendance at all times.

### Capacity

The L55 has a range of from 30 lines, 6 trunks and 8 cord circuits, to 200 lines, 14 trunks and 15 cord circuits. As mentioned before there are three models, the A3, B4 and 200.

The A3 is the smallest of the three models. It can handle 30, 40, 50 or 60 lines and like the other two models, has a trunk capacity of 14 and will hold up to 15 cord circuits. The basic model A3 comes equipped with a minimum of 6 trunks and 8 cord circuits.

The B4 overlaps with the A3 because it has a minimum of 40 lines which can be expanded (in increments of 20) up to 120 lines. After 80 lines, special equipment is required to add more lines. The B4 has a minimum of 8 trunks and 10 cord circuits. The maximum capacity is 14 trunks and 15 cord circuits.

The 200 is the largest of the three models, capable of expanding from a minimum of 120 lines to a total of 200 lines (in increments of 20). Beyond that point a second position can be added making the total capacity 400 lines. Adding a second position also doubles the number of trunks and cord circuits which can be provided. Trunk and cord minimums on the 200 are the same as on the B4, namely 8 trunks and 10 cords, being expandable to 14 trunks and 15 cords as on the other two models.

Care should be taken when selling the L55 to take your customer's foreseeable future requirements into consideration. For example, if a prospect wants an L55 with 60 lines it would be best to suggest an L55-B4 which leaves room for expansion.

### Availability

The L55 is a stock board and, as such, is usually available for shipment from the factory within 30 days. Because some of the optional equipment may require additional engineering or some unforeseen reason might delay shipment, the delivery status should be checked before making a commitment to your customer.



## THE MARKET

The market for the L55 includes any customer that requires from 30 to 400 lines in a manual board. It is the perfect answer for a customer who has little need for intercom and places few outgoing calls such as:

- Insurance offices
- Government agencies
- Supermarkets
- Public utilities offices
- Hospitals
- Loan offices

The L55 should be sold to customers who:

- Receive many incoming calls.
- Want the added supervision of an operator controlled switchboard.
- Have a present and foreseeable need of 30 to 60, 40 to 120 or 120 to 200 lines with 6 to 14 trunks and 8 to 15 cords.
- Want an attractive cabinet to fit into their office decor.

## SALES STRATEGY

### Prepare For The Sales Call

What present facts do you know about the prospect's telephone usage? Learn all you can about his method of placing and answering calls. How many outgoing calls are placed? How many incoming calls are received? When are the peak periods, and how well is the prospect able to handle them with his present communications system?

### Get Him To Listen

Many prospects think they know what they need in the way of telephone equipment and services without realizing the benefits they can obtain with an L55. Be prepared to gain and maintain interest throughout the interview by citing the benefits prospect can expect and by pointing out the benefits other users are getting.

## Determining Sales Objective

Have specific recommendations that fit each customer. Relate the features of the L55 in terms of benefits to each specific customer. Target your sales efforts toward what you know a customer's situation to be.

## Make The Recommendation

Be prepared to prove the benefits of the L55. DEMONSTRATIONS are firsthand experiences and the strongest form of proof. Use the SUCCESS STORIES of other customers. Make your presentation easy to understand; the L55 has many good selling points but remember the prospect wants to know: WHAT'S IN IT FOR ME?

## Anticipate Objections

Consider the objections the prospect may bring up and be prepared to answer to his satisfaction.

### COST?

Build up the value of the L55 in terms of the benefits he will receive. In his eyes the benefits must outweigh the cost. Remind him that a communications system tailored to his needs will make more money than it will cost.

### COMPETITION?

When selling an operator controlled switchboard such as the L55 you will not have much competition from the other manufacturers of communications systems but remember that many salesmen are competing for this businessman's dollar. Competition is a man-to-man fight. The L55 gives you many salable features, but you must be able to explain them in terms of more benefits than your prospect can receive for a different expenditure of his money.

## Get Favorable Action

Your whole purpose in making a sales call is to GET AN ORDER. What is the simplest way to get an order? ASK FOR IT! If he hedges perhaps you should summarize the benefits he will receive.

## FEATURES AND BENEFITS

Following are some general benefits to users of an L55 PBX. These should be translated into the specific benefits each prospect can expect from his installation.

Features	Benefits
Attractive wooden cabinet blends in with any office decor. -	A) Provides a good impression of business office or motel/hotel office by showing off an attractive piece of functional furniture. B) Provides convenience because it can be placed anywhere in the office. 1) The L55 can double as a reception desk. 2) Sets off or blends in with special designs or ornaments in a modern office.
Operator controlled switchboard provides more supervision over telephone usage. -	A) Saves money--unauthorized calls cannot be made without the knowledge of the operator. B) Customers receive a good impression of business when all calls are handled by a courteous operator. C) Provides more control over telephone usage because all calls are placed through a common communications center.
A PBX is more economical in certain applications. -	A) Rates are less expensive than for a PABX. B) When there is little or no need for intercom a PBX will perform just as well as an automatic board. C) Perfect for offices where most calls are incoming.
Easily expansible in terms of lines, trunks and cords. -	A) Saves time--with jack-in cords, trunks and line circuits. Maintenance and expansion can be done much more quickly. B) Saves money--with the repairs and expansions done so quickly the L55 can be back in service sooner, providing money-making contact with customers.

Additional Features	Additional Benefits
Night service.	- Employees working overtime can have telephone service without an operator.
Pionite finished wooden cabinets.	- Scratch-proof and mar-resistant for years of attractive service.
Sloped keyboard arrangement.	- Makes it easier for the operator to receive and extend calls quickly.
Second operator's jack.	- To train new operators on the job.
Requires only standard station apparatus.	- Station instruments can be replaced from telephone company stock, eliminating the chance of a long wait for shipment from the manufacturer.
Free maintenance.	- Provides worry-free communications.

## CUSTOMER MUST SUPPLY

The customer must supply a 115 volt A.C. outlet for the ringing machine and power supply. If possible, an individual circuit is desirable to avoid power failures caused by external sources.

Another desirable advantage is conduit to conceal the wiring.

The L55 (all three models) require approximately 30 square inches of floor space. Thus the handsome, compact cabinet can be placed almost anywhere which is convenient. Space must also be provided for the ringing machine, which mounts on the wall.

## RATES

Installation .....

Monthly Rental .....

L55 Switchboard .....

A3 .....

B4 .....

200 .....

Station Apparatus .....

Optional Equipment.....

## REFERENCE PUBLICATIONS

### ● Sales Aid

C-1055 Operator Controlled PBX

C-1059 Attendant's Instructions for L55 PBX Switchboard

### ● Catalog

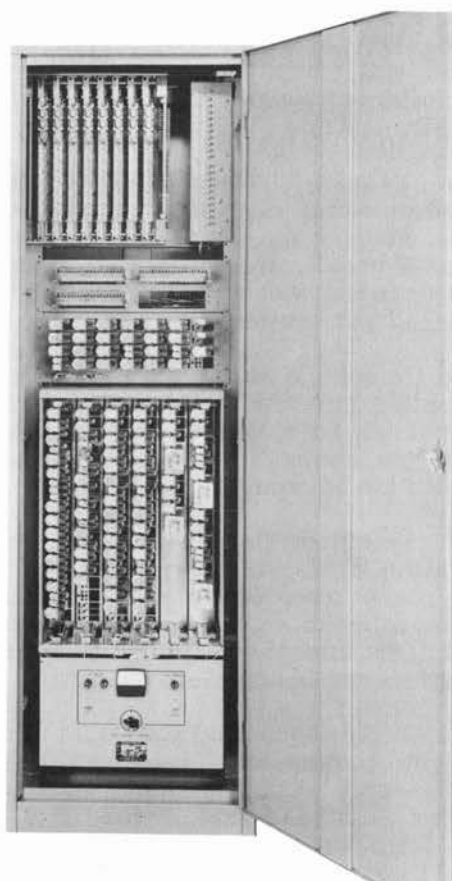
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## NOTES:

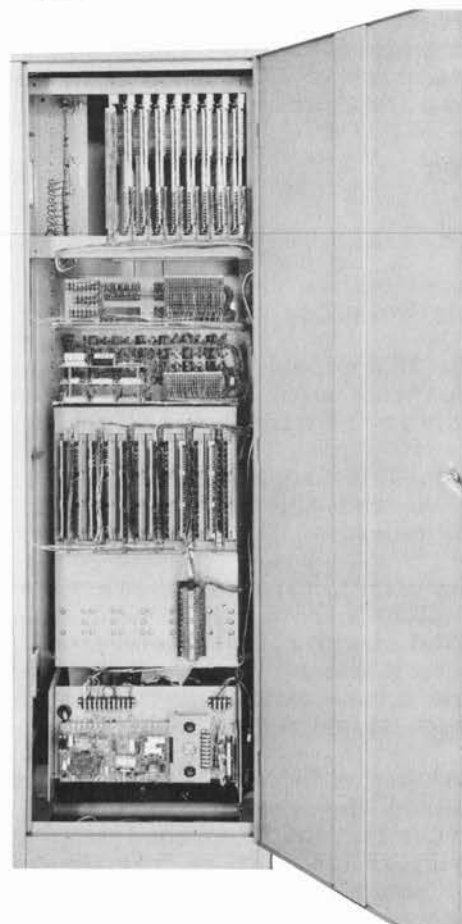
# COMMUNICATIONS SERVICE GUIDE

CSG  
100.018  
Issue 1

## TYPE 25M PABX



**25M PABX Front View**



**25M PABX Rear View**

### DESCRIPTION

The 25M, designed to provide modern telephone service for small motels, is a compact all-relay common control PABX capable of serving a maximum of 25 local lines. The 25M can be equipped with up to 24 or 25 lines for station use, depending on the number of operator trunks; 2 operator or information trunks; 2 link circuits (2-digit intercom dialing); 30 line circuits; and 4 city trunks. One line circuit is required for each two-way trunk circuit, to permit transfer of incoming calls to room stations. The 25M is equipped with two city

trunks and there is optional equipment available for two extra trunks, making it possible to then divide the trunks into two groups to provide access to different central offices or to distant PBX and PABX systems.

This PABX uses standard two-conductor telephone instruments as station apparatus and can accommodate special equipment such as key systems, speaker phones, and key telephones. The 25M uses two-digit local dialing with single digit access to special features.

The 25M switching equipment is completely enclosed in a metal cabinet 24" wide, 72"



high, and 15" deep. The switch gate is permanently mounted with access to the line bars from the left side of the bay. The right side of the bay may be placed against the wall. The cabinet can be mounted on a casted dolly (optional) to provide mobility and facilitate installation almost anywhere. All power (talking, ringing, and dial tone supply) is housed in the enclosed cabinet.

## OPTIONAL

For greater flexibility, a multi-line telephone with hold facilities is recommended for use by the attendant. The Type 86 telephone has hold facilities and provides for 5 lines. This permits the assignment of 1 (or 2) attendant's trunk lines and 4 (or 3) key-ended trunks.

## FEATURES

### Standard

1. Local station calls are made by dialing only two digits.
2. The 25M does not require special station apparatus as it is designed for use with standard two-conductor telephones.
3. Local links are held only on inside station calls, and dropped upon connection in other cases.
4. The dial "1" method allows station user to place a trunk call on hold, make consultation calls, and transfer trunk calls to other stations. A wiring option can provide a two-station one-trunk conference which is set up with dial "1" transfer.
5. The station loop limit is 1000 ohms, excluding the station instrument. This means that the telephones can be placed a considerable distance from the switching equipment depending on the size of wire used and transmission factors.
6. Stations may be divided into two different groups providing classes of restricted and non-restricted service.
7. Trunks may be split into two groups which permits access to different central offices and tie trunk groups.
8. Universal Night Answer permits answering incoming trunk calls from any station.
9. With power failure transfer, pre-determined stations, equipped with grounding pushbuttons, are connected directly to certain trunks in the event of commercial power failure.
10. Restricted Night Calling - station to station calling at night under control of externally mounted key.

## Optional

In cases where customer wishes all toll calls to be placed through the attendant, toll restrictors can be used. By a wiring option, individual stations may by-pass the toll restrictor.

## HOW IT OPERATES

### Station Operation

- Outgoing Toll Call--dial toll trunk access digit, separate trunk group, usually "8." The toll operator completes the call.
- Special Services--dial designated single digit.
- To Transfer Trunk Call to Another Station--dial digit "1," then number of the station to which the call is to be transferred. When the station answers, replace handset and the call will be transferred automatically.
- To Consult With Another Station While Holding A Trunk Call--dial "1" to place trunk on hold; dial desired station; dial "1" to return to outside call when consultation is completed.
- To Establish Conference With Another Station While On A Trunk Call--dial "1" to place trunk call on hold; dial desired station; with called station on line, dial "1" to add trunk party to three-way conference connection.
- To Answer Incoming Call With Universal Night Answer and Transfer (No Attendant)--dial assigned digit, usually "4," when audible signal is heard; call may be transferred as described above.

### Attendant's Telephone Operation

An attendant can perform all of the following functions with the aid of the multi-line telephone:

Answer Incoming Trunk Calls

Hold Incoming Trunk Calls

Extend Incoming Calls to Local Stations

Place Trunk Calls For Local Stations

Record and Control Toll Calls

Split to Extension and to Trunk

Transfer Trunk Call

## FEATURES AND BENEFITS

Following are some general benefits to users of a 25M PABX. These should be translated into the specific benefits each prospect can expect from his installation.

### Features

### Benefits

- |  |  |
|--|--|
| <p>Multi-line key telephone is used to answer calls for quick and easy handling.</p> <p>Direct Outward Dialing (DOD) allows station users to place their own calls privately and quickly.</p> <p>Motel features customize the 25M for small motels.</p> <p>Universal Night Answering adds convenience without expense.</p> | <p>— A) Saves money - less time is wasted being a switchboard attendant.</p> <p>B) Builds better customer relations - good impression of the business through fast and proper handling of calls.</p> <p>C) Saves valuable office space - no console or turrets to take up extra room.</p> <p>— A) Saves money - attendant is not tied up on outgoing calls and can get more done on other work.</p> <p>B) Better employee or guest relations - no delay, confusion or irritation.</p> <p>C) Provides greater privacy - calls are placed through impersonal automatic equipment.</p> <p>— A) Message waiting adds plus factor to service of motel which guests appreciate.</p> <p>B) Puts telephone service of a small motel on par with that of a large motel, without the large cost.</p> <p>— A) Saves money - an attendant need not be on duty 24 hours a day to provide 24-hour telephone service.</p> <p>B) Adds convenience - telephone lines remain open all the time, a motel feature that is appreciated by guests.</p> <p>C) Stops confusion and irritation - calls can be answered from anywhere and transferred without using the attendant telephone.</p> |
|--|--|

### Additional Features

### Additional Benefits

- |   |   |
|---|---|
| <p>Uses Standard Two-Wire Telephone</p> <p>Neat Appearing Compact Switching Equipment Cabinet</p> <p>Dial "1" method provides hold, transfer, consultation and conference calls without the aid of the attendant.</p> <p>An inside call can be made automatically from any station.</p> | <p>— The time and expense of getting special station equipment is not incurred.</p> <p>— Takes up very little space, can be placed anywhere and does not detract from the beauty of any office decor.</p> <p>— Adds this convenience to guests or employees without tying up the attendant.</p> <p>— A welcome addition to any business office or to motels where groups are staying.</p> |
|---|---|

## CONSIDERATIONS (Limitations)

### General

The 25M type system is of most value to a customer and operates at peak efficiency when the local station users are allowed to place their own outgoing trunk calls and perform other telephone operations without the aid of their attendant. Since many of these PABX's replace manual PBX systems, the customer must be informed and properly conditioned for this change in their method of operation. Check their needs and make sure they require this

type of service; some motels may be more satisfied with a 40M or 80M PABX, while larger places of lodging may require the expansible 300-6TM PABX.

### Capacity

The 25M is designed for customers with a need of up to 25 station lines and 4 central office trunks. This is not an expansible board, so 25 lines is the maximum. Thus, the future requirements of the installation must be carefully considered to make sure the 25M will not be rapidly outgrown.

## Availability

The 25M is a stock switchboard and should be available for shipment within 30 days. Current delivery should be ascertained before making commitments to customer.

## THE MARKET

The 25M is built specifically for small motels who want to offer large motel services with the least amount of bother and cost.

Studies have shown that there are approximately 15,200 hotels and motels (3,000 are hotels) in independent telephone areas. Of these, 8,400 are small motels with from 10 to 25 rooms. According to the latest survey, 90% of these 8,400 do not offer telephone service at all. That means there are about 7,500 small motels in the independent areas that are in need of a 25M PABX. In a recent survey, 6.6% of these 7,500 stated they were planning on buying a switchboard in the near future. Even though small motels provide a large market for the 25M, it does not mean that this board should be excluded from all commercial applications. It has been found to work very well in stores, offices and plants that require the modern services of the 25M, but will not have need for a bigger board.

## SALES STRATEGY

A good marketing program consists of thorough preparation, a good presentation and combined follow through. The following are some pointers on a successful sales program for the 25M PABX.

### Preparation

The preparation provides the groundwork on which to base the rest of your program. Before ever making a sales call to sell the 25M, it is a good idea to know all you can about your potential prospect. Since 90% of the small motels do not have telephone service in the rooms, virtually every small motel in your area is a potential customer. However, small motels operate on a small margin of profit and cannot add every service that might seem to be a good thing. Your competitors in this case are the linen service people, the painters, carpenters, mortgage company and the Internal Revenue Service Department. In order for your prospect to become a PABX customer, it must be shown to him that spending his money for a 25M will make more money for him than spending his money for something else. It would be a good

idea to talk to this small businessman before making up a proposal, to find out what kind of communications services he needs and wants. Once you have gathered all the facts, bring them together with the help of a "Communications Usage and Proposal Survey" form or something similar.

### Presentation

It is recommended that a written proposal be prepared prior to making the actual presentation to the customer. This can be referred to during your presentation and can be left with the customer so he can confirm some of the more important facts in writing after you have left. Because of a thorough presentation, you are convinced that this prospect needs a 25M, but you have to convey your feelings to him. He is looking for something that will make more money for him and you should have the facts and figures handy to prove to him that the installation of a 25M will profit his business.

### Follow - Up

After the sale, make sure your customer is satisfied by getting the installation done on time and showing your customer how to operate his new switchboard. It is the responsibility of the Sales Department to make sure the customer is satisfied. A successful sale is gauged by the satisfaction of the customer.

## CUSTOMER MUST SUPPLY

The customer must supply an individually fused 115-volt a-c outlet convenient to the switching equipment bay.

Station wiring and cable can be concealed if the customer provides conduit to the equipment bay location.

A dust-free, well-ventilated equipment room or adequate space to house equipment must be furnished. If the 25M plus terminal facilities are to be housed in an equipment room, a space of approximately 4 feet x 6 feet with a clear ceiling height of 7 feet is recommended.

## RATES

Installation Charges .....

Monthly Charges

25M PABX Common Equipment .....

Stations.....

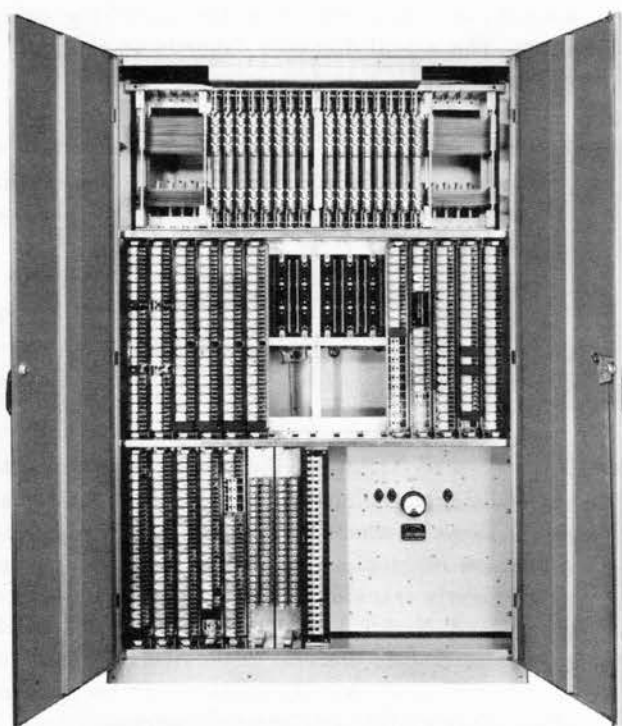
Optional Features.....



# COMMUNICATIONS SERVICE GUIDE

CSG  
100.019  
Issue 1

## 40B PABX SWITCHBOARD



**Type 40B PABX  
Switching Equipment**

### DESCRIPTION

The Type 40B is an all-relay, common control PABX which operates at 48 volts. The equipment is manufactured by the Genoa Branch (Leich) of Automatic Electric Company. This PABX can be equipped with a total of 6 local links, 10 central office trunks (city trunks), 2 attendant's information trunks, an attendant's local line, and 39 local station lines.

An easy to operate cordless turret, equipped with a jack-in handset (headset optional) is used by the attendant to extend incoming trunk calls to PABX stations. The turret has an attractive beige (standard), gray, or green polystyrene housing measuring 11" wide, 9" deep and



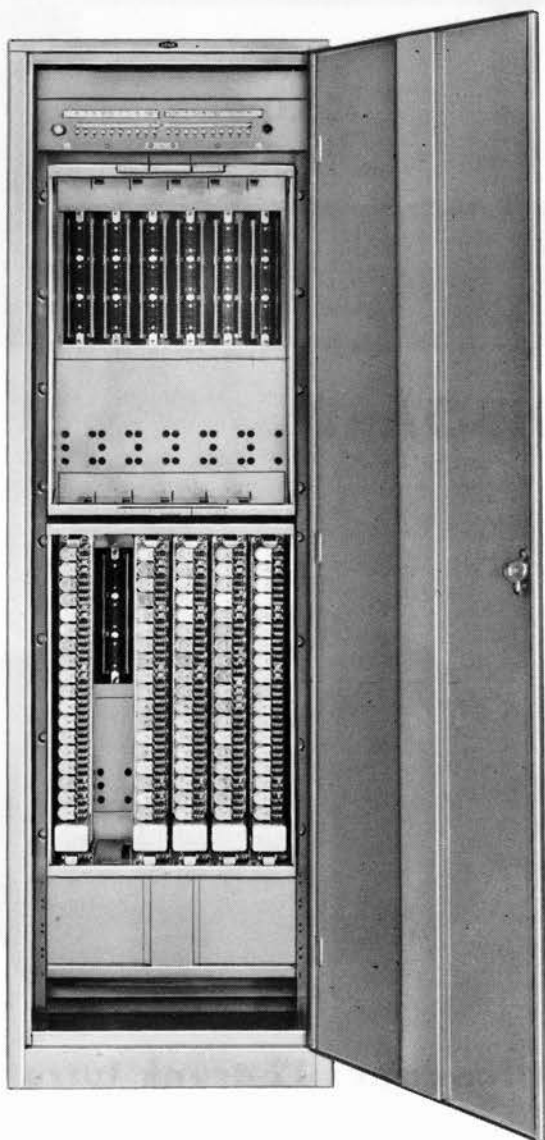
**Attendant's 12-trunk turret**

6" high. The Type 40B PABX can also be operated without an attendant's turret if incoming trunk traffic is light enough to permit this method of operation.

The Type 40B PABX uses standard two conductor dial telephones as station apparatus. Key telephones, speakerphones and similar special purpose instruments can also be used.

The PABX switching equipment is completely enclosed in a 48" wide, 72" high, 15" deep gray metal cabinet. The cabinet has two lift-off type hinged doors both front and rear for easy access to the equipment. The bay can be mounted on a caster assembly (optional) for mobility.





## OPTIONAL

A Busy Lamp Field with a capacity of 40 lamps can be added to the turret to indicate busy stations.

An Auxilliary Cabinet which measures 24" wide, 72" high, and 15" deep can be supplied to house additional equipment. This unit harmonizes with the switchboard bay and can also be furnished with casters for mobility.

## FEATURES

### STANDARD

- 1) Two digit local station dialing.
- 2) The 40B does not require special station apparatus as it is designed for use with standard two conductor telephones.

- 3) Local links are dropped when trunks, meet-me conferences and dictation facilities are accessed; thus links are only tied up on inside calls and some special services. This permits a total of 16 simultaneous conversations on a 40B equipped to full capacity.
- 4) Dial "1" method is used to transfer a trunk call and consult with another inside station while on a trunk call. By a wiring option a two station - one trunk conference, controlled by the dial "1" method, may also be incorporated.
- 5) The station loop limit is 1000 ohms excluding the station instrument. Telephones can be located a considerable distance from the switching equipment. The actual distance depends on the size of wire used as well as transmission factors.
- 6) Two classes of service may be provided permitting local stations to be fully restricted or non-restricted from accessing trunk groups, special services and/or tie lines.
- 7) Trunks may be split into two (standard) or three (optional wiring) groups thus permitting access to different Central Offices and Tie Trunk Groups.
- 8) Two types of Night Service can be provided without additional equipment. a) Universal Night Answer & Transfer whereby incoming trunk calls sound a common night signal and may be picked up and subsequently transferred by any station. b) Predetermined Night Answer (No Transfer) whereby a certain trunk is directly connected to a predetermined station so that the station may receive and place trunk calls. The station instrument must be equipped with a grounding pushbutton.
- 9) Power Failure Transfer whereby predetermined stations are connected directly to certain trunks when commercial power fails. Such stations must be equipped with grounding pushbuttons.
- 10) Attendant Busy Override permits the attendant to break in on a busy connection and inform the desired party of an important incoming call.

### OPTIONAL

- 1) Standby power (batteries) to assure full telephone service if commercial power should fail.
- 2) Code call which provides 36 signal codes to alert

) a person who is away from his regular station that a call is waiting. He may be connected to the waiting call by dialing a common pre-assigned telephone number.

- )
- 3) Meet-Me Conference to provide for a conference among up to 4 local stations or 3 local stations and 1 or 2 trunks. This conference may be initiated by a station or the attendant.
  - 4) Various types of Tie Trunks, Watts Trunks and FX Trunks are available to interconnect the 40B PABX with another PABX, PBX or Central Office.
  - 5) Executive Right-Of-Way to permit an executive to override a busy condition either automatically or by dialing an additional digit.
  - 6) Public Address Cut-In which allows a local station to access a paging system by dialing a 2-digit number.
  - 7) Rotary Group Hunting which permits a number of local stations to be tied together and the first idle station within the group to be accessed by dialing a common 2-digit pilot number.
  - 8) Toll Diversion Adapters which check and verify the first three digits dialed toward Central Office. If an unauthorized toll call is being attempted, the toll diversion adapter disconnects the connection and flashes the city trunk lamp on the turret so the attendant may intercept the call. Individual stations, by wiring option, may bypass the toll restrictor. One adapter is needed for each trunk and normally are mounted in an Auxilliary Cabinet.
  - 9) Three types of Night Service may be provided.
    - A) Selected Station Night Answer with Transfer whereby a certain trunk is connected to a pre-selected station which can answer and transfer incoming trunk calls. The station retains full local service and does not require a special telephone.
    - B) Zoned Universal Night Answer with Transfer whereby trunks are segregated into several groups and each group assigned a different night signal. When a signal sounds a pre-assigned digit is dialed to answer the call. It then may be transferred if desired.
    - C) City Trunk Storage allows incoming trunk calls to be temporarily "stored" until desired part-
- )

ies are free to handle. This service is normally used at night or when no turret is provided as a means of holding trunk calls that have been answered by a local station.

- 10) Direct Inward Dialing Trunks are available with the 40B to permit incoming calls to access local stations directly without going through the attendant.
- 11) Group Ringing Conference which permits up to 10 pre-assigned stations to be signaled for conference participation upon operation of a key by the control station. Busy stations receive a tone to tell them they are wanted in conference.
- 12) Camp-On Busy may be provided to permit attendant to "camp" incoming trunk calls on Busy Station Lines. Busy station receives tone to advise of waiting call. When local station becomes idle, trunk call automatically rings desired station.
- 13) Turret transfer may be provided to switch complete operation from the main turret to an auxiliary turret.
- 14) Dictation Links may be incorporated in the 40B allowing users to dial into a dictating machine and control it by use of the telephone dial. A link is required for each machine.
- 15) Message waiting service may be used on motel boards to let a guest know when a message is waiting at the turret. The guest is notified by a small lamp on the telephone that is controlled by a key in the message waiting cabinet.
- 16) Message metering measures the number of calls a guest completes from a motel board. The Dial "1" feature cannot be used when message metering is incorporated.
- 17) Paging telephones are available which enable a worker to move about his work area while carrying on a telephone conversation.

## HOW IT OPERATES

## STATION OPERATION

Outgoing Trunk Calls -- dial city trunk access digit, usually "9". Restricted stations must dial turret attendant.

To Transfer Trunk Call To Another Station -- dial digit "1" then number of the station to which the call is to be transferred. When the station answers replace handset and the call will be transferred automatically.

To Consult With Another Station While Holding A Trunk Call -- dial "1" to place trunk call on hold; dial desired station; dial "1" to return to outside call when consultation is completed.

To Establish Conference With Another Station While On A Trunk Call -- dial "1" to place trunk call on hold; dial desired station; with called station on line, dial "1" to add trunk party to 3-way conference connection.

To Answer Incoming Call With Universal Night Answer And Transfer (No Attendant) -- dial assigned digit, usually 8, when audible signal is heard, call may be transferred as described above. This method may be used in daytime to answer trunks when system is not equipped with turret.

Code Call (Optional) -- dial code call access digit, usually "6" then dial the 2-digit code number of the party to be reached. The party being paged can be connected to the calling party by dialing the code call answer number, usually #31.

Meet-Me Conference (Optional) -- stations desired in the conference connection are notified to dial the conference digit. An incoming trunk call can be put into the conference by the dial "1" transfer method, or by the operator.

## TURRET OPERATION

An attendant can perform all of the following functions with the aid of the compact turret supplied with the 40B PABX:

Answer Incoming Trunk Calls

Extend Incoming Trunk Calls To Local Stations

Hold Incoming Trunk Calls

Split To Extension And To Trunk

Accept Assistance Recalls From Stations

Break-In On A Busy Connection

Place Trunk Calls For Local Stations

Make An Intercom Call To A Local Station

Establish Night Service Connections

(Optional) Establish A Trunk And Local "Meet-Me" Conference

(Optional) Code A Local Party Via Code Call

(Optional) "Camp" A Trunk Call On A Busy Connection

## CONSIDERATIONS (Limitations)

### GENERAL

A turret type system is of most value to a customer and operates at peak efficiency when the local station users are allowed to place their own outgoing trunk calls and perform other telephone operations without the aid of their attendant. Since many of these PABX's replace manual PBX systems, the customer must be informed and properly conditioned for this change in their method of operation.

### CAPACITY

The 40B PABX is designed for customers with a need of up to 40 station lines and 10 central office trunks. The unit cannot be expanded beyond 40 lines. As a result, care must be taken to install this PABX in a location which it will not rapidly out-grow the capabilities of the equipment.

There are 13 relay bar mounting positions in a standard 40B equipment bay. Trunk circuits and most auxiliary services require one relay bar mounting position. This means the 40B is limited to a total of 13 such circuits, unless an Auxiliary Equipment Cabinet is provided.

### AVAILABILITY

Some of the previously described optional services are only available on specially engineered 40 PABX's. Current delivery should be ascertained before making commitments to customers.

## FEATURES AND BENEFITS

Following are some general benefits to users of a 40B PABX. These should be translated into the specific benefits each prospect can expect from his installation.

<u>Features</u>		<u>Benefits</u>
Compact cordless turret permits swift handling of incoming calls.	—	A) Saves money -- does not require full time operator. B) Builds better customer relations -- 1) Good impression of business through fast and proper answering by attendant. 2) Attendant override permits fast action on emergencies. C) Saves valuable office space -- turret can be placed on desk.
DOD (Direct Out Dialing) permits fast and direct placement of outside calls -- without attendant.	—	A) Saves employee time (money) -- no need to wait for operator. B) Betters employee relations -- no delay, confusion or irritation. C) Provides greater privacy -- calls are placed through automatic equipment.
Dial "1" permits transfer -- consultation -- conferencing on both incoming and outgoing calls -- without attendant.	—	A) Saves money -- gets things done faster. B) Betters customer service -- provides more efficient handling of calls. C) Lowers communications costs -- reduces need for extra lines and special equipment.
Any telephone may place an inside call by dialing two digits.	—	Enhances employees' efficiency -- more people can get more done by telephone. Saves walking -- avoids "visiting" and bull sessions -- minimizes work interruptions.
<u>Additional Features</u>		<u>Additional Benefits</u>
Universal Night Answer And Transfer.	—	Full 24-hour telephone service.
Power Failure Transfer.	—	Insures customers' service to central office.
Relatively Low Monthly Rental With Free Maintenance.	—	Provides control over operating expenses.
Two Classes Of Service.	—	Offers full communications flexibility with controlled expense.

The 40B should be sold to customers who:

### THE MARKET

The market for the 40B PABX includes any customer that requires up to 40 station lines with 10 central office trunks on an automatic dial switchboard. The 40B fits in between the smaller 20B and L-55 PBX Systems and the larger 80A, 100T and 300 PABX systems.

- have a present and foreseeable future need for 40 lines and 10 trunks.
- want a convenient intercom system with access to central office lines.
- can benefit from the many features offered by the 40B.



## SALES STRATEGY

### A) PREPARE FOR THE SALES CALL

What present facts do you know about this prospect's business? Their present telephone usage? How do they presently (a) answer calls, (b) place calls, (c) transfer or hold calls, (d) handle internal calls.

### B) GET HIM TO LISTEN

Many prospects think they know what they need in the way of telephone equipment and services without realizing the benefits they can obtain with the unique features of the 40B PABX. Be prepared to gain and maintain interest throughout the interview by citing the benefits prospect can expect and by pointing out the benefits other users are getting.

### C) DETERMINE SALES OBJECTIVE

Have specific recommendations that fit each customer. Relate the features of the 40B in terms of benefits to each specific customer. Target your sales efforts toward what you know a customer's situation to be. In this way you establish a definite sales objective.

### D) MAKE THE RECOMMENDATION

Be prepared to prove the benefits of the 40B. DEMONSTRATIONS are firsthand experiences and the strongest form of proof. Use the SUCCESS STORIES of other customers (more than 4000 Type 40's have been sold to customers in Independent Telephone Company areas). Make your presentation easy to understand; the 40B has some unique features but remember the prospect wants to know: WHAT'S IN IT FOR ME?

### E) ANTICIPATE OBJECTIONS

Consider what objections the prospect may bring up and be prepared to answer. COST? Build up the value of the 40B in terms of the benefits he will receive. In his eyes the benefits must outweigh the cost. Wherever possible, state specific amounts that he will save in time, effort, money, or lost opportunities. COMPETITION? Not only do you have direct competition from manufacturers who sell private communications systems but in reality many salesmen are competing for this businessman's dollar. Competition is a man-to-man fight. The 40B gives you many salable features, but you must be able to explain them in terms of more benefits than your prospect can receive for a different expenditure of his money.

### F) GET FAVORABLE ACTION

Your whole purpose in making a sales call is to GET AN ORDER. What is the simplest way to get an order? ASK FOR IT! If he hedges perhaps you should summarize the benefits he will receive.

### CUSTOMER MUST SUPPLY

The customer must supply an individually fused 115 volt ampere circuit to the switching equipment bay.

Station wiring and cable can be concealed if the customer provides conduit to the equipment bay location.

A dust-free and well ventilated room or adequate space to house equipment must be furnished. If only the 40B bay plus terminal facilities are to be housed in an equipment room, a space approximately 8 feet x 8 feet with a clear ceiling height of 7 feet is recommended.

### RATES

Installation charges .....

Monthly charges .....

40B PABX Common Equipment .....

Turret .....

Stations .....

Optional features .....

### REFERENCE PUBLICATIONS

Technical:

- TB-500-407 Type 40 and 80 PABX

Sales Aids:

- C-1054 Dial Telephone System
- 19042 Issue 3 Station User's Card
- C-1030 Attendant's Instructions for Leich PABX Turrets

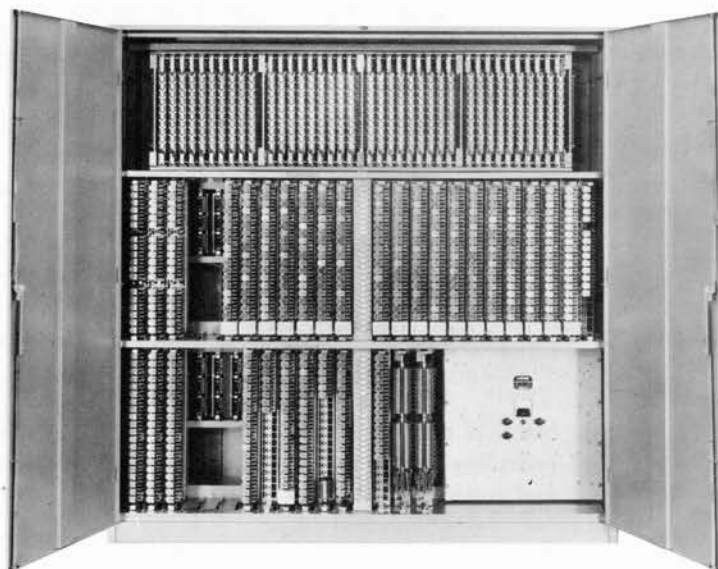
Catalog Information:

- Catalog 11,000 Section T

# COMMUNICATIONS SERVICE GUIDE

CSG  
100.020  
Issue 1

## 80A PABX



**Type 80A PABX Switch Gear  
(front view)**

### DESCRIPTION

The 80A PABX is an all-relay, common control PABX capable of serving a maximum of 80 local lines ( a maximum of 79 local lines when equipped with the attendant's turret). The equipment for the 80A is manufactured at the Genoa Branch (Leich) of Automatic Electric Company. It operates at 48 volts with a common battery central office. The 80A can be equipped with up to 12 local links and 18 city trunks. There is optional equipment available for an extra three local links or two city trunks. It can also be equipped with four attendant's information trunks, and an attendant's intercom line.

This PABX uses standard two conductor telephone instruments as station apparatus and can accommodate special equipment such as key systems, speaker phones,



**26 Trunk Attendant's Turret  
with optional  
Busy Lamp Field**

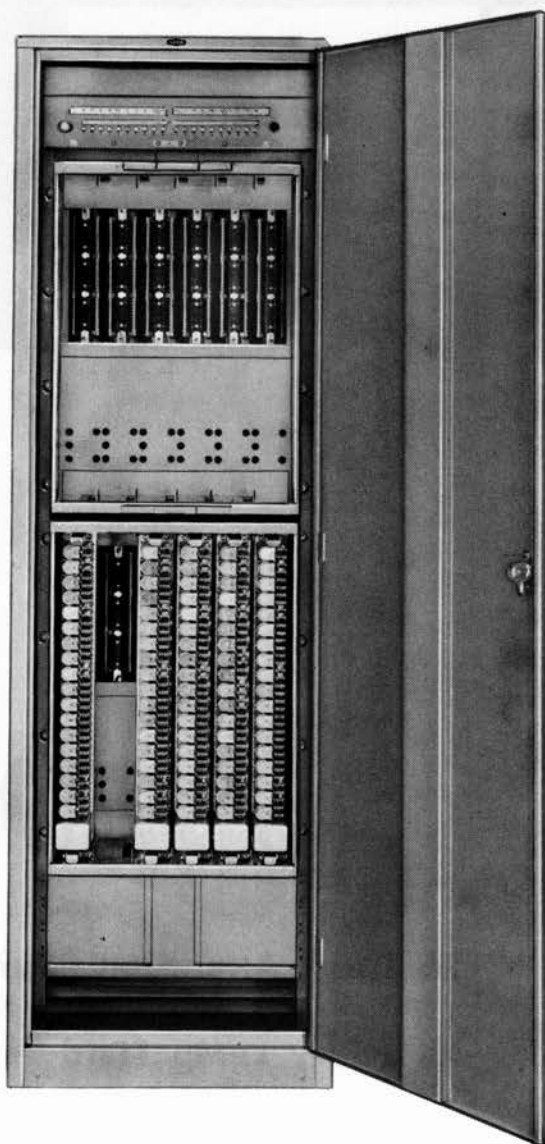
key phones and the like. The 80A uses three-digit local dialing with single digit access to special features.

The attendant's turret for the Type 80A PABX is assembled in an attractive beige, grey or green polystyrene casing, 16" wide, 17" deep, and 8" high. The turret central panel slopes toward the attendant to make all lamps clearly visible and place all controls within easy reach of the attendant. The jacked-in handset is mounted on the side of the turret. A headset is also available. The 80A may be used without a turret if incoming calls are light enough to permit.

The 80A switching equipment is completely inclosed in a gray metal cabinet 72" wide, 72" high and 15" deep. The cabinet has two lift-off hinged doors, both front and rear, and a detachable metal panel. This allows for easy access to the equipment. The bay can be mounted on casters (optional) for mobility and convenience.

AUTOMATIC ELECTRIC COMPANY





## OPTIONAL

An auxiliary trunk bay can be used with the 80A if equipment needs so designate. The auxiliary trunk bay provides 12 jack-in relay bar positions for mounting optional equipment. It is normally used for toll restrictors and the auxiliary bay can come wired for toll restrictors. This over-flow bay measures 24" wide, 72" high, and 15" deep and is finished in matching grey lacquer.

The 80A is constructed so that two attendants' turrets can be connected to one PABX if city trunk traffic becomes too heavy for one attendant to handle efficiently.

If trunk traffic is exceptionally light, a smaller 10 trunk turret (normally used on the 40B PABX) may be used. However, future requirements usually make this arrangement uneconomical.

A busy lamp field, with a capacity of 80 lines, may be added to the turret. This unit lets the attendant know immediately which lines are busy.

## FEATURES

### Standard

1. Local station calls are made by dialing only three digits.
2. The 80A does not require special station apparatus as it is designed for use with standard 2-conductor telephones.
3. Local links are held only on inside station calls, and dropped upon connection in other cases. Thus, on a 80A, which is fully equipped, 27 simultaneous telephone conversations can be going on.
4. The dial "1" method allows a station user to place a trunk call on hold, make consultation calls and transfer trunk calls to other stations. A wiring option can provide a two station - one trunk conference which is set up with dial "1" transfer.
5. The station loop limit is 1000 ohm excluding the station instrument. This means that telephones can be placed a considerable distance from the switching equipment depending on the size of wire used and transmission factors.
6. Stations may be divided into three different groups providing classes of restricted, non-restrictual, and partially restricted service.
7. Trunks may be split into three groups which permit access to different central offices and tie trunk groups.
8. There are two types of night service available on the 80A without special equipment:
  - a) Universal Night Answer and Transfer sounds a common audible signal when a trunk call comes into an unattended turret. The call may be answered from any station by dialing the pre-arranged digit (usually 8).
  - b) Predetermined night answer is a wiring option on the 80A. Certain predetermined stations are connected directly to the city trunks. These stations, which are equipped with grounding pushbuttons, can then answer and place all trunk calls.
9. With power failure transfer, predetermined stations, equipped with grounding pushbuttons, are connected directly to certain trunks in cases of commercial power failure.
10. Attendant busy-override allows the attendant to break in on busy lines in case of emergency.

## Optional

- ) 1. Standby power is used in place of power failure transfer. A group of batteries keep the PABX in uninterrupted operation for up to five hours.
- ) 2. Code call provides 36 signal codes to alert a person who is away from his phone that a call is waiting. He may answer the call from the most available telephone by simply dialing the code answer number.
- ) 3. Meet-me conference is available to allow up to a 10 station-1 trunk conference. All parties to be included dial the conference number at a pre-arranged time. Trunk calls are placed in the conference by the dial "1" method.
- 4. Tie trunks, WATTS trunks and FX trunks are available to connect the 80A with other PABX's or distant central office exchanges.
- 5. The executive-override circuit allows an executive to break in on any busy condition.
- ) 6. The 80A can be equipped with public-address cut to allow a station user to dial into an existing public address system.
- ) 7. Rotary group hunting permits a number of local stations to be tied together and the first idle station within the group to be accessed by dialing a common two-digit pilot number. This circuit provides for two rotary groups of three lines each and is wired to permit the addition of one group of five lines and one group of six lines.
- ) 8. In cases where the customer wishes all toll calls to be placed through the attendant, toll diversion adapters can be used to automatically divert toll call tries to the attendant. By a wiring option individual stations may pass the toll restrictor. Toll adapters are usually mounted in an auxiliary cabinet since one adapter is needed for each trunk.
- ) 9. The 80A has three types of optional night service available:
  - ) a) A trunk is connected directly to a standard station telephone with predetermined Night Answer and Transfer. The connected station answers and transfers. The connected station answers and places all calls on the trunk and retains full local station service of transfer and intercom.
- b) With Zoned Universal Night Answer, trunks are segregated into several groups, each with its own night signal. When a trunk call comes in, it may be answered from any station in the group by dialing the answer digit (usually 8).
- c) City trunk storage provides that incoming trunk calls, which are asking for busy parties, may be placed in storage until the busy party is free.
- 10. If the 80A is equipped with Direct-Inward Dialing (DID) a central office caller dials directly to a PABX local station without going through the turret.
- 11. The group ringing conference permits up to 10 pre-assigned stations to be signaled for conference participation upon operation of a key by the control station.
- 12. The turret attendant may use camp-on-busy to "camp" a trunk on a busy station line. The busy station user hears a splash of tone to tell him that a call is waiting and the call automatically rings his phone when the line is no longer busy.
- 13. Turret transfer may be provided to switch complete operation from the main turret to an auxiliary turret.
- 14. Dictation links are available to connect a station to a dictating machine. The machine can then be controlled by use of the dial on the telephone.
- 15. Message waiting service may be used on motel boards to let a guest know when a message is waiting at the turret. The guest is notified by a small lamp on the telephone that is controlled by a key in the message waiting cabinet.
- 16. Message metering measures the number of calls a guest completes from a motel board. The Dial "1" feature cannot be used when message metering is incorporated.
- 17. Paging telephones are available whereby a worker can move about his work area while carrying on a telephone conversation.



## HOW IT OPERATES

### Station Operation

- Outgoing Trunk Calls -- dial city trunk access digit, usually "9". Restricted stations must dial turret attendant.
- To Transfer Trunk Call to Another Station -- dial digit "1" then number of the station to which the call is to be transferred. When the station answers replace handset and the call will be transferred automatically.
- To Consult With Another Station While Holding a Trunk Call -- dial "1" to place trunk call on hold; dial desired station; dial "1" to return to outside call when consultation is completed.
- To Establish Conference With Another Station While on a Trunk Call -- dial "1" to place trunk call on hold; dial desired station; with called station on line, dial "1" to add trunk party to three-way conference connection.
- To Answer Incoming Call With Universal Night Answer and Transfer (No Attendant) -- dial assigned digit, usually 8, when audible signal is heard, call may be transferred as described above. This method may be used in daytime to answer trunks when system is not equipped with turret.
- Code Call (Optional) -- dial code call access digit, usually 6, then dial the two-digit code number of the party to be reached. The party being paged can be connected to the calling party by dialing the code call answer number, usually 31.
- Meet-Me Conference (Optional) -- stations desired in the conference connection are notified to dial the conference digit. An incoming trunk call can be put into the conference by using the dial "1" transfer method.

### Turret Operation

An attendant can perform all of the following functions with the aid of the compact turret supplied with the 80A PABX:

Answer Incoming Trunk Calls

Extend Incoming Calls to Local Stations

Hold Incoming Trunk Calls

Split to Extension and to Trunk

Accept Assistance Recalls from Stations

Break-In on a Busy Connection

Place Trunk Calls for Local Stations

Make an Intercom Call to a Local Station

Establish Night Service Connections

(Optional) Establish a Trunk and Local "Meet-Me" Conference

(Optional) Code a Local Party Via Code Call

(Optional) "Camp" a Trunk Call on a Busy Connection

## CONSIDERATIONS (Limitations)

### General

A turret type system is of most value to a customer and operates at peak efficiency when the local station users are allowed to place their own outgoing trunk calls and perform other telephone operations without the aid of their attendant. Since many of these PABX's replace manual PBX systems, the customer must be informed and properly conditioned for this change in their method of operation.

### Capacity

The 80A is designed for customers with a need of up to 80 station lines and 18 central office trunks. This is not an expandable board so 80 lines is the maximum. Thus the future requirements of the installation must be carefully considered to make sure the 80A will not be rapidly outgrown.

The 80A provides 36 relay bar positions. Since each trunk takes up one of these positions and most of the auxiliary services take up one position the board is limited to 36 such circuits. Use of the auxiliary trunk bay provides 12 extra positions which brings the total capacity of the 80A to 48 positions.

### Availability

Some of the previously described optional services are only available on specially engineered 80A PABX's. Current delivery should be ascertained before making commitments to customers.

## FEATURES AND BENEFITS

Following are some general benefits to users of an 80A PABX. These should be translated into the specific benefits each prospect can expect from his installation.

### Features

### Benefits

Compact cordless turret permits swift handling of incoming calls. —

- A) Saves money -- does not require full time operator.
- B) Builds better customer relations --
  - 1) Good impression of business through fast and proper answering by attendant.
  - 2) Attendant override permits fast action on emergencies.
- C) Saves valuable office space -- turret can be placed on desk.

DOD (Direct Out Dialing) permits fast and direct placement of outside calls -- without attendant. —

- A) Saves employee time (money) -- no need to wait for operator.
- B) Better employee relations -- no delay, confusion or irritation.
- C) Provides greater privacy -- calls are placed through automatic equipment.

Dial "1" permits transfer, consultation, conferencing on both incoming and outgoing calls -- without attendant. —

- A) Saves money -- gets things done faster.
- B) Improves customer service -- provides more efficient handling of calls.
- C) Lowers communications costs -- reduces need for extra lines and special equipment.

An inside call may be placed from any station by dialing three digits. —

- A) Enhances employee efficiency -- more people can get more done by telephone.
- B) Saves walking -- avoids "visiting" and bull sessions -- minimizes work interruptions.

### Additional Features

### Additional Benefits

Universal Night Answer and Transfer. —

Full 24-hour telephone service.

Power Failure Transfer. —

Insures customers service to central office.

Relatively Low Monthly Rental with Free Maintenance. —

Provides control over operation expenses.

Three Classes of Service. —

Offers full communications flexibility with controlled expense.

## THE MARKET

The market for the 80A PABX includes any customer that requires up to 80 station lines and 18 central office trunks on an automatic dial switchboard. The 80A is an interim PABX for customers who are too large for the 40 line 40B PABX but not ready for the expansible 100T or 300 PABX systems.

The 80A should be sold to customers who:

- have a present and foreseeable need for 80 lines and 18 trunks;
- want a convenient intercom system with access to central office lines;
- can benefit from the many features offered by the 80A but are too large for a 40B.

## SALES STRATEGY

### A) PREPARE FOR THE SALES CALL

What present facts do you know about this prospect's business? His present telephone usage? How does he presently (a) answer calls, (b) place calls, (c) transfer or hold calls, (d) handle internal calls.

### B) GET HIM TO LISTEN

Many prospects think they know what they need in the way of telephone equipment and services without realizing the benefits they can obtain with the unique features of the 80A PABX. Be prepared to gain and maintain interest throughout the interview by citing the benefits prospect can expect and by pointing out the benefits other users are getting.

### C) DETERMINE SALES OBJECTIVE

Have specific recommendations that fit each customer. Relate the features of the 80A in terms of benefits to each specific customer. Target your sales efforts toward what you know a customer's situation to be. In this way you establish a definite sales objective.

### D) MAKE THE RECOMMENDATION

Be prepared to prove the benefits of the 80A. Demonstrations are firsthand experiences and the strongest form of proof. Use the success stories of other customers. Make your presentation easy to understand; the 80A has some unique features but remember the prospect wants to know: What's in it for me?

### E) ANTICIPATE OBJECTIONS

Consider what objections the prospect may bring up and be prepared to answer. COST? Build up the value of the 80A in terms of the benefits he will receive. In his eyes the benefits must outweigh the cost. Wherever possible, state specific amounts that he will save in time, effort, money, or lost opportunities.

COMPETITION? Not only do you have direct competition from manufacturers who sell private communications systems but in reality many salesmen are competing for this businessman's dollar. Competition is a man-to-man fight. The 80A gives you many salable features, but you must be able to explain them in terms of more benefits than your prospect can receive for a different expenditure of his money.

### F) GET FAVORABLE ACTION

Your whole purpose in making a sales call is to get an order. What is the simplest way to get an order? Ask for it! If he hedges perhaps you should summarize the benefits he will receive.

### CUSTOMER MUST SUPPLY

The customer must supply an individually fused 20 ampere circuit 115 volt a.c. outlet to the switching equipment bay.

Station wiring and cable can be concealed if the customer provides conduit to the equipment bay location.

A dust-free and well ventilated equipment room or adequate space to house equipment must be furnished. If only the 80A bay plus terminal facilities are to be housed in an equipment room, a space of approximately 10' x 8' with a clear ceiling height of 7' is recommended.

### RATES

Installation charges . . . . .

Monthly charges . . . . .

80A PABX Common Equipment . . . . .

Turret . . . . .

Stations . . . . .

Optional features . . . . .

### REFERENCE PUBLICATIONS

#### Technical:

- TB-500-407 Type 40 and 80 PABX

#### Sales Aids:

- C-1054 Dial Telephone System
- C-1030 Attendant's Instructions for Leich PABX Turrets
- 19042 Issue 3 Station User's Card "Your Dial Telephone System"

#### Other:

- Catalog 11,000, Section T - PABX - PBX

# COMMUNICATIONS SERVICE GUIDE

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## 100T PABX



40-Trunk Console.

### DESCRIPTION

The 100T PABX is an all-relay, common control PABX expandable to 40 trunks and 400 lines.

The 100T has a capacity of up to 20 city trunks, and 20 one-way outward trunks per group, with a maximum of 26 trunks appearing on the turret; up to 15 local links per 100 lines; and up to 100 lines per switchboard bay. A maximum of 15 toll diversion adapters are available. The board operates at 48 volts with automatic or common battery central offices; and, the trunk loop limit is 1500 ohms or the central office limit, while the line limit is 1000 ohms, excluding the station instrument.

The 100T uses standard two-conductor telephone instruments as station apparatus and can accommodate special equipment such as key systems, key telephones, and speaker phones. The 100T uses three-digit local dialing with single digit access to special features.

Either a 26-trunk or 12-trunk attendant turret can be provided with the 100T. The 26-trunk turret handles up to 26 trunks which can be divided into any desired combination of city trunks and one-way inward and outward attendant's trunks. The 26-trunk turret measures 16" wide (excluding handset cradle), 16 1/2" deep, and 7 1/2" high.

The 12-trunk turret provides for 10 city trunks, 2 one-way inward attendant's trunks, and an



attendant's outward trunk. This turret has the same attractive appearance as the 26-trunk turret, but measures only 11 1/4" wide (excluding handset cradle), 9 1/2" deep, and 6 1/4" high. (Both turrets have a sloping control panel to make all lamps clearly visible, and place all controls within easy reach of the attendant.

The switchboard bay includes common equipment as well as jack-in lines and links, and is housed in a grey steel cabinet equipped with sliding doors, front and back, for easy access. The 100-line switchboard bay measures 56" wide, 89" high, and 15" deep. The power and trunk equipment is mounted on separate bays outside the switchboard cabinet. A trunk bay, measuring 20 3/8" wide, 89" high, and 15" deep, is used to mount city trunks and other miscellaneous equipment. The power bay, measuring 24" wide, 89" high, and 15" deep, houses ringing supply, ringing interrupters, circuit breakers, and meter and test equipment (as required). D-C power is furnished by a battery eliminator which can be either rack- or wall-mounted. An external 48-volt battery and battery charger can also be furnished.

## OPTIONAL

A 40-trunk cordless, beige floor console is capable of serving up to 40 trunks, which can be divided into any desired combination of city trunks and one-way inward and outward attendant's trunks. An optional busy-lamp field with a capacity of 400 lines, in increments of 100 lamps, lets the attendant know immediately which lines are busy. Ticket pockets for filing messages, charges, etc. can be furnished in lieu of busy-lamp panels.

## FEATURES

### Standard

1. Local calls are made by dialing three digits.
2. The station loop is 1000 ohms, excluding the station instrument. This means that telephones can be placed a considerable distance from the switching equipment depending on the size of wire used and transmission factors.
3. The 100T does not require special station apparatus as it is designed for use with standard two-conductor telephones.
4. The dial "1" method allows a station user to place a trunk call on hold, make consultation calls, and transfer trunk calls to the other stations.
5. Stations may be divided into two different groups providing classes of restricted and non-restricted service.

6. Universal Night Answer and Transfer sounds a common audible signal when a trunk call comes in to an unattended turret. The call may be answered from any station by the prearranged digit (usually "8").
7. Attendant busy-override allows the attendant to break-in on busy lines in case of emergency.

### Optional

1. "Meet-Me" type conference is available to allow up to a 4 station, 1 trunk (or 5 stations) conference. All parties to be included dial the conference number at a prearranged time. Trunk calls are placed in the conference by the dial "1" method.
2. Code call provides 36, 100, or 1000 signal codes to alert a person who is away from his phone that a call is waiting. He may answer the call from the most available telephone by simply dialing the code answer number.
3. The 100T can be equipped with public address cut-in to allow a station user to dial into an existing public address system.
4. Tie trunks, WATS trunks and FX trunks are available to connect the 100T with other PABX's or distant central office exchanges.
5. The executive-override circuit allows an executive to break in on any busy condition.
6. Trunks may be split into two or more groups which permit access to different central offices and tie trunk groups.
7. Certain pre-determined stations are connected directly to the city trunks for night answer service. All incoming calls will be answered from these stations (transfer and consult features inoperative).
8. Rotary group hunting permits a number of local stations to be tied together and the first idle station within the group to be accessed by dialing a common three-digit pilot number.
9. With power failure transfer, pre-determined stations, equipped with grounding pushbuttons, are connected directly to certain trunks in cases of commercial power failure.
10. Standby power is used in place of power failure transfer. A group of batteries keep the PABX in uninterrupted operation for up to five or more hours.

11. Dictation links are available to connect a station to a dictating machine. The machine can then be controlled by use of the dial on the telephone.
12. In cases where the customer wishes all toll calls to be placed through the attendant, toll diversion adapters can be used to automatically divert attempted toll calls to the attendant. By a wiring option, individual stations may by-pass the toll restrictor. Toll adapters are usually mounted in an auxiliary cabinet since one adapter is needed for each trunk, or rack mounted when common toll adapters are employed.

## HOW IT OPERATES

### Station Operation

- Outgoing Trunk Calls -- dial city trunk access digit, usually "9." Restricted stations must dial turret attendant ("0").
- To Transfer Trunk Call to Another Station -- dial digit "1," then number of the station to which the call is to be transferred. When the station answers, replace handset and call will be transferred automatically.
- To Consult With Another Station While Holding a Trunk Call -- dial "1" to place trunk on hold; dial desired station; dial "1" to return to outside call when consultation is completed.
- To Establish Conference With Another Station While on a Trunk Call -- dial "1" to place trunk call on hold; dial desired station; with called station on line, dial "1" to add trunk party to three-way conference connection.
- To Answer Incoming Call With Universal Night Answer and Transfer (No Attendant) -- dial assigned digit, usually "8," when audible signal is heard; call may be transferred as described above. This method may be used in daytime to answer trunks when system is not equipped with turret.
- Code Call (Optional) -- dial code call access digit, usually "6," then dial the two-digit code number of the party to be reached. The party being paged can be connected to the calling party by dialing the code call answer number.
- Meet-Me Conference (Optional) -- stations desired in the conference connection are notified to dial the conference digit. An incoming trunk call can be put into the conference by using the dial "1" transfer method.

## Turret Operation

An attendant can perform all of the following functions with the aid of the compact turret supplied with the 100T PABX:

- Answer incoming trunk calls
- Extend incoming calls to local stations
- Hold incoming trunk calls
- Break-in on a busy connection
- Monitor city trunk - local station connection
- Split to trunk and to extension
- Establish night service connections
- Accept assistance recalls from stations
- Place trunk calls for local stations
- Establish a trunk and local "Meet-Me" Conference (Optional)
- Code a local party via code call (Optional)

## THE MARKET

The market for the 100T includes any customer who has a need of from 80 to 400 lines and up to 40 trunks. The unique features and versatility of the 100T make it ideally suited for special applications such as:

- retirement homes
- nursing homes
- recreation centers
- department stores
- hospitals
- court houses
- schools
- motels (100M)

It should not be limited to these applications. Because of the comparatively small space required for the switching equipment and the low rates applied to it, the 100T can be sold in many instances when a customer is balking at a more complicated PABX.

## CONSIDERATIONS (Limitations)

### General

The 100T is designed for business offices which require modern communications services. It is best utilized when local users are allowed to place their own local outgoing calls and are given as much freedom as possible when using the telephone. The staff should be familiar with the 100T and taught how to operate it properly, in order for them to be completely satisfied. Check their needs

and make sure they require this type of telephone service; larger business establishments may be more satisfied with a 300 PABX.

### **Capacity**

The 100T PABX is designed for customers with a need of up to 400 station lines and 40 central office trunks. The future requirements of the installation must be carefully considered to make sure the 100T will not be rapidly outgrown.

Each trunk bay provides up to 18 relay bar positions. Each trunk takes up one of these positions and most of the auxiliary services take up one position. The trunk bay is limited to 18 such circuits.

### **Availability**

Some of the previously described optional services are only available on specially engineered 100T PABX's. Current delivery should be ascertained before making commitments to customers.

## **SALES STRATEGY**

A good sales program consists of thorough preparation, a good presentation and a combined follow through. The following are some pointers for a successful sale of the 100T PABX.

### **Preparation**

Being a large system, any 100T that is placed in service will be a big revenue producer. Since it will make a good profit, it will be worth your while to spend a good deal of time making an exhaustive preparation to market the 100T. There are a number of steps which can be followed to ferret out 100T prospects and sell them on this system.

- **Selection of Potential Prospects** - The first step in your program should be a review of your business community to find prospects for large PABX's. Prospects will be found in one of the three classes who (a) are new business customers, (b) have outgrown their present systems, (c) already have a large system, but are in need of more modern services.
- **Review of Prospects** - After selecting potential prospects, gather together all the available information on them. If he is already a customer, copies of past presentation reports and market calls will give you a basic understanding of his present situation.

The next step is to find out how the prospect's business operates and what his communications expectations are. In order to sell a prospect on the right equipment, you must understand his situation and his wants. The best way to find out what your prospect wants is to ask him. A survey of the customer, on his premises, is the best way to ask him. This survey can be made on a company initiated basis or as part of other activities concerning the prospect's communication services.

- **Analysis** - A comprehensive analysis should then be made of the prospect's communications requirements to match his needs and wants with what you can furnish. The versatility of the 100T will meet the requirements of many of your large PABX prospects. Using a "Communications Usage and Proposal Survey" form or something similar, determine a prospect's present situation such as his methods of operation, what services he now has, future growth expectations and detailed technical data. Traffic studies should be made to determine trunking requirements and intercom usage.

### **Presentation**

It is recommended that a written proposal be prepared prior to making the actual presentation to the customer. After reviewing all the information made available during your preparation, the traffic and/or engineering people should be contacted for their recommendations. Doing this will avoid the embarrassment of proposing a system that is technically infeasible or impractical.

The climax of all the usage prospecting and consultation is the actual presentation to the customer. It is recommended that the oral presentation be supplemented by a written proposal including all the literature which the customer would be interested in. These can be referred to during the presentation and will give the customer something in writing to refer to should he want to confirm the more important details afterward.

### **Follow - Up**

After a sale is completed, the responsibility of the Sales Department does not end. Service to the customer is your responsibility. Sales should make certain that the installation is completed on time and that the customer and his people are properly trained in the use of their new PABX system. In this way, you will leave the door open for future sales to this customer and be able to refer to him as a satisfied user. A satisfied user is the gauge of a successful sale.

## FEATURES AND BENEFITS

Following are some general benefits to users of a 100T PABX. These should be translated into the specific benefits each prospect can expect from his installation.

Features	Benefits
Cordless Turret Operation for quick and easy handling of calls.	A) Saves money - does not require full time attendant. B) Builds better customer relations - 1) Good impression of business through fast and proper answering by attendant. 2) Attendant override provides fast action in emergencies. C) Saves valuable office space - turret can be placed on a desk.
Dial "1" method provides hold, transfer, consultation and conference calls without the aid of the attendant.	A) Saves money - gets things done faster. B) Better service - provides more efficient handling of calls. C) Lowers communications costs - reduces need for extra lines and special equipment.
Direct Outward Dialing (DOD) allows station users to place their own trunk calls privately and quickly.	A) Saves money - the station user does not have to waste valuable time waiting for an operator to place the call. B) Better employee relations - no delay, confusion or irritation. C) Provides greater privacy - calls are placed through impersonal, automatic equipment.
A wide range of expansibility to meet future growing needs.	A) Saves money - fast growing customers do not have to pay installation charges every couple of years. B) Saves time and inconvenience - customer always has PABX service; does not have to wait for the old system to be removed and the new system installed. C) Stops confusion of the operator - she does not have to learn a new turret operation every time some lines or trunks are added to the PABX.
An inside call can be made automatically from any station.	A) Enhances employee efficiency - more people can get more done by telephone. B) Saves walking - avoids "visiting" and "bull sessions" - minimizes work interruptions. C) Saves money - customer does not have to have a separate intercom system.

Additional Features	Additional Benefits
Night service features	- Provides 24 hour telephone service without the cost of a 24 hour attendant.
Two classes of restriction	- Offers full communications flexibility with controlled expense.
Rotary group hunting	- Incoming calls are answered fast - builds a company image of efficiency.
Message metering (100-M)	- Number of guests' telephone calls are known immediately to facilitate billing and avoid confusion.
Message waiting	- Guests are notified immediately of waiting messages without the attendant repeatedly calling the room.
Uses standard two-wire telephone	- Saves money and time by not requiring special station apparatus.
Free maintenance	- Provides control over operation expenses.



## CUSTOMER MUST SUPPLY

The customer must supply an individually fused 115-volt a-c outlet to the switching equipment bay.

Station wiring and cable can be concealed if the customer provides conduit to the equipment bay location.

A dust-free and well-ventilated equipment room or adequate space to house equipment must be furnished. If only the 100T bay (100 lines) plus terminal facilities are to be housed in an equipment room, a space of approximately 8'x10' with a clear ceiling height of 9' is recommended.

## RATES

Installation Charges .....

Monthly Charges

100T PABX Common Equipment .....

12-Trunk Turret .....

26-Trunk Turret .....

Stations .....

Optional features .....

## REFERENCE PUBLICATIONS

### Sales Aids:

- C 1016 (Leich) Type 100T PABX System

## NOTES:

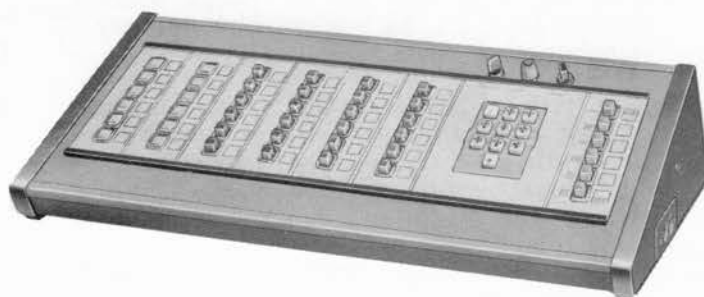
# COMMUNICATIONS SERVICE GUIDE

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## TYPE 300 PABX



**Type 300 Cordless Console**



**Type 300 Turret**

(Wired For 36 Trunks,  
Equipped With 24 Buttons)

### DESCRIPTION

The Type 300 is a modern, expandable, step-by-step PABX designed to provide a wide variety of services with standard two-wire telephones. This PABX is available with an attractive beige 10" x 17 1/2" attendant turret providing facilities for supervising a total of 24 trunks, a 10" x 21 3/4" turret with a capacity of up to 36 trunks, or a handsome beige floor console with facilities for supervising a total of 48 trunks. The turrets and console feature touch-calling keysenders and non-locking, lighted trunk keys.

The Type 300 PABX is available in any capacity desired from 50 lines up and features indefinite expansibility. A customer can start off small and as his requirements increase, the 300 can

be expanded with a minimum of inconvenience and expense to meet his needs.

Switches and trunk equipment of the Type 300 PABX are normally mounted on 6' 6" high double-sided frames and racks designed to save floor space on the customer's premise, especially where ceiling height is 9' or less. Standard shelves have a capacity of 10 switches and are interconnected by jumper wire. One side of the switching equipment frame and trunk rack is gate mounted to swing outward and provide access to the rear of the equipment for ease of installation and servicing.

The power equipment mounts on a 6' 6" single-sided frame. A specially designed 6' 6" main distributing frame is also available to house the 300 terminal facilities.

AUTOMATIC ELECTRIC COMPANY

## OPTIONAL

The Type 300 switch shelves may also be mounted on 9' high single-sided frames if ample ceiling height dictates this to be a better arrangement for the customer.

The floor console may include a station-busy lamp field with a 400-line capacity, furnished in 100 line increments. Ticket pockets for filing messages, charges, etc. can also be furnished in lieu of busy lamp panels.

## FEATURES

### Standard

1. Two-digit local dialing if a connector system, three-digit local dialing if a selector system.
2. Standard two-conductor telephones are used which permit use of special station apparatus such as speakerphones, key telephones, etc.
3. Dial "1" method is used to transfer a trunk call or to consult with another inside station while on a trunk call. A two-station-one trunk conference, established by the station user, is also a feature of the 300.
4. The station loop limit is 1000 ohms, excluding the station instrument. Telephones can be located a considerable distance from the switching equipment. The actual distance depends on size of wire used and transmission factors.
5. Trunks may be split into any number of groups to permit access to different central offices and tie trunk groups.
6. Two types of night service can be provided without additional equipment:
  - a) Universal Night Answer & Transfer, whereby incoming trunk calls sound a common night signal and may be picked up and subsequently transferred by any station.
  - b) Predetermined Night Answer (no transfer), whereby a certain trunk is directly connected to a predetermined station so that the station may receive and place trunk calls. The station instrument must be equipped with a grounding pushbutton.
7. Either Power Failure Transfer or Standby Power is used to provide uninterrupted telephone service during commercial power failure.
8. Attendant Busy Override permits the attendant to break in on a busy condition and inform the desired party of an important incoming call.
9. Attendant-controlled Camp-On-Busy informs a busy station that a trunk call is waiting. The trunk call automatically rings the busy station when idle.
10. Rotary Group Hunting may be set up in groups of ten stations. With this feature a certain station in the group will ring every time there is a call for the group. If the primary station is busy, the next idle station within the group will ring.
11. Immediate Ringing saves call completion time by forwarding a splash of ring immediately when a called line tests idle.
12. Cordless turret operation, with a touch-calling keyset, provides for handling of both incoming and outgoing calls.

### Optional

1. Two additional cordless attendant facilities are available:
  - a) A turret wired for 36 and equipped with 24 trunk keys.
  - b) A cordless floor console wired for 48 and equipped with 24 trunk keys. This unit may also be equipped with a Busy Lamp Field having a capacity of up to 400 lines in 100 lamp increments, or ticket pockets, or blank panels.
2. Up to three (normal recommended maximum) attendant's positions may be provided for a single installation.
3. Extendable information trunks to permit station users to place outgoing toll calls through the attendant by dialing "0" and staying on line while attendant places call.
4. Stations may be divided into three different classes of service groups: restricted, non-restricted, and partially restricted.
5. Various types of tie, WATS, and FX trunks can be provided to connect the 300 with other PABX's or distant central offices.
6. Direct-Inward-Dialing (DID) trunks which allow a central office caller to dial directly to a PABX station without going through the attendant. However, this feature requires special equipment considerations in the central office.
7. Toll Restriction which prevents local

stations from making toll calls. Arrangements can be built-in to permit certain stations to by-pass the toll restrictors.

8. There are two types of Optional Night Service available on the 300 PABX:

a) Selected Station Night Answering allows a pre-selected station to answer and transfer incoming trunk calls. The station does not require a special telephone and has full local and outgoing service.

b) Zoned Universal Night Answering segregates trunks into several groups, each with its own night signal. When the signal is heard, a preassigned digit is dialed to answer the incoming trunk call. The call may then be transferred.

9. Meet-Me Conference allows a number of local stations to hold a conference by each dialing the conference number at a prearranged time. A trunk may be placed in the conference by a local station using the dial 1 method. Attendant-controlled Progressive Selection Conference allows a number of stations to be placed in conference with a trunk and prohibits other stations from monitoring the conference.

10. Public Address Cut-In, to allow a local station to dial-access a public address system and broadcast an announcement.

11. Code Call provides up to 125 two- and three-digit codes to alert a person, away from his telephone, that a call is waiting by sounding his code signal.

12. The 300 PABX may be equipped with an Executive Right Of Way feature which allows an executive to break in on a busy connection.

13. Dictation Links are available which permit a user to dial access a dictating machine and control it by dialing additional digits.

14. Message Waiting, which is normally provided on motel installations, may be added to let a station user (motel guest) know a message is waiting at the turret.

15. Message Metering, which is normally provided on Motel Systems, measures the number of local city calls a guest completes. Either resettable or non-resettable meters can be provided.

16. Various types of station apparatus, such as a Two-Way Paging Telephone, Secretarial Answering Cabinets and Direct Line units may be utilized with the 300.

## HOW IT OPERATES

### Station Operation

Outgoing Trunk Calls - dial city access digit, usually "9". Restricted stations must dial turret attendant.

To Transfer Trunk Call To Another Station - dial digit "1" then number of the station to which the call is to be transferred. When the station answers replace handset and the call will be transferred automatically.

To Consult With Another Station While Holding A Trunk Call - dial "1" to place trunk call on hold; dial desired station; when consultation is completed and the other inside party hangs up you will be automatically reconnected to the outside call.

To Establish Conference With Another Station While On A Trunk Call - dial "1" to place trunk call on hold; dial desired station; with called station on line, dial "1" to add trunk party to 3-way conference connection.

To Call Or Recall Attendant - dial "0". This can be done even when talking to an outside party.

Camp-On-Busy - If you should receive an outside call while using your phone, you will hear a "splash" of tone. This indicates that you have another outside call waiting. When you hang-up, your phone will ring and you will be connected to this incoming call.

To Answer Incoming Call With Universal Night Answer And Transfer (No Attendant) - dial assigned digit, usually "8", when audible signal is heard; call may be transferred as described above. This method may be used in daytime to answer trunks when system is not equipped with turret.

To Use Predetermined Night Answer - Certain stations are individually connected to central office trunks at night. These stations can answer incoming calls and place outgoing calls, but they cannot transfer or use other system features during the night-answering period.

To Use Selected Station Night Answering (optional) - Certain stations are connected directly to central office trunks at night. These stations can answer incoming calls, place outgoing calls, transfer calls via dial "1" transfer, in addition to all of the other regular PABX facilities.

Code Call (optional) - dial code call access digit, usually "6", then dial the 2-digit code number of the desired party. The party being paged can be connected to the calling party by dialing the code call answering number.



Meet-Me Conference (optional) - stations desired in the conference connection are notified to dial the conference digit. An incoming trunk call can be put into the conference by the dial "1" transfer method, or by the attendant.

### **Turret Operation**

An attendant can perform all of the following functions with the aid of the modern turret or console supplied with the 300 PABX:

Answer Incoming Trunk Calls

Extend Incoming Trunk Calls To Local Stations

Hold Incoming Trunk Calls

Split To Extension And To Trunk

Accept Assistance Recalls From Stations

"Camp" A Trunk Call On A Busy Connection

Break-In On A Busy Connection

Place Outgoing Trunk Calls For Local Stations

Make An Intercom Call For A Local Station

Establish Night Service Connections

(Optional) Establish A Trunk And Local "Meet-Me" Conference

(Optional) Establish A Trunk And Local Progressive-Selection Conference

(Optional) Code A Local Party Via Code Call

### **CONSIDERATIONS (Limitations)**

#### **General**

The Type 300 PABX is a modern communications system made for businesses and places of lodging which require a sophisticated telephone system. For a customer to be completely happy with the 300, he must need and understand the various modern features which go into the make-up of the system. A large automatic PABX such as the 300 is best utilized when the local users are allowed to place their own outgoing calls and perform other telephone operations without the aid of the attendant. The customer must be properly informed and conditioned to the method of operations of the 300 to get the most out of it.

#### **Capacity**

The 300 PABX is generally designed for customers with an initial need of 50 lines and where expansion is eminent. If a customer's ultimate requirements may never exceed 80 lines and 18 trunks, a non-expandable packaged system like the 80A might be better applied.

The 300 PABX has unlimited expansibility. It will perform just as well in systems of 60 lines or of 1000 lines. However, the 300 operates on basis of a key and lamp for each trunk. Therefore, if the trunk requirements become excessive, a Type 310 concentrated trunk system should be considered to cut down on the number and capacity of turrets required.

### **Availability**

Some of the optional services outlined previously require special engineering, so a delivery schedule should be ascertained before making definite commitments to customers.

### **Features**

When placing outside calls, a station user must commence dialing and dial each digit within 8 to 15 seconds (time adjustable by installer) of the previous digit. When time is exceeded, trunk circuit "assumes" that the next pulse should not be passed to Central Office. If time is exceeded and subsequent digit is "2" through "0" the attendant will be recalled; if digit is "1" local dial tone will be received as in a transfer-consultation call. Customers should be instructed to have desired number readily available before placing a call.

Before transferring an outgoing call, the station user must wait 8 to 15 seconds (time adjustable by installer) after dialing last digit of the CO number. Otherwise, trunk circuit "assumes" the digit "1" should be passed to the central office.

### **THE MARKET**

The market for the Type 300 PABX includes all customers who have a need for at least 50 stations and 5 central office trunks. The unique features, expansibility, and flexibility of the 300 permit it to be tailored to the needs of any customer group.

Special Message Waiting, Message Metering, and Guest Dialing features make it ideally suited for hotels and motels. Its space-saving attendant facilities are of particular interest to this customer group.

Although normally applied as a two-way trunk system, the 300's optional DID trunks permit it to meet those CENTREX CU service requirements which are not large enough to require the 310 PABX.

Its multi-turret capabilities make it ideal for applications requiring more than one listed number, such as county court houses.

Special security and alarm features can be added to make the 300 adaptable for correctional, mental health, and old age institutions.

## FEATURES AND BENEFITS

The following are some general benefits to users of 300 PABX's. These should be translated into the specific benefits each prospect can expect from his 300 system.

<u>Features</u>		<u>Benefits</u>
Cordless turret operation for quick and easy handling of incoming calls.	—	<p>A) Saves money--does not require full time attendant.</p> <p>B) Builds better customer relations.</p> <p>1) Good impression of business through fast and proper answering by attendant.</p> <p>2) Attendant override provides fast action in emergencies.</p> <p>C) Saves valuable office space--turret can be placed on a desk.</p>
Dial "1" method provides hold, transfer, consultation, and conference calls without the aid of the attendant.	—	<p>A) Saves money--gets things done faster.</p> <p>B) Better service--provides more efficient handling of calls.</p> <p>C) Lowers communications costs--reduces need for extra lines and special equipment.</p>
Direct Outward Dialing (DOD) allows station users to place their own trunk calls privately and quickly.	—	<p>A) Saves money--the station user does not have to wait for the operator and saves them valuable time in placing calls.</p> <p>B) Better employee relations--no delay, confusion, or irritation.</p> <p>C) Provides greater privacy--calls are placed through impersonal automatic equipment.</p>
Indefinitely expandable to meet all future growing needs.	—	<p>A) Saves money--fast growing customer does not have to pay installation charges every couple of years.</p> <p>B) Saves time and inconvenience--customer always has PABX service; does not have to wait for the old system to be removed and the new system installed.</p> <p>C) Stops confusion of operator--she does not have to learn a new turret operation every time some lines or trunks are added to the PABX.</p>
An inside call can be made automatically from any station.	—	<p>A) Enhances employee efficiency--more people can get more done by telephone.</p> <p>B) Saves walking--avoids "visiting" and "bull sessions"--minimizes work interruptions.</p> <p>C) Saves money--customer does not have to have a separate intercom system.</p>

<u>Additional Features</u>		<u>Additional Benefits</u>
Nite Service Features	—	Provides 24 hour telephone service without the cost of an attendant.
Two Classes of Restriction	—	Offers full communications, flexibility with controlled expense.
Rotary Group Hunting	—	Gets incoming calls answered fast - builds efficient company image.
Message Metering	—	Number of guest's telephone calls are known immediately to facilitate billing and avoid confusion.
Message Waiting	—	Guests know immediately when a message is waiting at the switchboard without bothersome calling of the room.
Uses standard two wire telephone	—	Saves money by not requiring special station apparatus.

## SALES STRATEGY

### Prepare For The Sales Call

1. What present facts do you know about this prospect's business? Their present telephone usage? How do they now (a) answer calls, (b) place calls, (c) transfer or hold calls, (d) handle internal calls?
2. It's in your company's interest to have your customer's employees place their own outgoing calls. Most customers prefer cordless attendant facilities and are always anxious to cut down on the number of operators or to have a single attendant serve as a combination receptionist-operator.

The unique features of the 300 allow you to offer the benefits of cordless attendant facilities and less operator time to your customers, but use these benefits as a means of convincing them that station users should place their own calls.

### Get Him To Listen

Be prepared to gain and maintain interest throughout the interview by citing benefits the prospect can expect and by pointing out the benefits other users are getting.

### Determine Sales Objective

Have specific recommendations that fit each customer. Relate the features of the 300 in terms of benefits to each specific customer. Target your sales efforts toward what you know a customer's situation to be. In this way you establish a definite sales objective.

### Make The Recommendation

Be prepared to prove the benefits of the 300. DEMONSTRATIONS are firsthand experiences and the strongest form of proof. Use the SUCCESS STORIES of other customers. Make your presentation easy to understand; the 300 has many unique features but remember, the prospect wants to know: WHAT'S IN IT FOR ME?

### Anticipate Objections

Consider what objections the prospect may bring up and be prepared to answer.

**COST?** Build up the 300 in terms of the benefits he will receive. In his eyes the benefits must outweigh the cost. Wherever possible, state specific amounts that he will save in time, effort, money, or lost opportunities.

**COMPETITION?** Not only do you have direct competition from manufacturers who sell

private communications systems but in reality many salesmen are competing for this businessman's dollar. Competition is a man-to-man fight. The 300 gives you many salable features but you must be able to explain them in terms of more benefits than your prospect can receive for a different expenditure of his money.

### Get Favorable Action

Your purpose in making a sales call is to GET AN ORDER. What is the simplest way to get an order? ASK FOR IT! If he hedges, perhaps you should summarize the benefits he will receive.

### CUSTOMER MUST SUPPLY

A dust-free, well ventilated room which provides adequate space for the initial installation, as well as future growth, must be supplied by the customer. Your engineering department can best advise as to the exact dimensions of such a room; however, a system with an ultimate requirement of 200 lines requires an approximate space 13' x 16' and one with 400 lines ultimate requires an approximate space of 12' x 18' with a ceiling height of 8'.

### RATES

Installation charges . . . . .

Monthly charges . . . . .

300 PABX common equipment . . . . .

Turret . . . . .

Stations . . . . .

Optional features . . . . .

### REFERENCE PUBLICATIONS

#### Technical:

• TB-504-608 Type 300 PABX Description and Operation

• TB-504-607 Type 300 PABX Installation and Testing

#### Sales Aids:

• C-1039 AE Dial Telephone System

• C-1047 Attendant's Instruction Booklet

• C-1069 Station User Instruction Booklet

#### Catalog Information:

• Catalog 11,000 Section T

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## TYPE 310 PABX



**Type 310 PABX Turret**

### DESCRIPTION

The Type 310 is a modern, expansible, step-by-step PABX designed to provide Centrex Service features as well as a wide variety of standard PABX services, all with standard two-wire telephones. This PABX is available with cordless turret (or optional console) operation and concentrated distribution of incoming trunks. Attendant-seeking traffic is concentrated and distributed to idle attendant positions in rotation. Only one call at a time is routed to a particular attendant.

Type 310 PABX's may be arranged for Centrex CU service, Centrex CO service, or Conventional PABX service, utilizing concentrated distribution of incoming trunks. When the Type 310 is arranged for Centrex CU service, the switching equipment and attendant facilities are located on the customer's premises. This arrangement permits the addition of Centrex Service features to an existing PABX, and retention of all service features presently in use by the customer. Centrex CO service provides an arrangement whereby the switching

equipment is located on the telephone company premises; only attendant facilities are located on the customer's premises. This arrangement makes it possible to serve up to four customers effectively from a central location. When the Type 310 is arranged for conventional PABX service, both switching equipment and attendant facilities are located on the customer's premises. This arrangement is suitable for general PABX use where the system requires a large number of trunks (generally 50 or more) with modern turret operation.

Desk model attendant turrets featuring a modern design to match the modern performance of the turret are provided in attractive beige cases. These turrets, measuring only 17-1/2" wide, 10" deep and 5" high, contain lighted push-buttons with associated supervisory lamp to provide supervision of the selected link or trunk. Turrets are available equipped with 12 non-locking push-buttons that serve to connect the position to specific trunks or links, or equipped with 12 and wired for 30 push-buttons. The turret features a touch-calling keysender, and a light weight handset is normally provided.



## OPTIONAL

The attendant turret is available in a jade green case on special order; and, available on special order are dial-equipped turrets.

Also available as an option is a handsome beige floor console equipped with 12 and wired for 30 push-buttons to connect the position to specific trunks or links.

The console may include a station-busy lamp field with a 400-line capacity, which can be furnished in 100-line increments. Ticket pockets for filing messages, charges, etc. can also be supplied in lieu of busy-lamp fields.

## FEATURES

### Standard

1. Three-, four-, or five-digit dialing between stations.
2. Standard two-conductor telephones are used which permit use of special station apparatus such as speakerphones, key telephones, etc.
3. CO (central office) installations permit remote turret operation, and multi-customer arrangements with up to four customers sharing a part of the system switching equipment.
4. Concentrated distribution of incoming trunks, permitting use of small compact turrets.
5. Cordless turret operation, with a touch-calling keyset, provides for quick and easy handling of both incoming and outgoing calls.
6. Automatic transfer of listed number calls. Listed-number calls are automatically transferred to the attendant when the turret is attended; when unattended, listed-number calls are transferred to a designated station.
7. Recorded message intercept of calls. Recorder-announcers are used to provide a recorded announcement when a vacant or changed number is called.

### Optional

1. Two additional cordless attendant facilities are available:

- a. A turret wired for 30 and equipped with 12 trunk keys.
- b. A cordless floor console wired for 30 and equipped with 12 trunk keys. This unit may also be equipped with a busy-lamp field having a capacity of up to 400 lines, in 100 lamp increments, or ticket pockets, or blank panels.

2. Extendable Information Trunks may be provided to permit station users to place outgoing toll calls through the attendant by dialing "0" and staying on line while the attendant places the call.
3. Stations may be divided into three different classes of service groups: restricted, non-restricted, and partially restricted.
4. Various types of tie, WATS, and FX trunks can be provided to connect the 310 with other PABX's or distant central office exchanges.
5. Direct-Inward-Dialing (DID) trunks which allow a central office caller to dial directly to a PABX station without going through the attendant may be supplied.
6. Toll Restriction which prevents local stations from making toll calls may be provided. Arrangements can be built-in to permit certain stations to by-pass the toll restrictors.
7. Dial "1" method is used to transfer a trunk call or to consult with another inside station while on a trunk call.
8. Three types of conference set ups are available on the 310:
  - a. A two-station, one-trunk conference which is established by the station user is possible when dial "1" transfer is provided.
  - b. Meet-me type conference, where all the parties concerned dial into the conference circuit at pre-arranged time.
  - c. Progressive (attendant controlled) conference where the operator dials each party in turn through a conference circuit to connect them together.

9. Attendant Recall features on both DID and DOD calls; station user recalls attendant by dial "0" method.

station answers, replace handset and the call will be transferred automatically.

10. Attendant-controlled Camp-On-Busy informs a busy station that a trunk call is waiting. The trunk call automatically rings the busy station as soon as it becomes idle.

To Consult With Another Station While Holding A Trunk Call - dial "1" to place trunk call on hold; dial desired station; when consultation is completed and the other inside party hangs up, you will be automatically reconnected to the outside call.

11. Attendant Busy Override permits the attendant to break in on a busy condition and inform the desired party of an important incoming call.

To Establish Conference With Another Station While On A Trunk Call - dial "1" to place trunk call on hold; dial desired station; with called station on line, dial "1" to add trunk party to 3-way conference connection.

12. Immediate Ringing saves call completion time by forwarding a splash of ring immediately when a called line tests idle.

To Call Or Recall Your Attendant - dial "0." This can be done even if you are talking to an outside party.

13. Public Address Cut-In can be provided to allow a local station to dial-access a public address system and broadcast an announcement.

Camp-On-Busy - If you hear a "splash" of tone while using your telephone, this indicates that you have another outside call waiting. When you hang up, your phone will ring and you will be connected to this incoming call.

14. Code Call provides up to 125 codes to alert a person, away from his telephone, that a call is waiting, by sounding his code signal.

To Answer Incoming Call With Universal Night Answer And Transfer (No Attendant) - dial assigned digit, usually "8," when audible signal is heard; call may be transferred as described above. This method may be used in daytime to answer trunks when system is not equipped with turret.

15. The 310 PABX may be equipped with Executive Right Of Way feature which allows an executive to break in on a busy connection.

To Use Predetermined Night Answer - Certain stations are individually connected to central office trunks at night. These stations can answer incoming calls and place outgoing calls, but they cannot transfer or use other system features during the night answering period.

16. Dictation Links are available which permit a user to dial access a dictating machine and control it by dialing additional digits.

17. Individual station billing.

Code Call (optional) - dial code call access digit, usually "6," then dial the code number of the party to be reached. The party being paged can be connected to the calling party by dialing the code call answering number.

18. The Type 310 PABX can be equipped with either predetermined nite answer or universal nite answer.

Meet-Me Conference (optional) - Stations desired in the conference connection are notified to dial the conference digit. An incoming trunk call can be put into the conference by dial "1" transfer method, or by the operator.

## HOW IT OPERATES

### Station Operation

Outgoing Trunk Calls - dial city access digit, usually "9." Restricted stations must dial turret attendant.

### Turret Operation

To Transfer Trunk Call To Another Station - dial digit "1," then number of the station to which the call is to be transferred. When the

An attendant can perform all of the following

functions with the aid of the modern turret or console supplied with the 310 PABX:

Answer Incoming Trunk Calls

Extend Incoming Trunk Calls to Local Stations

Hold Incoming Trunk Calls

Split to Extension and to Trunk

Accept Assistance Recalls from Stations (Optional)

“Camp” A Trunk Call on A Busy Connection (Optional)

Break-In On A Busy Connection (Optional)

Place Outgoing Trunk Calls for Local Stations (Optional)

Make an Intercom Call for A Local Station

Establish Night Service Connections

Establish A Trunk and Local “Meet-Me” Conference (Optional)

Establish A Trunk and Local Progressive-Selection Conference (Optional)

Code A Local Party Via Code Call (Optional)

## **CONSIDERATIONS (Limitations)**

### **General**

The Type 310 PABX is a modern communications system designed for businesses and places of lodging which require a sophisticated telephone system. For a customer to be completely happy with the 310, he must need and understand the various modern features which go into the make-up of the system. A large automatic PABX such as the 310 is best utilized when the local station users are allowed to place their own outgoing calls and perform other telephone operations without the aid of the attendant. The customer must be properly informed and conditioned to the method of operation of the 310 to get the most out of it. Remotely operated attendant turrets must not be over 1200 ohms loop resistance away from the equipment room.

### **Capacity**

The 310 PABX is generally designed for customers with an initial need of 50 or more trunks, and where expansion is eminent. If a customer's ultimate requirements may never

exceed 50 trunks, a key per trunk packaged system such as the 300 might be better applied.

The Type 310 has unlimited expansibility. It will perform just as well in systems of 50 trunks or 2000 trunks. As many as 25 attendant turrets may be supplied for any installation.

### **Availability**

The Type 310 PABX is an engineered system. A delivery schedule should be ascertained before making definite commitments to customers.

## **THE MARKET**

The market for the Type 310 PABX includes all customers who have or will have a need for 50 trunks or more. The unique features, expansibility, and flexibility of the 310 permit it to be tailored to the needs of any customer group.

The Type 310 can easily be designed for individual station in-dialing, out dialing and billing while still providing the intra-communications and transfer capability of a PABX. Because of this capability of the 310 it is ideally suited as an offering for CENTREX, both CO and CU.

Universities, large manufacturing and large office buildings are prime targets for the 310 PABX, but any customer who has the following requirements is a good prospect:

1. A great deal of direct inward dialing.
2. A great deal of direct outward dialing.
3. A desire for individual station billing of toll calls.
4. A desire to reduce attendant requirements.

Using the 310 as a CO CENTREX will almost eliminate the need for a customer to provide space for equipment. A CO CENTREX type of installation also allows up to four customers to be served from the same equipment thus making it more economical for them.

In summary it can be said that the Type 310, besides being used as a large conventional PABX, is also well suited for use as a CENTREX offering. In fact, it has been the most popular CENTREX offering in the independent areas since its inception in 1963 and most of the 310's sold to date have been used for CENTREX.

## FEATURES AND BENEFITS

The following are some general benefits to users of 310 PABX's. These should be translated into the specific benefits each prospect can expect from his 310 system.

### Features

### Benefits

Cordless turret operation for quick easy handling of incoming calls.

- A) Saves money--requires less full time attendant facilities.
- B) Builds better customer relations--good impression of business through fast and proper answering by attendant.
- C) Saves valuable office space--turret can be placed on a desk.

Direct Outward Dialing (DOD) allows station users to place their own calls privately and quickly.

- A) Saves money--the station user does not have to wait for the attendant and this saves valuable time in placing calls.
- B) Better employee relations--no delay, confusion, or irritation.
- C) Provides greater privacy--calls are placed through impersonal automatic equipment.

Indefinitely expandable to meet all future growing needs.

- A) Saves money--fast growing customer does not have to pay installation charges every couple of years.
- B) Saves time and inconvenience--customer always has PABX service; does not have to wait for the old system to be removed and the new system to be installed.
- C) Stops confusion of attendant--she does not have to learn a new turret operation every time some lines or trunks are added to the PABX.

An inside call can be made automatically from any station.

- A) Enhances employee efficiency--more people can get more done by telephone.
- B) Saves walking--avoids "visiting" and "bull sessions"--minimizes work interruptions.
- C) Saves money--customer does not have to have a separate intercom system.

Concentrated trunking increases the capacity of an attendant position.

- A) Saves money--less turret positions are needed which saves money on leasing the equipment and paying attendants.
- B) Less chance of confusion--only one call at a time can come into the turret--the attendant does not have to answer two or more calls at once.
- C) Greater privacy--once the call is extended the attendant has no access to it.

### Additional Features

### Additional Benefits

Nite Service Features

- Provides 24 hour telephone service without the cost of an attendant.

Two Classes Of Restriction

- Offers full communications, flexibility with controlled expense.

Rotary Group Hunting

- Gets incoming calls answered fast--builds efficient company image.

Message Waiting

- Employees know immediately when a message is waiting at the switchboard without bothersome calling of the station.

Direct Inward Dialing (DID)

- Almost eliminates the need for an attendant, and provides more privacy.

Dial "1" Transfer

- Takes bothersome transfer function away from attendant.

Uses Standard Two Wire Telephone

- Saves money by not requiring special station apparatus.



## SALES STRATEGY

Any good sales program consists of thorough preparation, a good presentation, and combined follow through. The following are some pointers for a successful sale of the 310.

### Preparation

Being a large system, any 310 that is placed in service will bring in a good deal of revenue. Since it is a large revenue producer it will be worth your while to spend a good deal of time making an exhaustive preparation to market the 310. There are three steps which can be followed to ferret out possible 310 prospects and sell them on this system:

1. Selection of Potential Prospects--The first step in your program should be a review of all large PABX system customers. Prospects will be found in one of the three classes who (a) are new business customers, (b) have outgrown their present, smaller systems, (c) already have a large system but are in need of more modern services.
2. Review of Prospects--Gather together all the available information on a possible prospect. If he is already a customer, copies of past presentations and market cards will give you a basic understanding of his present situation.

The next step is to survey the customer at his premise to find out what he expects in the way of communications and how his business operates. This will give you a thorough knowledge of his situation and expectations. This survey can be made either as a company initiated request or as part of other activities concerning the customers services.

3. Analysis--A comprehensive analysis should then be made of the prospect's communications requirements. Using a "Communications Usage and Proposal Survey" form, or something similar, determine a prospect's present situation such as his methods of operation, what services he now has, future growth expectations and detailed technical data. Traffic studies should be made to determine trunking requirements and inter-com usage.

### Presentation

It is recommended that a written proposal be prepared prior to making the actual presentation to the customer. After reviewing all the information made available during your preparation the traffic and/or engineering people

should be contacted for their recommendations. Doing this will avoid the embarrassment of proposing a system that is technically infeasible or impractical.

The climax of all the usage prospecting and consultation is the actual presentation to the customer. It is recommended that the oral presentation be supplemented by a written proposal including all the sales brochures available and any other literature which the customer would be interested in. These can be referred to during the presentation and will give the customer something in writing to refer to should he want to confirm more important details afterward.

### Follow-Up

After the sale the responsibility of the sales department does not end. It is your responsibility to service the customer, to make sure that the installation is completed on time and that your customer and his people are properly trained in the use of their new PABX system. In this way you will leave the door open for future sales to this customer and be able to refer to him as a satisfied user. A satisfied customer is the gauge of a successful sale.

## CUSTOMER MUST SUPPLY

A dust-free, well-ventilated room which provides adequate space for the initial installation, as well as future growth, must be supplied by the customer. Your Engineering Department can best advise as to the exact dimensions of such a room; especially, if switching equipment is to be located on customer premises as in the case of a CU or Conventional 310 PABX system.

### RATES

Installation Charges .....

Monthly Charges

310 PABX Common Equipment .....

Turret .....

Stations .....

Optional Features .....

## REFERENCE PUBLICATIONS

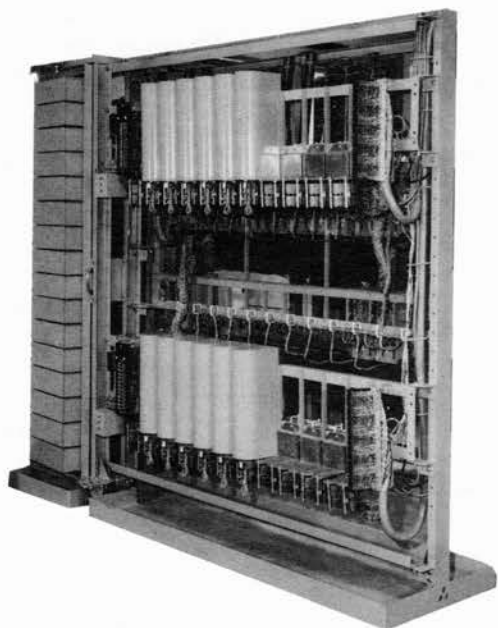
### Technical:

- TB-810-350 Type 310 P-A-B-X Description and Operation
- TB-504-348 Type 310 P-A-B-X Installation and Testing

# COMMUNICATIONS SERVICE GUIDE

CSG  
100.024  
Issue 1

## TYPE 320 PABX



Type 320 PABX Switching Equipment.



Type 33-A-19 Attendant's Cabinet.

### DESCRIPTION

The Type 320 PABX is an expansible, line-finder step-by-step PABX which utilizes cord type attendant facilities with a jack and lamp appearance for each trunk and station on the system. Cord type attendant facilities may be provided by a single position 33-A-19 attendant's cabinet or by multi-position 33-A-19 attendant's cabinets. A variety of standard services are provided, including direct outward dialing, attendant recall and transfer, and rotary hunting connector groups. In addition, CENTREX service features such as direct inward dialing, in-dial transfer, and listed number night transfer are available.

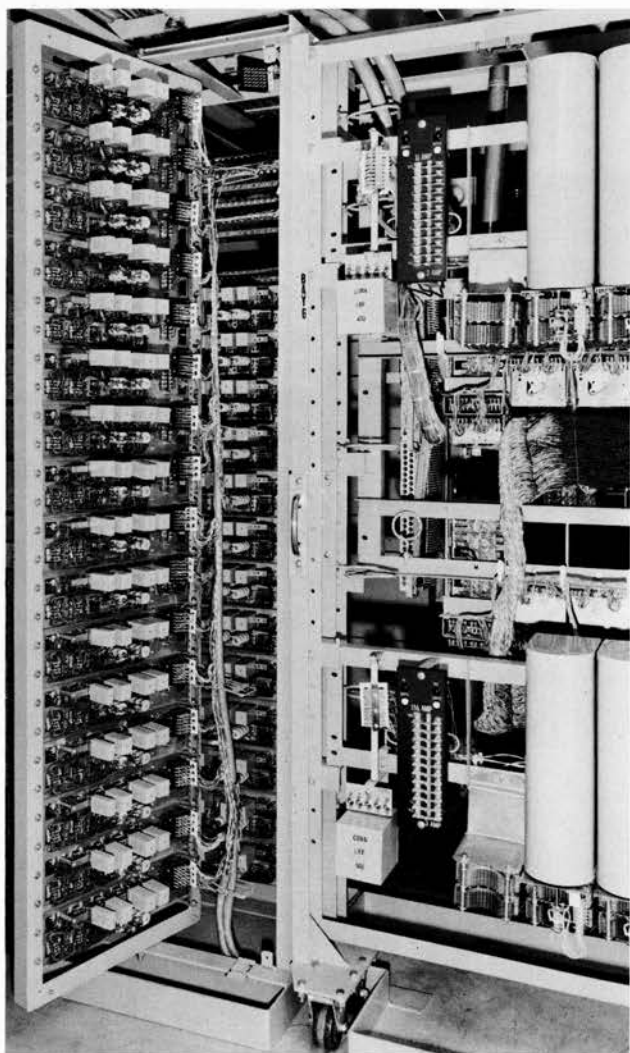
The automatic switching equipment is normally provided on 10-switch shelves which mount on 6' 6" double-sided and gated trunk boards

74 1/2" wide. The 10-switch shelves can also be mounted on universal single sided trunk boards. A double sided relay rack 21 1/2" wide, pivoted to swing open, is provided for trunk circuits. The power equipment is mounted on a single-sided power rack 25 1/2" wide. All racks, except the universal trunk board are 78" high and 23" deep.

Normally a 33-A-19 attendant's cabinet provides attendant's facilities for the 320 PABX. It can accommodate up to 15 cord circuits and 400 lines (200 lines if designation strips are used). The cabinet comes equipped with either handset or headset. The cabinet is of steel frame construction with a wooden exterior finished in either dark mahogany or cinnamon blond. It measures 51" high, 26 3/10" wide and 34 3/8" deep at the key shelf.

AUTOMATIC ELECTRIC COMPANY





Swing-out Portion of Switch Frame.

## OPTIONAL

The Type 33-A-19 attendant's cabinet is also available in two additional cabinet styles, junior multiple and senior multiple, depending on the number of stations to be served. The junior multiple cabinet is a single position, two panel section for installations over 400 lines. This cabinet, on a three panel multiple basis, can accommodate 600 lines with designation strips, or 1200 lines without designation strips. By the addition of single position head and foot sections, the jacks can be installed on a four panel multiple basis, thus increasing the capacity to 800 lines with designation strips, or 1600 lines without designation strips.

The senior multiple cabinet is essentially a junior multiple cabinet, but with a greater capacity. This cabinet, on a four panel multiple basis, accommodates up to 3200 lines (without designation strips). By the addition of single position head and foot sections, the jacks can be installed on a five panel multiple basis, thus increasing the capacity to 4000 lines (without designation strips).

## FEATURES

### Standard

1. Three, four, or five digit local dialing.
2. Standard two-conductor telephones are used.
3. Attendant recall by momentarily depressing the hookswitch.
4. Direct Outward Dialing (DOD) trunks which allow a local station to dial a central office number, after dialing a central office trunk access digit, without the attendant's assistance.
5. Rotary Group Hunting, whereby when the primary station of a predetermined group is busy, the connector will hunt for the next idle station in that group.
6. The attendant may set up a conference of up to four stations and one central office trunk.
7. Inward Information Trunks enable the attendant to extend calls from restricted stations to central office trunks.
8. All inward calls are received by the attendant and extended to the desired local station.

### Optional

1. Power Failure Transfer, whereby predetermined stations are connected directly to certain trunks in the event of commercial power failure.
2. The usual array of tie trunks, FXtrunks and Dedicated Network trunks are available.
3. Meet-Me Conference, whereby all parties to be included dial the conference number at a prearranged time.
4. Conference Repeater, used in conjunction with Meet-Me Conference circuit, to maintain transmission level.
5. Fixed Group Conference, whereby all stations of a predetermined 10-station group are accessed by dialing an established "conference" number.

6. Code Call, to provide signal codes to alert a person, who is away from his telephone, that a call is waiting. He may answer the call from the most available telephone by simply dialing the code answer number.
7. Executive Right-of-Way, to permit an executive to override a busy condition and talk with either party, via a special conversation channel.
8. Public Address Cut-In, which allows a local station to access a paging system by dialing a connector terminal.
9. Paging Telephones are available whereby a worker can move about his area while carrying on a telephone conversation.
10. Dictating service, to allow a user to dial into a dictating machine and control it by use of the telephone dial.
11. Toll Restriction, to prevent unauthorized placement of toll calls.
12. Three classes of restriction are obtainable through the use of wiring options on first selectors:
  - a) Non-restricted stations have access to all outlets or levels of the system.
  - b) Partially restricted stations have limited access to the outlets and levels of the system.
  - c) Fully restricted stations can only access other local stations and the attendant.
13. There are two types of Optional Night Service available:
  - a) Universal Night Answer and Transfer, whereby a common audible signal sounds when a trunk call comes in to an unattended cabinet. The call can be answered from any station by dialing the predetermined digit (usually 8).
  - b) Predetermined Night Answer (No Transfer), whereby a certain trunk is directly connected to a predetermined station so that the station may receive and place trunk calls.
14. Direct Inward Dialing trunks, to permit incoming calls to access local stations directly.
15. Double Lamp Supervision, to signal attendant that the local station has restored or, upon repeatedly depressing the hookswitch, that attendant recall is desired. (This feature not available when automatic flash recall is provided.)
16. Automatic Flash Recall, to signal attendant, by momentarily depressing the hookswitch once, that attendant recall is desired. (This feature not available when double lamp supervision is provided.)
17. Automatic ring, manual start, whereby momentary operation of desired RING key by attendant will cause called station to ring interruptedly until answered.
18. Station Busy Lamps on the switchboard tell the attendant when a line is busy without testing.
19. Message Waiting (motel systems only) visually indicates, by a flashing lamp at the telephone, that someone has called and upon receiving no answer left a message with the attendant.
20. Message Metering (motel systems only) counts and records the number of local-exchange calls completed from local stations, thus providing a means of billing.
21. Special Service Repeater (motel systems only), to access special services such as reservations, room service, dining room, etc., by dialing an established number.

## HOW IT OPERATES

### Station Operation

- Station-to-Station local calls -- lift the handset and dial.
- Outgoing trunk calls -- dial city trunk access digit, usually "9," then the desired number. Restricted stations must dial the attendant ("0") to make an outgoing trunk call.
- Transferring an incoming call -- depress and release hookswitch several times to recall the attendant. When flashing recall is provided, depressing the hookswitch once will cause the front cord supervisory lamp at the attendant's cabinet to flash until the attendant answers.
- To establish a conference -- dial the attendant ("0") and request, by station number, the desired conferees.
- Code Call (optional) -- dial code call access digit, then dial the 2-digit code number of the party to be reached. The party being paged can be connected to the calling party by dialing the code call answer number.
- Meet-Me Conference (optional) -- stations desired in the conference connection are notified to dial the conference digit. An incoming trunk can be connected in the conference by the attendant.

### Attendant Cabinet Operation

An attendant can perform all of the following functions with the aid of the Type 33-A-19 attendant cabinet supplied with the 320 PABX:



- Answer Listed Number Calls
- Transfer In-dial Calls
- Answer Incoming Trunk Calls
- Extend Incoming Calls to Local Stations
- Hold Incoming Trunk Calls
- Split to Extension and to Trunk
- Accept Assistance Recalls from Stations
- Break In on a Busy Connection
- Place Trunk Calls for Local Stations
- Establish a Night Service Connection
- Code a Local Party Via Code Call (optional)
- Establish a Trunk and Local "Meet-Me" Conference (Optional)

## CONSIDERATIONS (Limitations)

### General

An attendant cabinet type system is of most value to a customer and operates at peak efficiency when the local station users are allowed to place their own outgoing trunk calls and perform other telephone operations without the aid of their attendant. Since many of these PABX's replace manual PBX systems, the customer must be informed and properly conditioned for this change in their method of operation.

### Capacity

Line capacity depends on the type of attendant facilities available. It is inadvisable to put in a Type 320 with more than 2 positions.

The stock 33-A-19 attendant's cabinet has a capacity of 200 lines with designation strips, or 400 lines without. If the 320 is equipped with a junior multiple attendant's cabinet (non-stock) each cabinet can handle 600 lines with designation strips, or 1200 lines without. The senior multiple (4 panel) attendant's cabinet can be equipped with 800 lines when using designation strips, or 1600 lines when not using designation strips.

If it is believed that the system will soon outstrip 1600 lines, or if excessive trunking is involved the turret operated Type 310 PABX should be seriously considered.

### Availability

Some of the previously described optional services are only available on specially engineered 320 PABX's. Current delivery should be determined before making commitments to customers.

## THE MARKET

The market for the 320 PABX includes any business customer who has or will have in

the near future an initial requirement for approximately 50 or more stations and a future requirement for expansion to 100 lines or more, and who wants cord type attendant facilities.

The market is present either in the form of a customer who has outgrown a smaller system or a customer who wants a new system of the 320 type. These would include:

- Large hotels and motels
- Department stores
- Municipal utility organizations
- Manufacturing plants
- Hospitals
- Universities
- Large government agencies
- Court houses
- Warehouses
- Recreation centers

It is estimated that a good 5 1/2 per cent of business customers are in need of a large PABX system. Some of that 5 1/2 per cent will surely want cord type attendant facilities and thus be in the market for a 320.

## SALES STRATEGY

Any good sales program consists of thorough preparation, a good presentation, and a combined follow through. The following are some pointers for a successful sale of the 320 PABX.

### Preparation

Being a large system, any 320 that is placed in service will bring in a good deal of revenue. Since it is a large revenue producer it will be worth your while to spend a good deal of time making an exhaustive preparation to market the 320. There are a number of steps which can be followed to ferret out possible 320 prospects and sell them on this system:

- Selection of Potential Prospects -- The first step in your program should be a review of all large PABX system business customers. Prospects will be found in one of the three classes who (a) are new business customers, (b) have outgrown their present, smaller systems, (c) already have a large system but are in need of more modern services.
- Review of Prospects -- Gather all the available information on a possible prospect. If he is already a customer, copies of past presentations and market cards will give you a basic understanding of his present situation.

## FEATURES AND BENEFITS

Following are some general benefits to users of a 320 PABX. These should be translated into the specific benefits each prospect can expect from his installation.

Features	Benefits
Wood finished attendant's cabinet is attractive way to control communications.	<ul style="list-style-type: none"> <li>- A) Adds to office prestige--dark mahogany or cinnamon blond finished cabinets enhance beauty of any office decor.</li> <li>B) More control--a cord board offers more control over incoming calls. Inter-communications can be more closely supervised.</li> <li>C) Versatile--a cord board on an automatic system gives customer the best of PABX and PBX.</li> </ul>
DOD (Direct Outward Dialing) permits fast and direct placement of outside calls without attendant.	<ul style="list-style-type: none"> <li>- A) Saves employee time (money)--no need to wait for operator.</li> <li>B) Better employee relations--no delay, confusion or irritation.</li> <li>C) Provides greater privacy--calls are placed through automatic equipment.</li> </ul>
Attendant controlled transfer with hook-switch recall provides practical control of transfer, consultation, and conference.	<ul style="list-style-type: none"> <li>- A) Better customer relations--operator control of transfer reduces chance that an incoming call will be transferred to the wrong party.</li> <li>B) Save employee time--operator normally transfers the call after employee flashes hookswitch. He does not have to look up number of other party.</li> <li>C) More control--once a call comes into the house the operator has complete control of it.</li> </ul>
An inside call may be placed from any station by dialing 3, 4, or 5 digits.	<ul style="list-style-type: none"> <li>- A) Enhances employee efficiency--more people can get more done by telephone.</li> <li>B) Saves walking--avoids visiting and "bull sessions"--minimizes work interruptions.</li> </ul>
Complete expansibility provides years of uninterrupted service.	<ul style="list-style-type: none"> <li>- A) Saves time--when the present system is outgrown there is no need to interrupt telephone service while a new system is put in.</li> <li>B) Saves money--does away with new installation costs.</li> </ul>

Additional Features	Additional Benefits
Night service	- Full 24-hour telephone service.
Power failure transfer	- Insures customer service to central office.
Free maintenance	- Provides control over operation expenses.
Three classes of service	- Offers full communications flexibility with controlled expense.
Extendable information trunks	- Saves time for both operator and employees.
Rotary service for switchboard stations	- Calling party can be connected with the right department without the operator trying each line.
Message metering	- For quick billing in hotels or motels.
Message waiting	- For convenience of guests in hotels or motels.

The next step is to survey the customer at his premise to find out what he expects in the way of communications and how his business operates. This will give you a thorough knowledge of his situation and expectations. This survey can be made either as a company initiated request or as part of other activities concerning the customer's communications services.

- Analysis -- A comprehensive analysis should then be made of the prospect's communications requirements. Using a "Communications Usage and Proposal Survey" form, or something similar, determine a prospect's present situation such as his methods of operation, what services he now has, future growth expectations and detailed technical data. Traffic studies should be made to determine trunking requirements and intercom usage.

### Presentation

It is recommended that a written proposal be prepared prior to making the actual presentation to the customer. After reviewing all the information made available during your preparation, the traffic and/or engineering people should be contacted for their recommendations. Doing this will avoid the embarrassment of proposing a system that is technically infeasible or impractical.

The climax of all the usage prospecting and consultation is the actual presentation to the customer. It is recommended that the oral presentation be supplemented by a written proposal including all the sales brochures available and any other literature which the customer would be interested in. These can be referred to during the presentation and will give the customer something in writing to refer to should he want to confirm the more important details afterward.

### Follow - Up

After the sale is completed the responsibility of the sales department does not end. It is your responsibility to service the customer, to make sure that the installation is completed on time and that your customer and his people are properly trained in the use of their new

PABX system. In this way you will leave the door open for future sales to this customer and be able to refer to him as a satisfied user. A satisfied customer is the gauge of a successful sale.

### CUSTOMER MUST SUPPLY

A dust free, well ventilated room which provides adequate space for initial installation, as well as future growth, must be supplied. Your Engineering Department can best advise as to the exact dimensions of such a room; however, a system with an ultimate requirement of 100 lines requires an approximate space of 11 feet by 11 feet, and one with 400 lines ultimate, 13 feet by 18 feet, with a minimum ceiling height of 8 feet. Dimensions for larger than stock systems can be obtained via an engineering representative.

### RATES

Installation Charges .....

Monthly Charges

320 PABX common equipment .....

Cabinet .....

Stations .....

Optional features .....

### REFERENCE PUBLICATIONS

#### Technical:

- TB 504-614 Type 320 PABX Description and Operation
- TB 504-615 Type 320 PABX Installation and Testing
- CI 504-109 Type 320 PABX Attendant's Instructions
- TB 650-642 Type 33-A-19 Attendant Cabinet

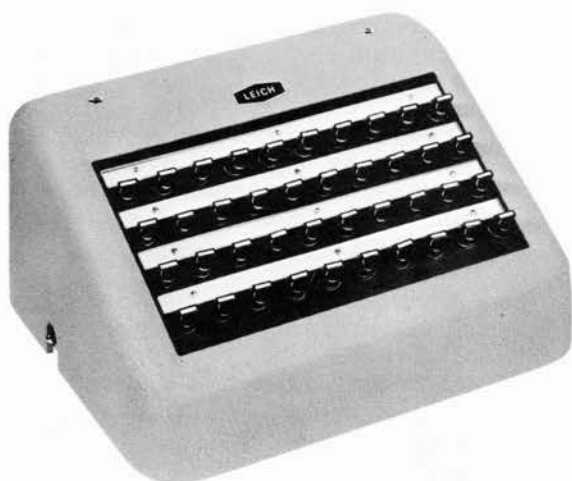
#### Catalog Information:

- Catalog 11,000 Section T

# COMMUNICATIONS SERVICE GUIDE

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100.025  
Issue 1

## TYPE 40M AND TYPE 80M PABX'S



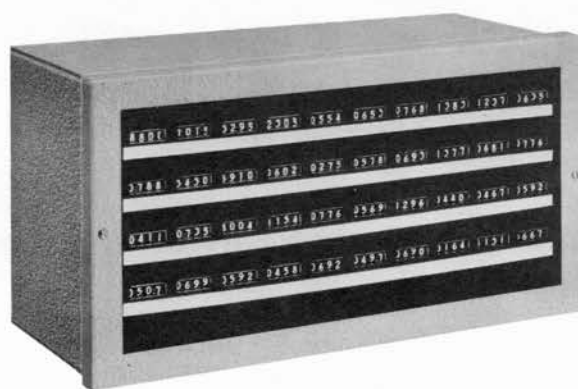
**40M Message Waiting Turret**

### DESCRIPTION

The 40M and 80M PABX's, designed especially for motels and hotels, are all-relay, common control PABX's capable of serving a maximum of 40 and 80 local lines, respectively.

The 40M PABX has a capacity of 6 city trunks, 6 toll diversion adapters, 2 one-way attendant's inward trunks, an attendant's outward trunk, and a maximum of 40 lines (one of which is used as an attendant's outward trunk). A maximum of 6 local links are available. The board operates at 48 volts with automatic or common battery central offices. The trunk loop limit is 1500 ohms or the central office limit, while the line limit is 1000 ohms, excluding the station instrument.

The 80M PABX has a capacity of 10 city trunks, 10 toll diversion adapters, 2 one-way inward and 1 one-way outward attendant's trunks and a maximum of 80 lines (one of which is used as the outward attendant's trunk). A maximum of 12 local links are available. This board also operates at 48 volts and has the same specified operating limits as the 40M.



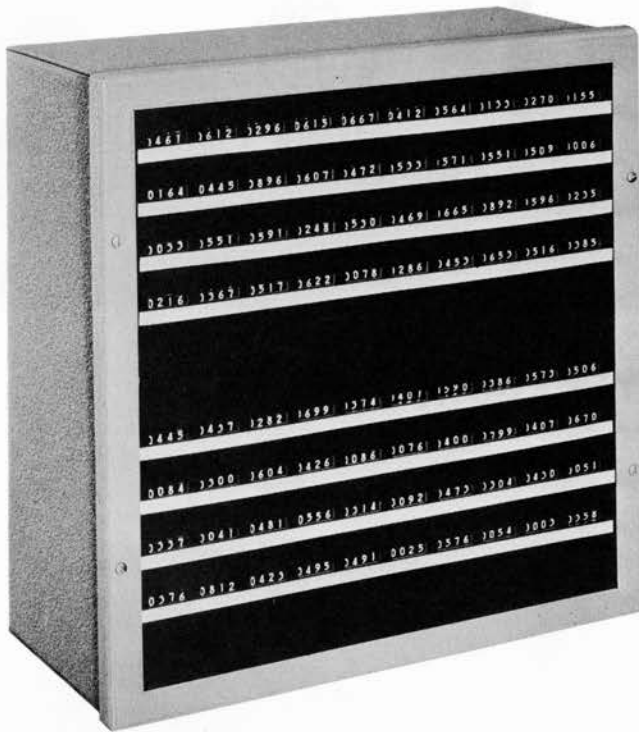
**40M Message Register Cabinet**

The PABX's use standard two-conductor telephone instruments as station apparatus and can accommodate special equipment such as key phones or speakerphones. The 40M has two digit local dialing, while the 80M has three digit local dialing. Both have single digit access to special features. The 40M has 1 extra position for mounting optional equipment while the 80M has two additional positions.

Both the 40M and 80M use the same 12-trunk attendant's turret (a 26-trunk attendant's turret for use with the 80M is optional). The turret is assembled in an attractive beige, grey or green polystyrene casing, 11" wide, 9" deep and 6" high. The turret control panel slopes toward the attendant to make all lamps clearly visible, and place all controls within easy reach of the attendant. A jack-in handset is mounted on the side of the turret. (This handset can be replaced with an optional jack-in headset.)

The 40M switching equipment is completely enclosed in a grey metal cabinet 48" wide, 72" high and 15" deep. The cabinet has two lift-off, hinged doors on both front and rear to allow easy access to the equipment mounted





## 80M Message Register Cabinet

within. The bay can be mounted on a dolly assembly (optional) for mobility and convenience. The 80M bay is an expanded version of the 40M and measures 72" wide, 72" high and 15" deep. With the exception of the physical dimensions, it retains the same outward appearance as the 40M.

### OPTIONAL

An auxiliary cabinet which measures 24" wide, 72" high and 15" deep can be added to either PABX to house additional equipment. This unit harmonizes with the switchboard bay and can also be furnished with a dolly assembly.

A busy lamp field with a capacity of 40 lines (80 lines with the optional 20-trunk turret) may be added to the turret. This unit lets the attendant know immediately which lines are busy.

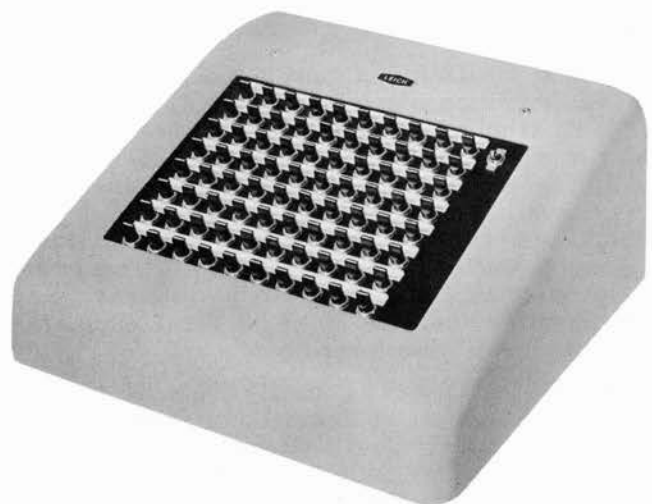
Message waiting, to let a guest know that a call is waiting; and, message metering, to indicate the number of local trunk calls a guest completes, can be supplied with both the 40M and 80M.

### FEATURES

#### Standard

1. Local calls are made by dialing only two (40M) or three (80M) digits.

2. Local links are held on inside station calls only, and dropped upon connection in other cases. Thus, a fully equipped 80M can accommodate 22 simultaneous conversations, and a fully equipped 40M can accommodate 12 simultaneous conversations.
3. The station loop limit is 1000 ohms, excluding the station instrument.
4. Trunks may be split into three groups which permit access to different central offices and tie trunk groups.
5. Predetermined Night Answer, whereby a certain trunk is directly connected to a predetermined station so that the station may receive and place trunk calls. These stations must be equipped with a grounding pushbutton.
6. With power failure transfer, predetermined stations, equipped with grounding pushbuttons, are connected directly to certain trunks in cases of commercial power failure.
7. The attendant may be recalled by repeatedly depressing the hookswitch.
8. Two one-way attendant's information trunks.
9. An outward attendant's trunk so the turret can be used as a regular station line.
10. The power pack is self-contained so that the only equipment necessary is the switchboard bay itself.



## 80M Message Waiting Turret

## Optional

1. Message metering indicates the number of completed trunk calls originated by each guest, according to room number.
2. Message waiting service may be used to inform a guest that a message is waiting at the turret or front office. The guest is notified by means of a flashing lamp on the room telephone controlled by a key at the message waiting cabinet.
3. Toll diversion adapters monitor the first three digits of outgoing calls. When a toll call is attempted, it is diverted back to the turret attendant. By a wiring option, individual stations may bypass the toll restrictor. Toll adapters are usually mounted in an auxiliary cabinet since one adapter is needed for each trunk.
4. A dolly assembly with heavy duty wheels can be placed under the switchboard bay, making it easy to move around for cleaning and maintenance.
5. A line busy lamp field applique can be placed on the turret to let the operator know when a local station is busy, without extending the call into a busy condition.
6. If desired, the switchboard may be wired for universal night answer so that incoming calls at night may be answered from any telephone. The calls may not be transferred, however, unless the call is extended at the turret.
7. Stations may be restricted from making station-to-station local calls at night (attendant controlled).
8. Code call provides 36 signal codes to inform a person who is away from his phone that a call is waiting. He may answer the call from the nearest telephone by dialing the code answer number.
9. Single digit dialing for special services such as, room service, valet, etc.

## HOW IT OPERATES

### Station Operation

- Station-to-station local calls--lift the handset and dial the desired number.
- Outgoing calls--lift the handset, dial access number, usually "9," and listen for dial tone. Dial desired number. Or, if restricted...dial "0" to get operator.
- If message waiting lamp is flashing, on

the telephone, call the turret operator to receive a message which has come in while you were out.

- Dial single digit for special services such as garage, room service, etc.

### Turret Operation

The turret attendant can place internal and outgoing calls without restriction. She can also:

Hold a Connection

Break-In on a Busy Connection With Warning Tone Superimposed

Extend Trunk Calls

Split to Trunk or Extension

Tell When a Fuse is Burned Out

Receive Information Calls

Switch to Buzzer or Visual Operation or Both

Switch Operation to Predetermined Night Answer When Turret is not Used

## CONSIDERATIONS (Limitations)

### General

The 40M and 80M are designed for small and medium sized motels or hotels which require modern automatic communications services. They are best utilized when guests are allowed to place their own local outgoing calls and are given as much freedom as possible when using the telephone. The motel or hotel staff should be familiar with the 40M or 80M and taught how to operate it efficiently in order for them to be completely satisfied. Investigate their needs. Make sure they require this type of telephone service; smaller motels may be served with a 25M PABX or a small PBX board. Larger places of lodging will require the expansible Type 300-6TM PABX.

### Capacity

The 40M and 80M are non-expansible boards, so care must be taken when selling them that the customer will not outgrow their capacity in the near future.

The 40M has a capacity of 40 lines, 6 links, 6 trunks, 6 toll diversion adapters and 1 optional position for extra equipment such as paging adapter, code call, or special tie trunks.

The 80M can handle up to 80 lines, 12 links, 10 trunks, 10 toll diversion adapters and has

two optional relay bar positions for optional features.

## Availability

The 40M and 80M are stock switchboards and should be readily available; however, some of the above mentioned features do require special engineering. Before making any definite commitments a quick check should be made on the present delivery status of the board.

## SALES STRATEGY

### Prepare For The Sales Call

What present facts do you know about this hotel or motel? Their present communications system? How do they presently (a) answer calls, (b) place calls, (c) handle internal calls, (d) handle billings, (e) inform guests of messages?

Determine the type of patronage. If they handle conventions or business meetings you have an opening for more optional features. If their business is strictly tourist trade perhaps a less sophisticated system is in order.

### Develop A Point Of Interest

Most operators of hotels and motels do not know of all the benefits they can receive from a 40M or 80M. Study your prospect's overall situation and be prepared to cite specific benefits that will help him. Advertising in local newspapers and trade journals would be a great help in acquainting motel managers with the features of the 40M and 80M. Target your sales effort toward what you know your prospect's situation to be. Remember, he wants to know what's in it for him and if you can point out some benefits that will help to clear up his communications problems he will be glad to place the order.

### Anticipate Objections

In advance of your sales call try to anticipate what objections the prospect will have and how you will answer them.

**COST?** A communications system in a hotel or motel is a business tale. It is put there to make money by attracting more guests, and to save money by making telephone usage more versatile and convenient. In your prospect's eyes the benefits of the PABX you are selling must outweigh the cost of the board. Whenever possible show him specific amounts of time and money he will save with a 40M or 80M and, at all times, build up the value of the board in terms of benefits he can use. Tell him about

the success stories of other 40M and 80M users and how that situation fits his. If possible demonstrate these features you are trying to sell.

**COMPETITION?** Due to the structure of the telephone industry you will not have any direct competition from salesmen of other telephone companies, but in reality many salesmen are competing for this motel's dollar. The 40M and 80M have many saleable features but it is up to you to translate these features into benefits which outweigh those he will receive by spending his money elsewhere.

### Follow - Up

After the sale make sure your customer is satisfied. During your planning for this sales call you made certain that a 40M or 80M was the right system for this customer. Now make sure you can add him to your list of satisfied users.

Before promising an in-service date check delivery date so that he will not be disappointed by having to wait longer than you told him.

Be certain that the 40M or 80M is installed correctly so that nothing will go wrong later on.

Be careful to instruct him on how to operate his new switchboard. He should understand the features and the limitations of the switchboard.

Following this three point follow-up plan will insure the success of the sale and will do a great deal for promoting future sales.

## THE MARKET

The 40M and 80M PABX boards are designed for a medium sized motel where it is desirable to have automatic dial communications. These two boards fit into the hotel/motel family of PABX's between the 25 line 25M PABX and the expandable step-by-step systems in the 300, 310 and 320 series.

The 40M and 80M should be sold to hosteleries who:

1. Have a present and foreseeable need for a board the capacities of which are contained in a 40M or 80M.
2. Have groups of people as guests who need a convenient intercom system.
3. Want their guests to dial out on their own.
4. Can benefit from the many features offered by the 40M and 80M.

## FEATURES AND BENEFITS

Following are some general benefits to users of a 40M or 80M PABX. These should be translated into specific benefits each prospect can expect from his installation.

### Features

### Benefits

- |  |  |
|--|--|
| <p>Compact cordless turret permits swift handling of incoming calls.</p>                                   | <p>A) Saves money--does not require full time operator.<br/>         B) Builds better customer relations--good impression through fast and proper answering by attendant.<br/>         C) Saves valuable office space--turret can be placed on a desk or a counter.</p>  |
| <p>DOD (Direct Outward Dialing) permits fast and direct placement of outside calls--without attendant.</p> | <p>A) Provides greater privacy--calls are placed through automatic equipment.<br/>         B) Saves time:<br/>             1) The turret operator can occupy herself with other duties instead of placing calls for guests.<br/>             2) Guests make their own calls quickly and without confusion or irritation.</p> |
| <p>Night answering provides 24 hour telephone service.</p>   | <p>A) Saves money--no need for a turret operator on duty during periods of infrequent calls.<br/>         B) Makes money--guests are more prone to stop at a motel or hotel with 24 hour telephone service.</p>  |
| <p>Station metering keeps an accurate record of outgoing calls.</p>  | <p>A) Saves time--no need to call the local telephone exchange for a record of outgoing local calls.<br/>         B) Improves customer relations--when a guest is ready to check out his telephone bill is always ready.</p>   |
| <p>Message waiting lets a guest know when a message is waiting at the switchboard.</p>                     | <p>A) Improves customer relations:<br/>             1) Guests learn of any waiting messages immediately.<br/>             2) Guests enjoy extra service provided.<br/>         B) Saves time--turret operator need not repeatedly call the room of an absent guest to deliver a message.</p>                                 |

### Additional Features

### Additional Benefits

- |   |  |
|---|--|
| <p>Two or three digit local dialing lets guests talk to each other without leaving their rooms.</p> | <p>- For convenience when serving conventions and sales meetings.</p>                            |
| <p>Relatively low monthly rental fee with free maintenance.</p>                                     | <p>- Provides control over operating costs.</p>  |
| <p>Toll diversion adapters prevent unknown toll calls.</p>  | <p>- Saves time and money because every toll call is caught before it is made.</p>               |
| <p>Line busy lamp field lets the operator know which stations are busy immediately.</p>             | <p>- Saves time because the operator does not have to extend the call and get a busy signal.</p> |
| <p>Station restriction at night prevents guests from calling locally.</p>                           | <p>- Prevents pranksters from irritating other guests with the telephone at night.</p>           |



## CUSTOMER MUST SUPPLY

The customer must supply a 115 volt outlet convenient to the switching equipment bay. An individual circuit is desirable to avoid power failures caused by external sources.

Station wiring and cable can be concealed if the customer provides conduit to the equipment bay location.

An equipment room or adequate space to house equipment must be furnished. If only the 40M bay plus terminal facilities are to be located in the equipment area, a space of approximately 8 feet x 8 feet with a clear ceiling height of 7 feet is recommended. An 80M bay plus terminal facilities will require a space 10 feet x 8 feet x 7 feet high. The equipment room or area should be relatively dust free and well ventilated so that the relays in the bay will not become impaired.

## RATES

Installation Charges .....

Monthly Charges

40M PABX.....  
80M PABX..... )  
Station.....  
Optional Features..... )

## REFERENCE PUBLICATIONS

### Sales Aids:

- CSG 100.019 40B PABX
- CSG 100.005 Hotel/Motel Communications )
- CSG 100.020 80A PABX )
- C-504-1080 Hotel/Motel Dial Systems

### Technical:

- TB-504-407 Type 40 and 80 PABX

### General Catalog:

- Catalog 11,000 Section T

# COMMUNICATIONS SERVICE GUIDE

CSG  
100.026  
Issue 1

## TYPE 300 MOTEL SERIES

### INTRODUCTION

Motels and hotels no longer have to compete only with the "comforts of home." In recent years, growth and competition in this industry have created an entirely new concept in lodging facilities. The trend has been toward the large, modern motels and motor hotels featuring all kinds of services. The traveler of today has come to expect all the very latest in guest conveniences, and this includes private room telephone service.

The benefits of a modern, sophisticated telephone service are realized in two important areas of consideration: guest convenience, and administrative efficiency. In addition to providing the latest in guest service, a modern PABX is instrumental in rendering other motel services more efficiently, more conveniently and, consequently, more often.

It is the purpose of this CSG to show how the features and services offered by the Type 300 Motel Series PABX's can be profitably employed by the prospective customer.

### DESCRIPTION

Automatic Electric Types 301, 311 and 320 PABX systems - versatile, expandable, and offering a broad choice of special services in addition to the many desirable "built-in" features - provide the very best in modern business communications. The Type 300 Motel Series are special versions of these PABX systems, adapted to the needs of today's medium and large lodging establishments. These motel versions are characterized by the particular combination of special-purpose features which are essential to hotel-motel communications.

The Type 301 is an expandable, linefinder step-by-step PABX which utilizes cordless attendant

facilities with a key and lamp appearance for each trunk. Depending upon requirements, the attendant may be equipped with either a 24 trunk-key turret or a 48 trunk-key floor type cordless console.

The Type 320 is an expandable, linefinder step-by-step PABX which utilizes cord type attendant facilities with a jack and a lamp appearance for each trunk and station in the system. Attendant facilities may consist of either a single position attendant's cabinet, such as the Type 33A19, or of multi-position attendant's cabinets, such as the Junior Multiple or Senior Multiple types.

The Type 311 is an expandable, linefinder step-by-step PABX which utilizes cordless attendant facilities with a key and lamp appearance for each concentrated trunk link. Attendant-seeking traffic is concentrated and distributed to cordless turrets equipped with 12 keys and associated lamps.

Automatic switchgear and trunk equipment for the Type 301 and Type 320 systems are mounted on 6'6" high, double-sided frames and racks designed to save floor space on the customer's premises, especially where ceiling height is 9' or less. The same equipment for the Type 311 system is normally mounted on universal single-sided trunk boards.

The Type 311 PABX can, for extremely large or special situations, be adapted to motel use. Normally, however, the Types 301 and 320 motel versions are most suitable. The Types 301 and 320 are available for motels which require about 60 or more lines initially, and where expansion is anticipated.

### SPECIAL SERVICES

The three systems are basically similar in operation and in the features and services

offered, and unless otherwise indicated, each of the following services are available with all three systems.

### **Special Phones**

Because the PABX's are designed to operate with two conductor telephones, guests can be afforded the convenience of extension phones, portable phones and colored phones which exemplify modern progressive accommodations.

The administration also benefits through the use of such equipment as extensions and speakerphones which can be conveniently located to increase the efficiency of management.

### **Public Address and Paging Service**

With this service, any extension telephone can be used for public announcement or paging purposes. If a guest cannot be reached by ringing his room telephone, for example, the caller can dial the public address access number to page the guest. As he speaks, the caller's voice is heard over centrally located loudspeakers and he can direct the paged party to call a certain extension number to receive the message. This service is also used for controlling house personnel and for making public announcements.

### **Message-Waiting Service**

If a call comes in for one of the guests during his absence, this service provides an efficient means of promptly delivering the message upon his return. The attendant merely writes down the message and operates a turn key on the Message Service cabinet. The turn key causes a light on the particular guest's telephone to begin flashing. When the guest returns and notices the flashing light, he simply calls the attendant and receives the message.

The Message-Waiting service at no time interferes with the normal operation of the guest's phone. He can originate and receive calls normally; the message waiting lamp flashes only while the handset is on-hook and until the message has been delivered. The use of this service frees the attendant from having to ring the guest's phone frequently while awaiting his return. In busy hostleries, this service may even eliminate the need for additional personnel. This type of service is a symbol of modern efficiency, and leaves the guest with a lasting impression of the quality of service offered by the establishment.

### **Call Metering Service**

For purposes of billing, Call Metering service automatically counts the number of calls to the public exchange each guest makes during his stay. The counting meters, one associated with

each guest room telephone, are mounted in a call metering cabinet which can be conveniently located to suit the particular environment. When an outside call is completed from a guest room phone, the call is automatically registered on the meter associated with that phone. This provides an account-record of the guest's calls without consuming any of the attendant's time.

For meeting specified capacity requirements, four call metering cabinets are available: 50- and 100-line desk cabinets, a 200-line wall cabinet and a 300-line floor-wall cabinet. These cabinets are the same as those used with the Message-Waiting service with the exception that meters are mounted in place of turn keys.

### **Code Call Service**

This service provides an efficient means of locating house personnel who are not directly accessible by telephone. By means of coded audible or visual signals, an individual can be called to the nearest telephone to answer the code call.

Code call provides up to 125 codes, one code per individual. To reach a person by Code Call, the calling party dials first the Code Call prefix number to seize the equipment, and then the two- or three-digit code number assigned to the particular party he wishes to call. The called party, hearing or seeing his particular code, answers from the nearest extension phone by dialing the prescribed code answering number. By increasing the efficiency of management and staff, Code Call results in faster and better services and, hence, more satisfied guests.

### **Toll Restriction Service**

This service permits guest dialing of local city calls but prohibits calls which involve toll charges. On the basis of the digits dialed, the restrictor can differentiate between no-charge local and special-service calls, and denied toll calls. The service can be arranged to automatically divert the guest to the attendant when a toll call is attempted, otherwise busy tone or a recorded message will be heard by the calling guest. Where the call is diverted to the attendant, the guest can have his call completed via her call extension facilities, and charges for the call can be recorded by the attendant and billed to the guest.

If required, certain extension phones (managers or other house personnel) can be arranged to bypass the toll restrictor when making outside calls.

### **Conference Service**

Various means of facilitating multi-party telephone conferences are available with the 300-



## FEATURES AND BENEFITS

The following are some general benefits to users of 300 Motel Series PABX's. These should be translated into the specific benefits each prospect can expect from his installation.

Features	Benefits
Indefinitely expandable to meet all future growing needs.	<ul style="list-style-type: none"> <li>— A) Saves money - fast growing customer does not have to pay installation charges every couple of years.</li> <li>— B) Saves time and inconvenience - customer always has PABX service; does not have to wait for the old system to be removed and the new system installed.</li> <li>— C) Stops confusion of operator - she does not have to learn a new turret or cabinet operation every time some lines or trunks are added to the PABX.</li> </ul>
An inside call can be made automatically from any station.	<ul style="list-style-type: none"> <li>— A) Makes money - businesses are more apt to hold meetings and conventions at a motel with PAX service.</li> <li>— B) Saves money - Motel does not have to have a separate intercom system for motel operation personnel.</li> <li>— C) Saves operator time - the attendant will not be bothered with as many internal calls.</li> </ul>
Direct Outward Dialing (DOD) allows guests to place their own trunk calls privately and quickly.	<ul style="list-style-type: none"> <li>— A) Saves operator time - Attendant does not have to place all outgoing calls.</li> <li>— B) Better customer relations - No delay, confusion or irritation.</li> <li>— C) Provides greater privacy - Calls are placed through impersonal automatic equipment.</li> </ul>
Additional Features	Additional Benefits
Message Waiting.	— Guests know immediately when a message is waiting at the switchboard without bothersome calling of the room.
Message Metering.	— Number of guests' telephone calls are known immediately to facilitate billing and avoid confusion. This allows guests to place DOD calls and still be billed correctly for telephone usage.
Night Service Transfer.	— Shuts off PAX capability at night so that guests are not disturbed by pranksters.
Uses Standard Two-Wire Telephones.	— Saves money and maintenance time by not requiring special station apparatus. The system is capable of special station apparatus if desired.
Single Digit Access Of Special Motel Services.	— Guests can call room service, the bar, etc. without going through the operator and without looking it up in the directory.

series PABX equipment. In many of the larger lodging establishments which frequently cater to large groups such as clubs, conventions, etc., conference service finds a number of useful applications. Wherever a number of guests have common business, the telephone conference service provides them with a convenient form of group communication. Three types of conference arrangements are available for this application: Meet-Me conference, Progressive Selection conference (not available with the Type 320 system), and Manual Conference (available only with the Type 320 system).

Meet-Me conference allows a number of guests to hold a conference by each dialing the conference number at a prearranged time. Thus, a group of guests can agree to "meet" each other on the conference line at 7:00 P.M., for example.

Progressive Selection conference permits a guest to originate a conference call to several other guests as he chooses. This may be arranged for either attendant-control, in which case the guest who originates the call must first

call the attendant and request to have the conference established, or station-control where by the conference can be established directly from a guest phone.

Manual conference is a feature of the attendant's cabinet used with the Type 320 PABX. To establish a conference, a guest calls the attendant, tells her whom he wishes to include in the conference, hangs up and waits to be recalled when the conference is established. This service is capable of conferencing up to four local stations and one central-office trunk.

If desired, any of the three conference services can be arranged to include an outside trunk party in conference with several extension parties. This, however, requires attendant supervision in all cases.

### Night Service Transfer

To assure guest privacy during the night, Night Service Transfer disables all room-to-room dialing late at night. This service is controlled by a key on the attendant's turret. Any attempted calls to a guest room



during the night results in busy tone being returned to the caller. If the matter is urgent, however, the caller may call the attendant or desk clerk and request that his call be permitted; the attendant then restores the transfer key for the time necessary to permit the guest to dial the number.

### Night Answering Service

During periods when an attendant is not required, this service provides the means of rerouting all incoming calls to the desk clerk's telephone or other administrative telephones, as required. Two types of night answering services are available: Selected Station Night Answer and Predetermined Night Answer.

Selected Station night answering permits any PABX station to handle incoming trunk calls while retaining full PABX capabilities for local communications.

With Predetermined Night Answer, certain stations are individually connected to central office trunks at night. These stations can originate and receive outside calls but they are removed from their normal PABX attachment (at night) and cannot transfer incoming calls or use other system features during the night answering period.

## STANDARD FEATURES

### Station Features

From a guest room telephone . . .

1. Guests can originate and receive room-to-room calls on a two- or three-digit, direct-dial basis.
2. Guests dial a single digit to access the PABX attendant, public exchange trunk (optional), and special services such as Room Service, Valet, Desk Clerk, etc.
3. Guests can receive incoming public exchange calls; the calls are originally received by the attendant and extended to the desired guest. Attendant can be recalled during the conversation by dialing "0."
4. Guests can transfer incoming calls to other guest phones either by the dial "1" technique (if provided) or via the attendant. (With the Type 320, call

transfer is effected only through the attendant.)

5. Under attendant supervision, guests can make long-distance calls from the privacy of their own rooms. The attendant, in this case, receives charges from the toll operator and applies them to the guest's bill.
6. Guests can place local city calls directly from their room telephones by first dialing "9" to get an outside line, and then dialing the number. (Toll Restriction is necessary to protect against direct long-distance calls.)

These are standard capabilities of all PABX extensions. Thus, house personnel phones have similar capabilities.

### Attendant Features

The attendant can . . .

1. Answer incoming trunk calls.
2. Extend incoming trunk calls to guest rooms or other house phones.
3. Hold incoming trunk calls.
4. Split to extension and to trunk.
5. Accept assistance recalls from extension phones.
6. Place outgoing trunk calls for guests and house personnel.
7. Establish night service connections.
8. (Optional) Establish a trunk and local "Meet-Me" conference.
9. (Optional) Establish a trunk and local Progressive-Selection Conference (Types 301 and 311 only).
10. "Camp" a trunk call on a busy connection (Types 301 and 311 only).
11. "Break-In" on a busy connection (Types 301 and 311 only).

Unless indicated otherwise, all of the station and attendant functions described above are standard features of the Type 300 Motel Series. Additional station and attendant capabilities which result from use of various auxiliary services are described in the appropriate section under SPECIAL SERVICES.

# COMMUNICATIONS SERVICE GUIDE

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100.028  
Issue 1

## MAGICALL<sup>®</sup> ELECTRONIC DIALER



*E2 Automatic Dialer with D2 Dial-in Unit.*

### DESCRIPTION

The MAGICALL Electronic Dialer is an automatic repertory dialer in which numbers and codes are recorded on magnetic tape by means of a detachable Dial-in Unit. The complete MAGICALL assembly consists of the Dialer, the Tape Cartridge, the Dial-in Unit, and the Power Supply. MAGICALL is made to attach to a telephone and automatically dial up to 400 or 1,000 lines at the touch of a button. The pushbutton controls for selecting names and initiating the dial are conveniently located on the housing of the attractive, compact desktop unit.

The "memory" of the MAGICALL is the magnetic storage tape which comes in either 400 or 1,000 listing capacities. The two standard tape cartridges are interchangeable and can both be used on any machine without

special adjustments. Your customer will be able to remove and replace the tape cartridges by himself as needed.

The Dialer measures 5 1/2" wide, 9 1/2" deep, and 3 1/2" high. The Dial-in Unit is 3 1/4" wide, 2 1/4" high (including dial, without dial it is only 1 5/8"), and 5 3/4" deep. The size of the Power Supply is 3 3/4" wide, 5 1/2" deep, and 3 1/4" high.

MAGICALL Dialers are available in black, white, and beige to match A.E. Co. telephones.

### OPTIONAL

MAGICALL Dialers equipped with an illuminated window are available. The Dialer is also available in W.E.Co. colors of green, beige, and grey.

® MAGICALL is a Registered Trademark of DASA Corporation.

AUTOMATIC ELECTRIC COMPANY

## FEATURES AND BENEFITS

Following are some general benefits to users of MAGICALL. These should be translated into the specific benefits each prospect can expect from his Dialer.

Features	Benefits
Automatic dialing makes connection quickly and accurately.	- A) Saves time--just push a button and the number is dialed. B) More accurate--magnetic memory tape never forgets.
400 or 1,000 numbers on a tape cartridge.	- All important numbers can be recorded and magnetically memorized on one machine.
The MAGICALL can accommodate up to 140 dial pulses which can be split into two groups.	- A) More than enough space for the longest possible numbers to be dialed. B) Trunk access or other special code numbers can be dialed without starting the dialing process over again.
The compact E-2 unit is only 5 1/2" by 9 1/2".	- Takes up no more desk space than a telephone.
Completely electric noiseless operation.	- No noise to distract organization of thoughts while dialing.
Motorized or manual selection of numbers speeds up dialing time.	- A) Saves time--numbers are located more quickly. B) More efficient--frequently called numbers are located on a motor driven directory right on top of the desk.
Simple, attractive machine blends well into any efficient office operation.	- A) Easy operation means caller can program his directory to suit his own needs. B) Attractive colors and modern contour blend into any office decor. C) The more important the position of calling party--the greater relative benefits he will receive.

## THE MARKET

MAGICALL is designed primarily as a business tool so sales effort should be directed primarily at that segment of the market. Anyone who has a heavy volume of repetitive calling to do is a good prospect for MAGICALL.

Among the many uses for MAGICALL are:

- Calls for reservations
- Calls to building tenants
- Sales Calls to repeat customers
- Placing WATS calls
- Ordering and purchasing
- Spreading emergency alerts
- Long distance calls
- TWX dialing
- Administrative calls
- Expediting
- Soliciting
- Credit checks
- Calling emergency crews
- Checking prices
- Convenience when dialing 10 digits or more
- Calling doctors, hospital emergency room

Executive offices, sales offices, and PBX switchboards are among the preferred locations.

Almost every segment of the business community can, in one way or another, use automatic dialing. For example, in a recent test conducted in Chicago it was found that 40% of all business calls made could be made more quickly and accurately with an automatic dialer. Half of those to which an automatic dialer was recommended thought enough of it to have it installed. So it is easy to see that a large market is there. You have but to make MAGICALL known.

## HOW IT OPERATES

### Placing Calls

- Operate Tape Drive Key to quickly locate desired alphabetical group, press down and turn Selector Wheel to place the desired name between the guide lines.
- Lift telephone receiver, listen for dial tone, depress CALL button. Your call is placed quickly and accurately.
- To place calls where an access code is required, after depressing CALL button as above, listen for dial tone again, then depress Star button. Your call is placed.
- Special "night line" or other situations may eliminate the need for access codes prerecorded on the tape. The access code can be by-passed by selecting the desired party, and depressing the CALL button BEFORE lifting the telephone receiver. After depressing CALL button, lift telephone receiver, listen for dial tone, and depress Star button. Call is automatically placed, by-passing access code.

### How To Record

- To record numbers, select desired alphabetical group, lift front cover, and enter names and numbers on desired lines. You are now ready to record the number.
- Place listing between guide lines on window, plug in Dial-in Unit, and depress CALL button. WAIT light on Dial-in Unit comes on, then goes dark. Dial the telephone number, making certain that the WAIT light is dark before dialing each digit. When all digits of the telephone number have been dialed, depress the Star button.
- Be sure to select a new entry space and depress CALL button before dialing each new telephone number during recording process. Disconnect Dial-in Unit after all listings are recorded.
- If a mistake is made in recording a number, depress CALL button and redial the correct number. The incorrect number is automatically erased. Depress the Star button after the correct number has been dialed.

- To record numbers where an access code (such as "9") is required to obtain a second dial tone, select listing, plug in Dial-in Unit, and depress CALL button. Dial in access code, depress Star button, and continue to dial the remainder of the digits that are necessary to place the call. Depress Star button, disconnect Dial-in Unit, and Dialer is ready to place call.

## CONSIDERATIONS (Limitations)

### General

Tape cartridges recorded on earlier Model E-1 Dialer equipment cannot be played back on E-2 Dialers. Such cartridges can be used, but first must be re-recorded using the D-2 Dial-in Unit and E-2 Dialer.

Some customers may choose to type name and number entries on the tape. The lines printed on the directory tape are spaced exactly the same double spacing on most standard typewriters (3 double spaced lines per inch). Special typewriters may not have this standard spacing and allowances should be made for this.

### Capacity

The E-2 Dialer is capable of recording up to 400 numbers when equipped with 400 line tape cartridges, or up to 1,000 numbers when equipped with 1,000 line tape cartridges. Either tape will hold 140 dial pulses which is enough for any number to be dialed.

### Availability

MAGICALL Dialers are stocked in local A.E.Co. warehouses.

## CUSTOMER MUST SUPPLY

The customer must supply a source for 115 volt A.C. power to operate the power supply. The location for the power supply should have unrestricted ventilation.

## RATES

Installation Charges .....  
Monthly Charges .....  
Other Charges .....



## SALES STRATEGY

Automatic Dialers are not complete systems in themselves, rather they are part of the business customer's total communication system. Therefore, Communication Consultants whose main sales efforts are devoted to major business customers should not devote separate sales effort exclusively to the MAGICALL. Rather they should vigorously promote the use of this dialer as a vital part of a customer's communication system during normal sales contacts.

Operation of Automatic Dialers is relatively uncomplicated. Therefore, it is suggested that they be sold by customer service representatives and other appropriate contact

employees as well as by Communication Consultants.

The MAGICALL is ideally suited to special promotional efforts, such as direct mail, trade fairs, rotary club demonstrations, and similar programs.

## REFERENCE PUBLICATIONS

### Technical :

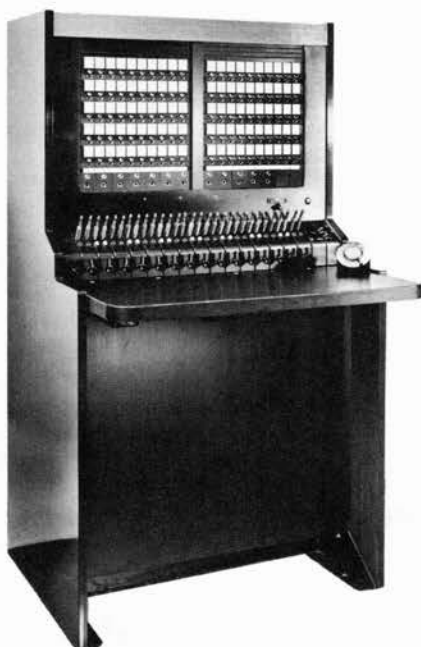
TB 478-766 - Model E2 Automatic Dialer

C-1063 - The MAGICALL\* Electronic Dialer

## NOTES:

# COMMUNICATIONS SERVICE GUIDE

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## TAS-100 PBX

### TELEPHONE

### ANSWERING

### SWITCHBOARD

#### DESCRIPTION

The TAS-100 PBX Telephone Answering Service switchboard is an attractive floor type, manual switchboard designed to meet the needs of telephone answering service companies. These companies provide secretarial telephone answering service for clients who must be away from their office or place of business or for clients who do not have a regular business office at which to receive telephone calls.

A thorough understanding of the TAS-100 PBX equipment capability cannot be obtained without reference to and study of several basic answering service definitions. Each type of service satisfies a specific client need. The following definitions illustrate the important elements of each type of service.

- **Secretarial Line:** A Secretarial Line may be a residence line, individual business line, PBX trunk or PBX station line which has been extended by the telephone company from the central office serving the home, business or PBX to the Telephone Answering Service switch-

board. Such lines terminate on Secretarial Line jack circuits and are arranged to visually and audibly signal the TAS-100 PBX switchboard attendant only during incoming calls; circuit design prevents outgoing calls from the switchboard on Secretarial Lines. The three types of Secretarial Lines may be served directly or through Concentrator-Identifier equipment.

- **Answering Line:** Some Telephone Answering Service clients have no local business office for the termination of telephone facilities. Such clients, therefore, arrange for the telephone company to assign a telephone number to them and extend this number to the Telephone Answering Service switchboard, either directly or through a Concentrator-Identifier. The TAS-100 PBX switchboard attendant answers ALL calls for Answering Line Clients, and outgoing calls on Answering Lines are prevented by the TAS-100 PBX circuit design. Answering lines terminate in one of two ways: either on the jacks of one-way incoming

answer trunk service circuits, located in the trunk jack field of the TAS-100 PBX switchboard or in the Secretarial Line jack field, if the switchboard is served by Concentrator-Identifier equipment. Audible and visual signals to the attendant are provided.

- **Primary Service Line:** Primary Service Lines are two-way central office trunk lines subscribed to by the Telephone Answering Service Company. These lines are terminated in the trunk jack field at the jacks of primary trunk service circuits, arranged to visually and audibly signal the attendant. Primary Service Lines are employed by the Telephone Answering Service Organization to handle their own administrative needs as well as to answer calls to "joint users" and "reference listing" clients who may share the same service. "Joint users" of these trunks (Primary Service Lines) are usually clients who do not have telephones of their own. "Reference listing" clients are those who list the Telephone Answering Service number as an alternate to be called if no answer is received from their regular telephone. Primary Service Lines may be either local central office trunks or foreign exchange trunks.
- **Auxiliary Station Lines:** These lines are standard PBX stations and are employed by the Telephone Answering Service for the proper administration of its day-to-day business. Auxiliary Station Lines are used for both inward and outward calls and terminate on Auxiliary Answering Station jack circuits in the station jack field. Audible and visual signals to the attendant are provided.

The TAS-100 PBX is similar in appearance and design concept to the L55 Switchboard. For example, the plug-in type cord, trunk, and operator's telephone circuits of the L55 PBX are employed in the TAS-100 PBX design with little or no change. As implied by its name, the TAS-100 PBX has been designed to serve a maximum of 100 secretarial type outlets. These may be of the Secretarial Line or Auxiliary Station Line type or any combination of these two services. In addition, the TAS-100 PBX has a maximum capacity of 14 trunk circuit positions which may be wired to accommodate primary, answer, and inter-position trunk circuits as required. The fourteenth trunk circuit position is wired for either primary or answer service; however, if a hand generator is equipped, the fourteenth trunk circuit position will not be available.

Secretarial Line relays are furnished ten per individual mounting plate. This assembly also includes a lamp test relay to verify proper lamp operation of the ten lines on the plate. (An additional lamp test relay assembly - identified as the auxiliary line lamp test circuit - contains ten lamp test relays, each of which is

capable of testing 10 lamps. This assembly is optional and must be ordered to test the lamps of Concentrator-Identifier or Auxiliary Answering Stations.) The mounting plate for either assembly has the same external dimensions and mounting arrangement as that of the 10A1 Key System (H-883002-12) three C.O. Line unit. Either 10A1 Key System Housing Units (H-886768-1) or 23" relay racks can be utilized for Secretarial Line or auxiliary lamp test relay mounting purposes. The 10A1 housing unit can hold four Secretarial Line or auxiliary lamp test relay mounting plates while a relay rack seven feet high and 23" wide can mount 20 units of either assembly.

To provide the TAS-100 PBX with one-inch designation strips required by Telephone Answering Service Organizations, it was necessary to increase the height of the L55 switchboard cabinet. Framework, cabinet and cable dimensions were altered to increase the vertical dimension from 46-1/16 to 53-27/32 inches. The other L55 dimensions (29-3/8 inches wide, 29-5/16 inches deep, with writing shelf 30 inches above the floor) remain unchanged. Special designation strip holders permit the use of small permanent magnets for securing temporary notes relating to client line operation.

The keyboard arrangement is located above the writing shelf and is sloped for easy accessibility. The writing shelf is free of keys and cords giving the attendant an uncluttered work space. Cord circuits are furnished with eight foot cords as standard equipment.

The TAS-100 PBX is housed in a bay poplar plywood cabinet having a webbed walnut, formica type veneer finish. The cabinet woodwork is of a sturdy, durable material and the formica type veneer finish is mar-resistant and stainproof. The front and rear doors lift out freely, and the cabinet panels are arranged for easy removal.

A self-supporting steel frame makes up the main structure of the TAS-100 PBX, and the plywood panels and wood trim are attached by means of fasteners. The trunk and cord circuits are plug-ended for ease of servicing and facilitate the addition or removal of equipment.

## OPTIONAL

Position grouping equipment is available to associate a maximum of two positions, when it is necessary to operate with one attendant. This feature permits one attendant to handle calls for either position. The standard eight foot cords make the two position installation more versatile.

An inter-position trunk circuit, intended for use where multiple switchboard positions are employed, permits an incoming client's call to be passed to another position assigned to accept messages for the client.

In addition, a strip of ten line lamp test keys can be provided to permit rapid attendant

verification of line lamp operation. Also, the TAS-100 PBX can be equipped with a hand generator, a second operator's jack and foot switch control of a common buzzer.

## FEATURES

### Standard

- A field of 100 station jacks is provided to serve either Secretarial or Auxiliary Station Lines. The TAS-100 PBX is furnished with wiring for Secretarial Lines only, i.e., the sleeve of each jack is "open" to condition the cord circuit so that an inductor remains bridged across the line to prevent outward dialing by Telephone Answering Service personnel. For two-way Auxiliary Station Line (regular PBX) Service, each jack so assigned must be arranged to ground the sleeve. (The latter is the same as the L-55 Station Line Circuit.) The required wiring change can readily be made by installation personnel.
- The TAS-100 PBX is arranged for connector cable installation methods through the use of Amphenol connectors. A mounting plate supports the Amphenol connector and also provides a series of 50 solderless wrap terminations. The solderless wrap terminals serve to provide a convenient location for applying any required strapping options as well as a means of terminating the various internal switchboard circuits. A separate miscellaneous terminal block is provided for use in terminating the power cable (not connector terminated) and also for applying other specified wiring options at the time of installation.
- Additional space is provided in the TAS-100 PBX face equipment for a miscellaneous lamp and jack field equipped for 20 circuits. Wiring only is furnished in the standard switchboard and this wiring terminates on solderless wrap assemblies. If the option for line lamp test keys is used, the ten keys will occupy half of the available space. The miscellaneous lamp and jack field IS NOT TO BE USED FOR SECRETARIAL LINES.
- Primary Service Lines are served by primary trunk service circuits which are designed for full two-way operation; ring-down lock-in incoming and loop seizure outgoing. (The same as L55 PBX C.O. Trunk Circuits.)
- Answering Lines are served by the same trunk circuits described for Primary Service Lines, but a wiring option prevents Telephone Answering Service personnel from placing outgoing calls. These trunks (answer service trunk circuits) feature one-way incoming, lock-in ring-down service.
- The primary and answer trunk service circuits may have multiple appearances in large Telephone Answering Service installations. With the standard trunk circuit wiring, only the lamp at the answering position would be extinguished; the illuminated lamps at multiple trunk appearances would not be extinguished. In cases of this type, an option is provided to prevent trunk lamp illumination at multiple appearances, and a TAS-100 PBX position must be assigned to answer the designated trunk(s). Where primary service trunks are involved, the "non-answering" positions can still make outgoing calls as required.
- The plug-ended C.O. trunk circuit, operator's circuit, and dial and operator's telephone jack circuit are retained from the L55 design. Through supervision is furnished as standard on the TAS-100 PBX cord circuits, as are eight foot cords.
- Either an Automatic Electric or a Western Electric Concentrator-Identifier System may be employed with the TAS-100 PBX. Simple wiring options permit internal switchboard circuitry to be arranged for either C-I system.
- Secretarial Line Relays are furnished ten per individual mounting plate. This assembly also includes a lamp test relay to verify proper lamp operation of the ten lines on the plate.
- Either 10A1 Key System Housing Units (H-886768-1) or 23" relay racks can be utilized for Secretarial Line or auxiliary lamp test relay mounting purposes. The 10A1 housing unit can hold four Secretarial Line or auxiliary lamp test relay mounting plates while a relay rack seven feet high and 23" wide can mount 20 units of either assembly. Local conditions, such as the number of TAS-100 PBX positions required and whether or not all or part of the lines are served by Concentrator-Identifier equipment, will influence the selection of a suitable mounting arrangement for the externally mounted relay assemblies.
- The TAS-100 PBX can be equipped to furnish a special common audible signal for certain Telephone Answering Service clients who wish to pay for preferential service. A separate auxiliary signal relay is employed for this feature together with a Type 45 ringer to permit easy attendant recognition of these high priority calls. The preferential service feature is not available for Answer Lines which are terminated on one-way incoming trunks; such lines operate the switchboard signal buzzer only.
- In some TAS-100 PBX applications, both



ground and battery seizing line circuits will be encountered (as when Western Electric Co. Concentrator-Identifier and Secretarial Lines are terminated on the same position). To provide for this requirement, separate auxiliary signal relays are provided. These are in addition to the auxiliary signal relay previously mentioned.

- A monitor key is furnished on all TAS-100 PBX switchboards; however, it is inoperative. Removal of a strap enables the monitor feature.
- As with the L55 PBX, the TAS-100 PBX is furnished with a battery cut-off key. This key can disconnect power from all switchboard circuits with the exception of the auxiliary signal relay(s). A separate panel cut-off key is provided to control the auxiliary signal relay(s). The main battery cut-off is also wired to remove ground from a miscellaneous terminal for possible control of an external function.
- Regular PBX station (Auxiliary Station Lines) can be served from the TAS-100 PBX switchboard. These stations can originate calls to other stations or to C.O. or PABX trunks as required.
- One inch metal designation holders permit the use of magnets to hold notes.

## Optional

- Position grouping equipment is available to associate a maximum of two positions when it is necessary to operate with one attendant. This feature permits one attendant to handle calls from either position; grouping control is obtained from headset jack contacts. The attendant must have her headset plugged into position number one when operating alone.
- An inter-position trunk circuit permits an incoming client's call to be passed to another position which is assigned to accept messages for the client. Trunk circuit position 13 is wired for the inter-position trunk. Should additional inter-position trunks be required, local TAS-100 PBX wiring changes will be required to accommodate the added circuits. Likewise, position 13 could be utilized for a primary service trunk or answer service trunk providing the necessary internal switchboard wiring changes are made.
- Without the lamp test facility, the Telephone Answering Service attendant must periodically dial all 100 lines (or whatever number are equipped) to verify that lamp signals are functioning properly.

In the TAS-100 PBX, a series of 10 non-locking push type keys can be provided as an option to permit rapid lamp performance verification. An associated lamp test relay is furnished as standard equipment on each Secretarial Line relay mounting plate and can test 10 lamps.

- An auxiliary line lamp test relay group containing ten lamp test relays, each of which is capable of testing 10 lamps, must be ordered to test the lamps of Concentrator-Identifier or Auxiliary Answering Stations. No lamp test facilities are provided for trunk circuits.
- Though not wired, the TAS-100 PBX is provided with the necessary drilling for mounting a hand generator. If the hand generator is used, trunk circuit position 14 cannot be used. Likewise, the switchboard is drilled for a handset hanger, but no such hardware is provided on the standard switchboard assembly.
- A second operator's handset jack can be provided for a TAS-100 PBX, if required. It should be noted that operator's headsets are not furnished with the standard switchboard, but must be ordered separately.
- A foot switch option is available for the L55 PBX for control of the common audible buzzer. This feature is also applicable to the TAS-100 PBX.

## HOW IT OPERATES

### Switchboard Operation

When the line of a customer having this service is called, a lamp on the switchboard will light and an audible alarm will sound. The attendant may answer all such calls or only those occurring at certain times, as instructed by the customer. In some cases, the attendant may be instructed to answer calls only on a predetermined number of rings, thus allowing time for the customer to answer personally, if he so desires.

Each Secretarial Line is bridged across a customer's line at the central office and terminates in a Secretarial Line circuit on the switchboard. When ringing current is applied to a customer's line, it is also applied to the Secretarial Line circuit on the switchboard, thus lighting a lamp and sounding an audible alarm to summon the attendant. An incoming call on a Secretarial Line is answered by inserting a cord into the associated Secretarial Line circuit jack.

With the aid of the TAS-100 PBX switchboard, the attendant can:

- ◀ Answer calls to customer lines.

## FEATURES AND BENEFITS

The following are some general benefits to users of the TAS-100 PBX. These should be translated into specific benefits each prospect can expect from his TAS-100 PBX System.

Features	Benefits
System made specifically for Telephone Answering Service Industry.	<p>—— A) No more "home-made" facilities.</p> <p>—— B) Established circuitry so that repair and maintenance can be made without changing the system.</p> <p>—— C) Looks custom-made for Telephone Answering application.</p> <p>—— D) Contains features most wanted by Telephone Answering Services.</p>
Easily expandable in terms of lines, trunks, cords and additional positions.	<p>—— A) Saves time - With jack-in cords, trunks, line circuits, maintenance and expansion can be done much more quickly.</p> <p>—— B) Saves money - With repairs and expansions done so quickly, the TAS-100 PBX can be back in service sooner and the Answering Bureau back in operation sooner.</p>
Use of regular PBX station extensions provides more flexibility.	<p>—— A) The Answering Bureau supervisor can have her own telephone to handle special calls.</p> <p>—— B) The board can also be used as a switchboard for a small office or 10 or 20 phones.</p> <p>—— C) Outgoing calls may be made.</p>

Additional Features	Additional Benefits
Position grouping equipment lets one operator handle two positions.	—— During lax periods, both positions can remain open with only one operator.
Wooden cabinets with formica-type veneer finish.	—— Scratch proof and mar resistant for years of attractive service.
Sloped keyboard arrangement.	—— Easier operation because keys are more visible.
Hand generator can be used in case of commercial power failure.	—— Board always operative.
Foot switch to control lamp signal buzzer.	—— Operator's hands are free.
Line test circuit to check line lamps.	—— Much easier than calling each line daily.

- ◀ Answer calls from customers, if necessary.
- ◀ Place calls to customers, if necessary.
- ◀ Extend an incoming call to an auxiliary station.
- ◀ Split the trunk so that she can be heard only by the inside party.
- ◀ Disconnect when a call to an auxiliary station is completed.
- ◀ Allow the caller at an auxiliary station to place his own outside call or place it for him.
- ◀ Complete a call between auxiliary stations.
- ◀ Test answer line lamps from a key on the switchboard (optional).
- ◀ Operate foot switch for control of common audible buzzer (optional).

## CONSIDERATIONS (Limitations)

### General

The TAS-100 PBX is a modern manual switchboard designed primarily for Telephone Answering Service companies. Though its various wiring options permit it to function as a PBX, the TAS-100 PBX should not be offered to a customer whose needs might better be met with an L55 Cord Type PBX.

### Capacity

The TAS-100 PBX is equipped with one-hundred (100) Secretarial Lines, six (6) primary service trunks (can be expanded by providing additional primary service trunks), eight (8) cord circuits, and one operator's circuit.

In addition to the one-hundred Secretarial Lines, a jack and lamp field of twenty (20) miscellaneous lines, wired in the same manner as Secretarial Lines, is provided for functions other than secretarial service.

## Availability

Both basic switchboard and additional equipment are available on an engineered basis; therefore, a delivery schedule should be determined before making definite commitments to customers.

## THE MARKET

The TAS-100 PBX is unique among PBX switchboards in that it is specifically designed for a special market.

In this section, some general information on the Telephone Answering Bureau industry is in order.

The Telephone Answering Bureau industry was started in 1921, and in the 45 years from then until 1966, it has grown into an industry of more than 2500 companies which handle over 1,000,000,000 calls a year. Telephone Answering Bureaus are worth about \$25,000,000.00 a year to the telephone industry, or \$10,000.00 a year per installation.

One third of the Telephone Answering Bureau's customers are doctors, while other professional people take up most of the TAS lines. However, a new element has been making fast strides in the use of TAS lines. Warning and control systems are being connected more and more to the Telephone Answering Bureau boards to add a human element to such emergency reporting equipment as fire alarms, burglar alarms, temperature control monitors and stalled elevator alarms.

Telephone Answering Bureaus provide an easy and lucrative field for the telephone company, and, like most other service industries, they are growing.

## SALES STRATEGY

Due to the nature of the Telephone Answering Bureau market, the actual sale will be to the Answering Bureau itself as they are usually aware of the types of switchboards that are available.

One problem to consider, however, is the effect that Telephone Answering Bureaus will have on your sale of automatic telephone answering devices (e.g., ELECTRONIC SECRETARY® equipment).

Chances are that a customer in need of telephone answering will first contact the telephone company. Depending on the circumstances, two courses of action can be taken:

- Refer him to a Telephone Answering Service Bureau in which case you will get the revenue for an additional line and help to create the market for installation of more TAS-100 PBX boards.
- Lease the services of an ELECTRONIC SECRETARY or other automatic telephone answering device in which case you will receive direct revenue from the subscribers.

Circumstances vary and only the telephone company can determine which alternate they want to take in each specific instance.

## CUSTOMER MUST SUPPLY

The customer must supply the space required for switchboard location and a 110 volt outlet for telephone company use as prescribed.

The TAS-100 PBX requires approximately 30 square inches of floor space. Thus, the handsome, compact cabinet can be placed in any convenient location.

## RATES

Installation \_\_\_\_\_  
Monthly Rental \_\_\_\_\_  
TAS-100 PBX Switchboard \_\_\_\_\_  
Optional Equipment \_\_\_\_\_

## REFERENCE PUBLICATIONS

### Technical:

- Section 503-410-100 TAS-100 PBX Description.
- Section 503-410-200 TAS-100 PBX Telephone Answering Switchboard - Installation.
- Section 503-410-500 TAS-100 PBX Telephone Answering Switchboard - Installation Tests.
- Section 503-410-700 TAS-100 PBX Telephone Answering Switchboard - Adjustments.

### Sales Aids:

- C-1107 TAS-100 PBX The Modern Switchboard for Telephone Answering Service Bureaus.

### Catalog Information:

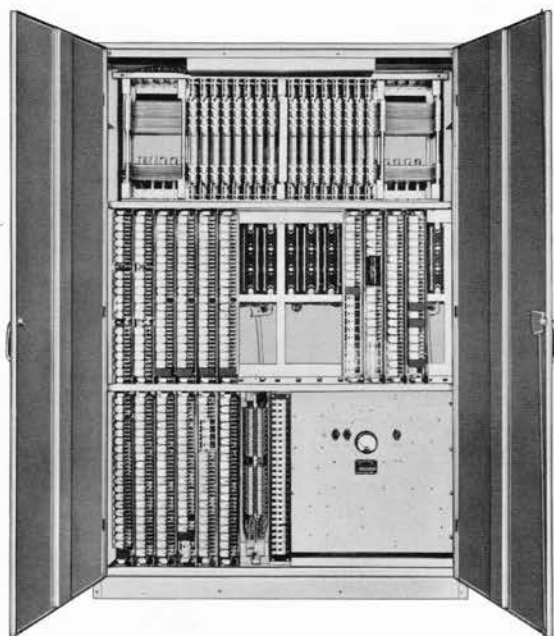
- Catalog 11,000 Section T



# COMMUNICATIONS SERVICE GUIDE

CSG  
100.030  
Issue 1

## TYPES 40KS AND 80KS PABX SYSTEMS

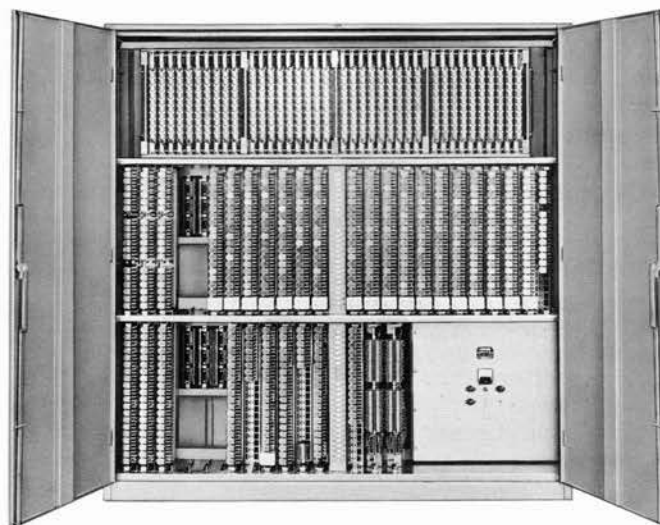


**Type 40KS PABX**

### DESCRIPTION

The Types 40KS and 80KS PABX systems are non-expandable, common control type systems which offer a unique combination of PABX and key-system features. Both systems provide full PABX service for efficient internal communications, while permitting the use of key-telephones or CALL COMMANDER® telephones for answering and extending incoming central office calls.

The key telephones or CALL COMMANDER telephones are designated as control stations into which calls from the central office come directly. The central office trunk circuits, directly connected to these control stations, provide all the supervisory lamp signals associated with a key system as well as the



**Type 80KS PABX**

dial "1" transfer-consultation operation, thus creating a new concept in business communications - a modern automatic dial system with fast and simple key-system operation on incoming calls.

The Type 40KS system has a capacity of up to 40 station lines and 10 central office trunks. Local calls are established by means of link circuits, 6 of which are available. The central office trunk circuits are terminated on trunk switches which establish all incoming and outgoing central office calls. Thus, 16 simultaneous conversations - 6 local and 10 outside - are permitted.

The Type 80KS system has a capacity of up to 80 station lines and 18 central office trunks. Normally, 9 link circuits are available for



local calling. Thus the 80KS will accommodate 27 simultaneous conversations - 9 local and 18 outside.

The automatic switching equipment of the 40KS system is assembled in a three-shelf arrangement and completely enclosed in a metal cabinet 48" wide, 72" high and 15" deep. The cabinet is finished in gray lacquer and has two lift-off type hinged doors both front and rear, which allow easy access to the equipment. The 80KS equipment is housed in a similar cabinet measuring 72" wide, 72" high and 15" deep.

## OPTIONAL

An auxiliary cabinet measuring 24" wide, 72" high, and 15" deep can be supplied to house additional equipment. The cabinet provides 12 jack-in relay bar positions for mounting additional optional equipment; however, the cabinet does not provide for additional switch positions and bank outlets which may also be required when adding extra equipment. Therefore, depending on what is to be added, special engineering consideration may be required.

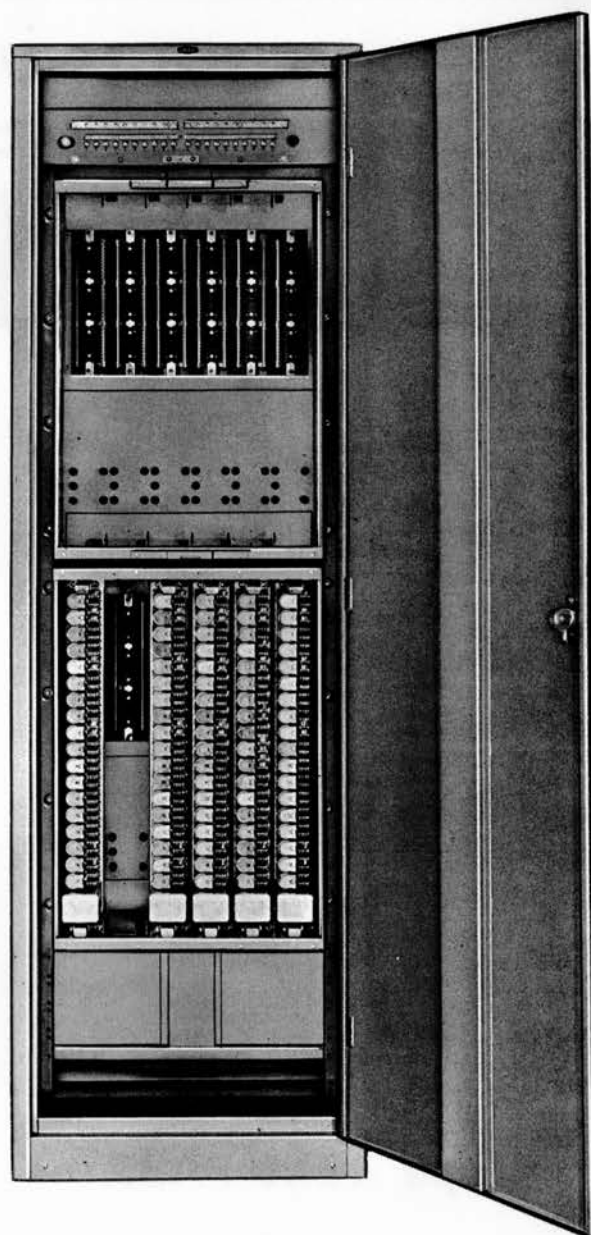
The number of control stations and the type of key telephones used depends on the customer. If his place of business is departmentalized, for example, with more than one listing in the telephone directory, the control stations may be arranged so that each will handle calls for a given department, and the number of trunks each department requires will then determine what type of key telephone will serve best.

In the majority of cases a Type 86 six-button key telephone will be most suitable; it will serve 3 or 4 central office trunks and one local station line. If, however, it is desired to have a greater number of trunks and station lines concentrated at one control station, an 18-line CALL COMMANDER telephone may be used.

## FEATURES

### Standard

1. Local to local automatic dialing on a two digit basis for the 40KS system, and on a three digit basis for the 80KS system.
2. Both switchboards are designed for use with standard 2-wire dial telephones as the normal station apparatus, and standard multi-line telephones as the control station apparatus.
3. Two-way central office trunk service:  
  
Incoming - Direct to control stations with key-pickup answer.  
  
Outgoing - Key-pickup and dial "9" access.



## Auxiliary Cabinet

4. Dial "1" capabilities for transfer, consultation and three-party conference on central office trunk calls.
5. Supervisory lamp signals and common hold provided on all central office trunk lines.
6. Individual station restriction to dial "9" access.
7. Universal Night Answering on incoming trunk calls.

### Optional

1. Meet-Me Conference. Provides a 4-way conference for 4 local parties or 3 local

parties and 1 outside party. Each local party joins the conference by dialing the conference digit at a pre-arranged time. The outside party is transferred to the conference by a local party using the dial "1" transfer method.

2. Power Failure Transfer. Effects automatic transfer of central office trunks to predetermined local stations for emergency calling in the event of a commercial power failure. The equipment can also be used to provide Predetermined Night Answering.
3. Dictation Control. Provides telephone access to centralized dictation equipment, placing the equipment under control of the caller's dial. Accessed by a single digit code, the dictation machine may be placed in record, playback, correction, stop and start modes by dialing additional single-digit codes.
4. Recorder Access Control. Connects a tape recorder to a central office trunk whenever a permanent record of a conversation is desired. The adapter is controlled by means of a push button located at the stations which are to have access to this service.
5. Paging Adapter. Permits announcements to be made over an existing public address system from any station telephone. The caller simply dials the access digit and makes the announcement.
6. Rotary Trunk Hunting. Where a single location employs several telephones, this feature enables automatic hunting for an idle line within that group whenever the called telephone is busy. Rotary hunting is available in groups of three, five, and six station lines.
7. Code Call. Provides up to 36 different codes to signal persons who are away from their telephones that a call is waiting. Upon hearing his own code, the called party may answer the call from the closest extension phone.
8. Executive Link. Incorporates special capabilities into the PABX line of an executive or supervisor. The link is permanently attached to one station line, providing positive, direct access to all other station lines, and enabling the calling executive to either override (break into) or "camp-on" a busy connection as he chooses.
9. Zoned Universal Night Answering. Provides divided night answering facilities so that incoming calls can be answered in

the appropriate zone or department. The central office trunks are segregated into as many as four groups according to what kind of calls are likely to appear on them at night. Each group will then have its own Universal Night Answer control which will activate an audible signal in the appropriate department or night answering zone.

10. Line Circuit Adapter. Provides key-system lamp signals for PABX station lines that terminate on key telephone.
11. Ring Control Adapter. Provides means of assigning incoming trunk audible signals to key telephone locations.

## HOW IT OPERATES

### Station Operation

Outgoing Trunk Calls - Restricted stations must have outgoing calls established by a control station or a non-restricted station. Non-restricted stations have direct dial "9" access to an outside line.

To Transfer Trunk Call to Another Station - dial "1," wait for dial tone, and then dial the extension number of the party desired. When the party answers, inform him of the call; replace your handset and the call will be transferred automatically.

To Consult With Another Station While Holding a Trunk Call - dial "1," wait for dial tone, and then dial the number of the party desired for consultation. The outside party is placed on hold during consultation. When the consulted party hangs up, dial "1" again to reconnect to the outside party.

To Establish a 3-Way Conference While On a Trunk Call - dial "1," wait for dial tone, and then dial the extension number of the desired local party. When the called party answers, dial "1" again to bring the outside party into the connection.

To Answer Incoming Call With Universal Night Answer - When the night signal sounds, dial "8" to connect to the calling party. To transfer the call, use the dial "1" method described above.

To Reach a Party By Code Call (Optional) - dial the Code Call access digit to seize the equipment, and then dial the two-digit code number assigned to the desired party. The Code Call equipment then begins to sound a centralized audible signal in a coded pattern determined by the two dialed digits. The called party, recognizing his own code, may answer from the closest extension phone by dialing the common Code Call answer number.



Executive Link (Optional) - Equipped with this link, the PABX line of an executive has direct access to all other station lines, and does not depend on common switching equipment to complete a call. In addition, the calling executive can override or "camp-on" a busy connection as he chooses. When the busy signal is encountered, the executive may dial "1" to break in; the link then applies "tick-tone" to alert the talking parties. If the executive wishes to "camp-on" the busy connection, he dials "2" and restores his handset; the link then applies a "spurt" of tone to inform the talking parties that a "camp-on" call is waiting for one of them. When the called extension becomes idle, the link automatically rings both the executive and the called party. If the executive decides to cancel the "camp-on" before he gets a ring, he may do so by removing his handset. This specialized link circuit can be attached to any station line, including the station line of a multi-line key telephone.

### Control Station Operation

In addition to all of the functions described above for station operation, a control station also handles incoming and outgoing trunk calls as follows:

To Answer Incoming Trunk Call - Lift the handset and depress the flashing trunk pick-up key. You are then connected to the calling party. By using the dial "1" method, you can effect transfer, consultation and 3-way conference as described for station operation.

To Place Outgoing Trunk Call - Lift the handset and depress any pick-up key associated with an idle trunk. When you hear central office dial tone, proceed to dial the desired central office number.

To Hold a Trunk Call Or Local Call - Depress the common hold key. The trunk (or local) party is then placed on hold. To release the hold condition, depress the pick-up key associated with the trunk or line on hold.

### CONSIDERATIONS (Limitations)

#### General

The key telephone method of handling central office calls is what sets the 40KS and 80KS systems apart from other PABX systems. For many customers, this type of operation is ideal; for others, a turret type system may be more suitable. The customer's business communication needs, therefore, must be carefully studied in terms of how the control station aspect of a 40KS or an 80KS system might be applied with greater utility than any other method of trunk supervision.

### Capacity

The 40KS and 80KS systems are non-expandable and should not be advocated unless there is reasonable assurance that the installation will be adequate for some time to come. The overall equipment capacity of each of these switchboards is determined by the total number of switch positions and relay bar positions. Therefore, when planning the addition of optional equipment, consideration must be given to the limitation of available mounting facilities.

### Availability

Some of the optional services outlined in this CSG require special engineering. Therefore, a delivery schedule should be ascertained before making definite commitments to customers.

### THE MARKET

The 40KS and 80KS are ideally suited for departmentalized concerns which require the capacities of no more than 40 lines and 10 trunks or 80 lines and 18 trunks.

The KS Systems offer all the features of a good key system with none of the limitations. In order to have a key system comparable to an 80KS, your customer would have to have all stations equipped with 80 button key telephones; and even then, he would not be able to have such features as trunk transfer, code call, executive right-of-way and the numerous other PABX auxiliary features offered on the KS board. Yet he will still have the main advantages of a key system such as incoming calls going directly to the department involved, no need for special attendant facilities and key pickup of incoming and outgoing calls.

To date, government agencies have been the largest users of the KS Systems, especially NIKE Sites; but there are untried markets in hospitals, courthouses, small office buildings and especially department stores.

Look over the places of business in your area that have large key systems or small PABX Systems, probably quite a few would be very grateful if you told them about the KS Systems.

### SALES STRATEGY

Any good sales program consists of thorough preparation, a good presentation, and a combined follow through. The following are some pointers for a successful sale of the 40KS and 80KS.

#### Preparation

Before you can make your "pitch" the KS System customer must be ferreted out from among the business concerns in your area.

## FEATURES AND BENEFITS

The following are some general benefits to users of 40KS and 80KS. These should be translated into the specific benefits each prospect can expect from his installation.

### Features

### Benefits

- |  |   |
|--|---|
| Key telephone facilities provide departmentalized handling of incoming calls.                                | — A) Saves money - no attendant required.<br>B) Builds better customer relations.<br>1) Customer dials directly to the correct department and is promptly connected to the party he is calling.<br>2) Less chance of customer being "transferred around."<br>C) Saves valuable office space - no bulky attendant's equipment needed.<br>D) Saves time - less people involved in the handling of a call. |
| DOD (Direct Out Dialing) permits fast and direct placement of outside calls without attendant.               | — A) Saves employee time (money) - no need to wait for operator.<br>B) Better employee relations - no delay, confusion or irritation.<br>C) Provides greater privacy - calls are placed through automatic equipment.  |
| Dial "1" permits transfer, consultation, conferencing on both incoming and outgoing calls without attendant. | — A) Saves money - gets things done faster.<br>B) Improves customer service - provides more efficient handling of calls.<br>C) Lowers communications costs - reduces need for extra lines and special equipment.  |
| An inside call may be placed from any station by dialing two or three digits.                                | — A) Enhances employee efficiency - more people can get more done by telephone.<br>B) Saves walking - avoids "visiting" and "bull sessions" - minimizes work interruptions.<br>C) Saves money - eliminates need for a special intercom system.  |
| Use of standard station apparatus simplifies changes and additions.  | — A) Saves money - special attendant and station equipment raise rates.<br>B) Saves time - no need to wait for special apparatus to be shipped from the factory.  |

### Additional Features

### Additional Benefits

- |  |   |
|--|---|
| Universal Night Answer & Transfer                    | — Full 24 hour telephone service.                                 |
| Power Failure Transfer                               | — Insures customer service to Central Office.                     |
| Relatively low monthly rental with free maintenance. | — Provides control over operation expenses.                       |
| Three classes of service.                            | — Offers full communications flexibility with controlled expense. |
| Full range of optional equipment.                    | — For a "custom-made" switchboard.                                |

Your prospect can be found in one of three classes: (1) new PABX or Key System customers, (2) customers who have outgrown smaller systems, (3) customers who want to retain key system operation but need the modern features of a PABX System. Using market cards, copies of past presentation reports and actual interviews, you can decide which of the prospects available would be best suited for a KS System.

Once you have narrowed the list down to where you can concentrate on a single customer,

a sales objective must be determined. Find out as much as possible about this prospect's present situation and his present and foreseeable needs. Does he want calls coming in to specific departments instead of a centralized turret? Does he need intercom? Is it to his benefit (and yours) to have his employees place their own outgoing calls? What additional features would he profit by having in his system?

Apply the KS to answer these questions. Show your prospect that the KS can meet all of his communications requirements economically.



Anticipate any objections he might have and be prepared to dispel them with constructive advice and recommendations.

### Presentation

Be ready to gain your customer's interest and maintain it throughout the presentation by citing benefits that he will receive from this installation. The success stories of others are always helpful and a demonstration is a good attention getter. Remember, he wants to know what he will get out of this installation. Tell him how he can make a profit by installing a KS System.

It is a good idea to bring along a written proposal to supplement your presentation. This will not only give you something to talk around, but your customer will then have something to refer to when you leave. Besides, a copy of this proposal will come in handy to you later on for reviewing this customer or for training purposes.

### Follow-Up

After the sale is completed, the responsibility of the Sales Department does not end. It is your responsibility to service the customer - to make sure that the installation is completed on time and that your customer and his people are properly trained in the use of their new KS System. In this way, you will leave the door open for future sales to this customer and be able to refer to him as a satisfied user. A satisfied customer is the gauge of a successful sale.

### CUSTOMER MUST SUPPLY

The customer must supply an individually fused, commercial 115-volt a-c outlet to the switching equipment bay.

Station wiring and cable can be concealed if the customer provides conduit to the equipment bay location.

A dust-free and well-ventilated equipment room or adequate space to house equipment must be furnished. If only the switchboard bay plus terminal facilities are to be housed in an equipment room, a space of approximately 10' x 8' with a clear ceiling height of 7' is recommended for the 80KS system, and a space of approximately 8' x 8' with the same ceiling clearance is recommended for the 40KS system.

### RATES

Installation charges.....	)
Monthly charges.....	)
40KS PABX Common Equipment.....	)
80KS PABX Common Equipment.....	)
Control Stations.....	)
Stations.....	)
Optional Features.....	)

### REFERENCE PUBLICATIONS

#### Technical:

- General System Practices - Section 504-212-100 LEICH Type 40KS PABX Description and Operation
- General System Practices - Section 504-212-200 LEICH Type 40KS PABX Installation
- General System Practices - Section 504-212-300 LEICH Type 40KS PABX Maintenance
- General System Practices - Section 504-212-500 LEICH Type 40KS PABX Installation Tests
- General System Practices - Section 504-222-100 LEICH Type 80KS PABX Description and Operation
- General System Practices - Section 504-222-200 LEICH Type 80KS PABX Installation
- General System Practices - Section 504-222-300 LEICH Type 80KS PABX Maintenance
- General System Practices - Section 504-222-500 LEICH Type 80KS PABX Installation Tests

#### Sales Aids:

- CSG 100.019 40B PABX
- CSG 100.020 80A PABX
- C-1054 Dial Telephone System

#### Other:

- Catalog 11,000 Section T

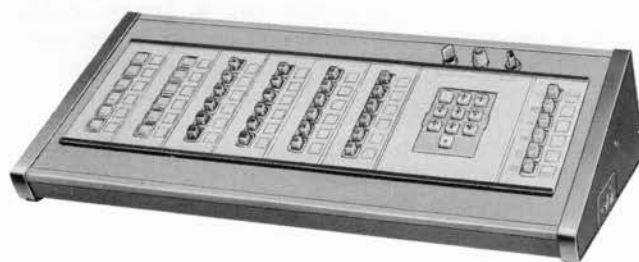
# COMMUNICATIONS SERVICE GUIDE

CSG  
100.031  
Issue 1

## TYPE 301 PABX



**Type 301 Cordless Console**



**Type 301 Turret**  
**(Wired For 36 Trunks,**  
**Equipped With 24 Buttons)**

### DESCRIPTION

The Type 301 is a modern, expansible, step-by-step PABX designed to provide a wide variety of services with standard two-wire telephones. This PABX is available with an attractive beige 10" x 21-3/4" attendant turret providing facilities for supervising up to 36 trunks, or a handsome beige floor console with facilities for supervising a total of 48 trunks. The turrets and console feature a TOUCHCALLING keyset, and nonlocking, lighted trunk keys.

The Type 301 PABX is available in any capacity desired from 60 lines up, and features easy expansibility up to 3 positions. A customer can start off small and as his requirements increase, the Type 301 can be expanded, with a minimum of inconvenience and expense to meet his needs.

Switches and trunk equipment of the Type 301 PABX are normally mounted on 6'6" high double-sided frames and racks designed to save floor space on the customer's premises, especially where ceiling height is 9' or less. Standard shelves have a capacity of 10 switches and are interconnected by jumper wire. One side of the switching equipment frame is gate mounted to swing outward and provide access to the rear of the equipment for ease of installation and servicing. The double-sided relay racks are gated on both sides to provide easier accessibility.

The power equipment mounts on a 6'6" single-sided frame. A specially designed 6'6" main distributing frame is also available to terminate the Type 301 terminal facilities.

## OPTIONAL

The Type 301 switch shelves may also be mounted on 9' high single-sided frames if ample ceiling height dictates this to be a better arrangement for the customer.

The floor console may include a station-busy lamp field with a 400-line capacity, furnished in 100-line increments. Ticket pockets for filing messages, charges, etc. can also be furnished in lieu of busy lamp panels.

## FEATURES

### Standard

1. Three- or four-digit local dialing.
2. Standard two-conductor telephones are used as station instruments, and special station apparatus such as speakerphones, key telephones, etc. can also be used.
3. Dial "1" method is used to transfer a trunk call or to consult with another inside station while on a trunk call. A two-station one-trunk conference, established by the station user is also a feature of the Type 301 trunk circuit.
4. The station loop limit is 1000 ohms, excluding the station instrument. Telephones can be located a considerable distance from the switching equipment. The actual distance depends on size of wire used and transmission factors.
5. Trunks may be split into any number of groups to permit access to different central offices and tie-trunk groups.
6. Stations may be divided into three different classes of restriction: restricted, nonrestricted, and partially restricted.
7. Universal Night Answer & Transfer, whereby incoming trunk calls sound a common night signal and may be picked up and subsequently transferred by any station.
8. Meet-Me Conference allows a number of local stations to hold a conference, by each station dialing the conference number at a prearranged time. A trunk may be placed in the conference by a local station using the dial "1" method.
9. Attendant Busy Override permits the attendant to break in on a busy condition and inform the desired party of an important incoming call.
10. Attendant-Controlled Camp-On-Busy informs a busy station that a trunk call is

waiting. The trunk call automatically rings the busy station when idle.

11. Rotary Group Hunting may be set up in groups of ten stations. With this feature, a certain station in the group will ring every time there is a call for the group. If the primary station is busy, the next idle station within the group will ring.
12. Immediate Ringing saves call completion time by forwarding a splash of ring immediately when a called line tests idle.
13. Cordless turret operation, with a Touch Calling keyset, provides for handling of both incoming and outgoing calls.
14. Extendable Information Trunks permit station users to place outgoing toll calls through the attendant by dialing "0" and staying on line while attendant places call.

### Optional

1. A cordless floor console wired for 48 and equipped with 24 trunk keys. This unit may also be equipped with a Busy Lamp Field having a capacity of up to 400 lines in 100 lamp increments, or ticket pockets, or blank panels.
2. Up to three (normal recommended maximum) attendant's positions may be provided for a single installation.
3. Either Power Failure Transfer or Stand-by Power to provide uninterrupted telephone service during commercial power failure.
4. Various types of tie, WATS, and FX trunks can be provided to connect the Type 301 with other PABX's or distant central offices. Tie lines arranged for dial "1" transfer and dial "0" recall are available. Also, trunk and tie-line, and tie-line to tie-line interconnections are provided for.
5. Direct-Inward-Dialing (DID) trunks which allow a central office caller to dial directly to a PABX station without going through the attendant. However, this feature requires special equipment considerations in the central office.
6. Toll Restriction which prevents local stations from making toll calls. Arrangements can be built-in to permit certain stations to by-pass the toll restrictors.



7. There are three types of Optional Night Service available on the Type 301 PABX:
  - (a) Selected Station Night Answering allows a pre-selected station to answer and transfer incoming trunk calls. The station does not require a special telephone and has full local and outgoing service.
  - (b) Zoned Universal Night Answering segregates trunks into several groups, each with its own night signal. When the signal is heard, a preassigned digit is dialed to answer the incoming trunk call. The call may then be transferred.
  - (c) Predetermined Night Answer (no transfer), whereby a certain trunk is directly connected to a predetermined station so that the station may receive and place trunk calls. The station instrument must be equipped with a grounding pushbutton.
8. Progressive Selection Conference (attendant-controlled) allows a number of stations to be placed in conference with a trunk and prohibits other stations from monitoring the conference.
9. Public Address Cut-In, to allow a local station to dial-access a public address system and broadcast an announcement.
10. Code Call provides up to 125 two- and three-digit codes. When a code signal is sounded, the person away from his telephone is notified that a call is waiting.
11. The Type 301 PABX may be equipped with an Executive Right-of-Way feature which allows an executive to break in on a busy connection.
12. Attendant Trunk Exclusion to prevent attendant from re-entering busy central office trunks unless called for; attendant can only access incoming calls, idle trunks, and recall.
13. Dictation Links are available which permit a user to dial-access a dictating machine and control it by dialing additional digits.
14. Message Waiting, which is normally provided on Motel Systems, may be added to let a station user (motel guest) know a message is waiting at the turret.
15. Message Metering, which is normally provided on Motel Systems, measures the number of local city calls a guest completes. Either resettable or non-resettable meters can be provided.
16. Various types of station apparatus, such as a Two-Way Paging Telephone, Secretarial Answering Cabinets, and Direct Line units may be utilized with the Type 301.
17. Multiple turret lamp supervision lockout; blocks lamp supervision to all other turrets in the multiple.

## HOW IT OPERATES

### Station Operation

Outgoing Trunk Calls - dial city access digit, usually "9." Restricted stations must dial turret attendant.

To Transfer Trunk Call To Another Station - dial digit "1," then number of the station to which the call is to be transferred. When the station answers, replace handset and the call will be transferred automatically.

To Consult With Another Station While Holding a Trunk Call - dial "1" to place trunk call on hold; dial number of desired station; when consultation is completed and the other inside party hangs up, you will be automatically re-connected to the outside call.

To Establish a Conference With Another Station While On a Trunk Call - dial "1" to place trunk call on hold; dial the number of the desired station; with called station on line, dial "1" to add trunk party to 3-way conference connection.

To Call or Recall Attendant - dial "0." Trunk calls may be transferred directly to the attendant by dialing "0." After giving the attendant the required information, restore your handset.

Camp-On-Busy from attendant only - If you should receive an outside call while using your phone, you will hear a "splash" of tone. This indicates that you have another outside call waiting. When you hang-up, your phone will ring and you will be connected to this incoming call.

To Answer Incoming Call With Universal Night Answer and Transfer (No Attendant) - dial assigned digit, usually "8," when audible signal is heard; call may be transferred as described above. This method may be used in daytime to answer trunks when system is not equipped with turret.

Meet-Me-Conference - stations desired in the conference connection are notified to dial the



conference digit. An incoming trunk call can be put into the conference by the dial "1" transfer method, or by the attendant.

**To Use Predetermined Night Answer (optional)** - Certain stations are individually connected to central office trunks at night. These stations can answer incoming calls and place outgoing calls, but they cannot transfer or use other system features during the night answering period.

**To Use Selected Station Night Answering (optional)** - Certain stations are connected directly to central office trunks at night. These stations can answer incoming calls, place outgoing calls, transfer calls via dial "1" transfer, in addition to all of the other regular PABX facilities.

**Code Call (optional)** - dial code call access digit, usually "6," then dial the 2-digit code number of the desired party. The party being paged can be connected to the calling party by dialing the code call answering number.

### **Turret Operation**

An attendant can perform all of the following functions with the aid of the modern attendant turret or console supplied with the Type 301 PABX:

- Answer Incoming Trunk Calls
- Extend Incoming Trunk Calls to Local Stations
- Hold Incoming Trunk Calls
- Split to Extension and to Trunk
- Accept Assistance Recalls From Stations
- "Camp" a Trunk Call On a Busy Connection
- Break-In On a Busy Connection
- Place Outgoing Trunk Calls for Local Stations
- Make an Intercom Call to a Local Station
- Establish Night Service Connections
- Establish a Trunk and Local "Meet-Me" Conference
- (Optional) Establish a Trunk and Local Progressive-Selection Conference
- (Optional) Code a Local Party Via Code Call

## **CONSIDERATIONS (Limitations)**

### **General**

The Type 301 PABX is a modern communications system made for businesses and places of lodging which require a sophisticated telephone system. For a customer to be completely happy with the Type 301, he must need and understand the various modern features which go into the make-up of the system. A large automatic PABX such as the Type 301 is best utilized when the local users are allowed to place their own outgoing calls and perform other telephone operations without the aid of the attendant. The customer must be properly informed and conditioned to the methods of operation of the Type 301 to get the most out of it.

### **Capacity**

The Type 301 PABX is generally designed for customers with an initial need of 60 lines and where expansion is eminent. If a customer's ultimate requirements may never exceed 80 lines and 18 trunks, a non-expandible packaged system like the 80A might be better applied.

The Type 301 PABX has unlimited expandability. It will perform just as well in systems of 60 lines or of 1000 lines. However, the Type 301 operates on the basis of a key and lamp for each trunk. Therefore, if the trunk requirements becomes excessive, a Type 311 concentrated trunk system should be considered to cut down on the number and capacity of turrets required.

### **Availability**

Some of the optional services outlined previously require special engineering, so a delivery schedule should be ascertained before making definite commitments to customers.

### **Features**

When placing outside calls, a station user must commence dialing and dial each digit within approximately 12 seconds of the previous digit. Tick-tone is heard during the 12-second period to indicate that time has not been exceeded. When time is exceeded, tick-tone is not heard, and trunk circuit "assumes" that the next pulse should not be passed to central office. If time is exceeded and subsequent digit is "2" through "0," the attendant will be recalled; if digit is "1," local dial tone will be received as in a transfer-consultation call. Customers should be instructed to have desired number readily available before placing a call.

Before transferring an outgoing call, the station user must wait approximately 12 seconds after

## FEATURES AND BENEFITS

The following are some general benefits to users of 301 PABX's. These should be translated into the specific benefits each prospect can expect from his 301 system.

<u>Features</u>	<u>Benefits</u>
Cordless turret operation for quick and easy handling of incoming calls.	— A) Saves money - does not require full time attendant. B) Builds better customer relations. 1) Good impression of business through fast and proper answering by attendant. 2) Attendant override provides fast action in emergencies. C) Saves valuable office space - turret can be placed on a desk.
Dial "1" method provides hold, transfer, consultation, and conference calls without the aid of the attendant.	— A) Saves money - gets things done faster. B) Better service - provides more efficient handling of calls. C) Lowers communications costs - reduces need for extra lines and special equipment.
Direct Outward Dialing (DOD) allows station users to place their own trunk calls privately and quickly.	— A) Saves money - the station user does not have to wait for the operator and saves them valuable time in placing calls. B) Better employee relations - no delay, confusion, or irritation. C) Provides greater privacy - calls are placed through impersonal automatic equipment.
Indefinitely expandable to meet all future growing needs.	— A) Saves money - fast growing customer does not have to pay installation charges every couple of years. B) Saves time and inconvenience - customer always has PABX service; does not have to wait for the old system to be removed and the new system installed. C) Stops confusion of operator - she does not have to learn a new turret operation every time some lines or trunks are added to the PABX.
An inside call can be made automatically from any station.	— A) Enhances employee efficiency - more people can get more done by telephone. B) Saves walking - avoids "visiting" and "bull sessions" - minimizes work interruptions. C) Saves money - customer does not have to have a separate intercom system.
<u>Additional Features</u>	<u>Additional Benefits</u>
Nite Service Features	— Provides 24 hour telephone service without the cost of an attendant.
Three Classes of Restriction	— Offers full communications, flexibility with controlled expense.
Rotary Group Hunting	— Gets incoming calls answered fast - builds efficient company image.
Message Metering	— Number of guest's telephone calls are known immediately to facilitate billing and avoid confusion.
Message Waiting	— Guests know immediately when a message is waiting at the switchboard without bothersome calling of the room.
Uses Standard Two Wire Telephone	— Saves money by not requiring special station apparatus.
Operator Exclusion	— Provides privacy for confidential calls.
Meet-Me Conference	— A conference session can be held by telephone.

dialing the last digit of the CO number. Tick-tone is heard until circuit is conditioned to receive dial "1." Otherwise, trunk circuit "assumes" the digit "1" should be passed to the central office.

### THE MARKET

The market for the Type 301 PABX includes all customers who have a need for at least 60 stations and 5 central office trunks. The unique features, expansibility, and flexibility of the 301 permit it to be tailored to the needs of any customer group.

Special Message Waiting, Message Metering, and Guest Dialing features make it ideally suited for hotels and motels. Its spacesaving attendant facilities are of particular interest to this customer group.

Although normally applied as a two-way trunk system, the 301's optional DID trunks permit it to meet those CENTREX CU service requirements which are not large enough to require the 311 PABX.

Its multi-turret capabilities make it ideal for

applications requiring more than one listed number, such as County Court Houses.

Special security and alarm features can be added to make the 301 adaptable for Correctional, Mental Health, and Old Age Institutions.

### SALES STRATEGY

A good sales program consists of thorough preparation, a good presentation and a combined follow through. The following are some pointers for a successful sale of the 301 PABX.

#### Preparation

Being a large system, any 301 that is placed in service will be a big revenue producer. Since it will make a good profit, it will be worth your while to spend a good deal of time making an exhaustive preparation to market the 301. There are a number of steps which can be followed to ferret out 301 prospects and sell them on this system.

- Selection of Potential Prospects - The first step in your program should be a

review of your business community to find prospects for large PABX's. Prospects will be found in one of the three classes who (a) are new business customers, (b) have outgrown their present systems, (c) already have a large system, but are in need of more modern services.

- **Review of Prospects** - After selecting potential prospects, gather together all the available information on them. If he is already a customer, copies of past presentation reports and market calls will give you a basic understanding of his present situation. The next step is to find out how the prospect's business operates and what his communications expectations are. In order to sell a prospect on the right equipment, you must understand his situation and his wants. The best way to find out what your prospect wants is to ask him. A survey of the customer, on his premises, is the best way to ask him. The survey can be made on a company initiated basis or as part of other activities concerning the prospect's communication services.
- **Analysis** - A comprehensive analysis should then be made of the prospect's communications requirements to match his needs and wants with what you can furnish. The versatility of the 301 will meet the requirements of most of your large PABX prospects. Using a "Communications Usage and Proposal Survey" form or something similar, determine a prospect's present situation such as his methods of operation, what services he now has, future growth expectations and detailed technical data. Traffic studies should be made to determine trunking requirements and intercom usage.

## Presentation

It is recommended that a written proposal be prepared prior to making the actual presentation to the customer. After reviewing all the information made available during your preparation, the traffic and/or engineering people should be contacted for their recommendations. Doing this will avoid the embarrassment of proposing a system that is technically infeasible or impractical.

The climax of all the usage prospecting and consultation is the actual presentation to the customer. It is recommended that the oral presentation be supplemented by a written proposal including all the literature which the customer would be interested in. These can be referred to during the presentation and will give the customer something in writing to refer to should he want to confirm the more important details afterward.

## Follow-Up

After a sale is completed, the responsibility of the Sales Department does not end. Service to the customer is your responsibility. Sales should make certain that the installation is completed on time and that the customer and his people are properly trained in the use of their new PABX system. In this way, you will leave the door open for future sales to this customer and be able to refer to him as a satisfied user. A satisfied user is the gauge of a successful sale.

## CUSTOMER MUST SUPPLY

A dust-free, well ventilated room which provides adequate space for the initial installation, as well as future growth, must be supplied by the customer. Your engineering department can best advise as to the exact dimensions of such a room; however, a system with an ultimate requirement of 200 lines requires an approximate space 13' x 16' or 10' x 23' and one with 400-lines ultimate requires an approximate space of 17' x 17' or 11'-6" x 28' with a ceiling height of 8'.

## RATES

Installation charges.....  
 Monthly charges.....  
     Type 301 PABX common equipment.....  
     Turret .....  
     Stations .....  
     Optional features.....

## REFERENCE PUBLICATIONS

### Technical:

- General System Practices - Section 810-101-101 A.E.Co. Type 301 PABX - Description and Operation
- General System Practices - Section 277-101-201 A.E.Co. Type 301 PABX - Installation
- General System Practices - Section 277-101-501 A.E.Co. Type 301 PABX - Test Procedures

### Sales Aids:

- C-1039 AE Dial Telephone System
- CI-810-118 Type 301 PABX - Attendant's Instructions
- CI-810-119 Type 301 PABX - Station User's Guide

### Catalog Information:

- Catalog 11,000 Section T



# COMMUNICATIONS SERVICE GUIDE

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## TYPE 311 PABX



### TYPE 311 PABX TURRET

#### DESCRIPTION

The Type 311 is a modern, expandable, heavy duty PABX designed to provide Centrex Service features, as well as a wide variety of standard and special PABX services, all with standard two-wire telephones. The 311 System provides cordless desk turret (or optional floor console) type of operation. The system employs a semi-common control design utilizing SXS switches, cross point switches, relays and solid state components arranged to provide a wide variety of services and arrangements. Such arrangements permit modern, reliable service with a wide range of flexibilities for services of today and for the future.

Trunks are terminated at the switching equipment instead of the attendant's turret which permits the system to have unlimited growth and ease of operation. The switching equipment automatically distributes attendant calls to the modern control center providing equal, one-at-a-time distribution of calls among the attendants. Even during heavy traffic periods, the control center is never jammed with calls

and flashing lights. The attendants handle each call in order without confusion. Each call remains at the attendant until the called party answers, after which the call is released from the position. This feature permits the same compact turret to serve any size system without changeout and also permits complete privacy of the call without possible operator intrusion.

Type 311 PABX's may be arranged for Centrex CU service, Centrex CO service or conventional PABX service, utilizing concentrated distribution of incoming trunks. When the Type 311 is arranged for Centrex CU service, the switching equipment and attendant facilities are located on the customer's premises. Centrex CO service provides an arrangement whereby the switching equipment is located on the telephone company premises; only attendant facilities are located on the customer's premises. This arrangement makes it possible to serve more than one customer more efficiently from a central location. When the Type 311 is arranged for conventional PABX service, both switching equipment and attendant facilities are generally located on the customer's premises.

AUTOMATIC ELECTRIC COMPANY



Desk model attendant turrets featuring a modern design to match the modern performance of the system are provided. The turrets are arranged with an 8-foot cable stub and connector which permits faster installation, flexibility of customer turret relocation or temporary disconnects. Each turret is equipped with key capacity and arrangements to handle the ultimate capacity and requirements of the system. Jacks for headset and handset operation are provided on both sides of the turret.

Available as an option is a handsome floor cordless console. The console may include a station busy lamp field (CU installations only) with a 400 line capacity, which can be furnished in 100 line increments. Ticket pockets for filing messages, charges, etc. can also be supplied in lieu of busy lamp fields. Floor consoles are generally provided on larger installation of 3 or more attendants. In most cases, dedicated space is provided for the attendant facilities and the floor console is desired because it provides all of the work space and equipment needed, such as a writing shelf, ticket pockets and time clock.

## FEATURES

### Standard

1. ABBREVIATED DIALING - Three-, four-, or five-digit dialing between stations.
2. STANDARD TELEPHONES - Standard two-conductor telephones are used which permit use of special station apparatus such as speakerphones, key telephones, etc.
3. CORDLESS DESK TURRETS - Provide reliable operation with fast TOUCH CALLING units for easy handling of both incoming and outgoing calls. Touch Calling unit is standard for the 311 attendant.
4. TURRET READOUT DISPLAY - Provides the attendant the identity or source of an incoming call. Any display may be incorporated within the miniature readout panel. Examples are: listed number - information - recall - WATS - toll restriction - divert DA - divert BY - priority traffic - intercept - and various trunk busy conditions or special purpose displays. A total of 20 different readouts are possible.
5. CONCENTRATED TRUNKING - Concentrated distribution of incoming trunks permits use of small compact turrets. Each attendant has only one incoming call before her at any one time, permitting her to handle it to completion quickly and efficiently. Call status indications inform the attendants when unanswered calls are waiting.
6. TURRET TRAFFIC CONTROL - Supervisory control arrangements permit routing certain types of traffic to specified positions at certain times. Four basic preference controls are provided: inward, information, recall and special. The total system operator traffic may be divided into these 4 basic traffic groups with attendant routing control as required.
7. REMOTE TURRET OPERATION - The attendant's turret may be operated remotely from the equipment location up to approximately 7 miles in distance (1200-ohm loop limitation). Power to the turret is supplied from the equipment location which eliminates the need for a separate power supply at the turret location. This feature permits a wide range of operational limits for customer premise requirements and at the same time permits Centrex CO arrangements.
8. LISTED NUMBER CALLS - Automatically transferred to the attendant when the turret is attended; when unattended, listed number calls are transferred to night service answering.
9. EXTENDABLE INFORMATION TRUNKS - Permit restricted station users to place outgoing toll calls through the attendant by dialing "0" and staying on line while the attendant places the call. The attendant may also permit the calling station to dial his own call through the extendable information trunk.
10. STATION CONTROLLED TRANSFER - Provided on all types of trunk circuits. The hookswitch flash method is used to transfer a trunk call, to consult with another inside station while on a trunk call or to establish a two-station, one-trunk conference.
11. STATION RESTRICTION - Stations may be prevented from dialing outside trunk calls. The restriction feature may be provided for individual lines or in 10- or 20-line groups.
12. CAMP-ON BUSY - Attendant controlled, informs a busy station that a trunk call is waiting. The trunk call automatically rings the busy station as soon as it becomes idle.
13. BUSY OVERRIDE - Attendant controlled, permits the attendant to break in on a busy condition and inform the desired party of an important incoming call.

14. DIRECT OUTWARD DIALING (DOD) - The individual stations can dial directly to the local exchange or toll network without the attendant's assistance.
15. DIRECT INWARD DIALING (DID) - Trunks which allow a central office caller (outside party) to dial directly to a PABX station without going through the attendant may be supplied.
16. IMMEDIATE RINGING - Speeds call completion time by forwarding an advance ring immediately when a called line tests idle.
17. DISTINCTIVE IN DIAL RING - A distinctive ring may be supplied to inform the called station that an outside call has occurred. Example: Station rings 1 long normal ring on internal calls, 2 short rings on DID calls, transfer calls and attendant completing calls. When the distinctive ring feature is applied, the immediate ring feature as explained in 16 above is disabled.
18. UNLIMITED SYSTEM GROWTH - Any number of lines, trunks and turret positions may be provided. There is no limitation to the growth of the Type 311 System.
19. ROTARY LINE SERVICE - Station lines may be provided in groups of 2 to 10 stations. With this service, if the primary station is busy, the next idle station within the group will ring. A typical example of rotary line service is in various departments within a customer's system. If the department head's station is busy, for example, the call will ring at his secretary's station which is next in the rotary sequence.
20. RESTRICTED DID STATIONS - Terminals may be restricted from receiving direct inward calls. Once a terminal is arranged for this service, any incoming outside call will receive busy tone. The attendant, however, may elect to extend a listed number call to such a terminal by proper turret operation which will ring in conventional manner.
21. CALL DIVERTING SERVICE - Station numbers may be marked (by use of a locking control key) so that any outside call would be diverted to the attendant. Inside calls would receive a tone indicating that the call should be directed to the operator. This service would normally be used when it is desirable to have the PBX attendant intercept incoming calls at various times when the station user is absent or should not receive outside calls.
22. SELECTED STATION NIGHT ANSWERING - Incoming listed number calls at night are directed to a pre-assigned answering telephone which may re-transfer the call in the conventional manner.
23. TIE TRUNKS - All types of tie line, CCSA, WATS, FX trunks, etc. can be provided to connect the 311 with other PABX's, PBX's, switch service networks or distant central office exchanges.
24. CONSULTATION CALLS TO OTHER TRUNKS - A consultation call may be made to another trunk in the system while holding the original trunk party. Once the call is placed, the originating station may "flash once" to return to the original party and talk, "flash once" again to return to consulted trunk party and so on, holding private conversations between the two trunk parties (2-party conferencing not applied).
25. TRANSFER CALLS TO OTHER TRUNKS - An inside station while talking on one trunk call may make a consultation call as above and if required, transfer the connection by hanging up the handset. The two trunk parties may converse and when through, hang up.  
  
NOTE: The consulted trunk group must be a dial-to-dial tie line that returns answer and disconnect supervision.
26. ATTENDANT CONTROLLED TRUNK TO TRUNK CONNECTIONS - The attendant may connect any one trunk in the system to any other trunk and maintain supervision and control over the connection.

#### Optional

1. TOUCH CALLING SERVICES - The basic system is arranged to permit Touch Calling features for the Type 311 station users. This service may be provided by adding Touch Calling equipment either partially or completely without equipment circuit modifications.
2. CORDLESS FLOOR CONSOLE - May be supplied instead of desk turrets and equipped with a busy lamp field having a capacity of up to 400 lines, in 100 lamp increments, or ticket pockets or blank panels.
3. INDIVIDUAL STATION BILLING - For direct distance dialing. Equipment identifies, lists and computes all long distance calls for the customer. A monthly itemized toll statement for each telephone number is submitted by the telephone company to the customer.

#### 4. MULTI-CUSTOMER ARRANGEMENTS

- a) The 311 System when installed as a CO (telephone company premises) System may serve a plurality of customers with each customer sharing part of the basic system.
- b) Common group attendant pools may also be provided where an attendant(s) may identify, answer and serve several different customers from the same location.
- c) Common or dedicated attendant pools may also be placed at the telephone company premises, with the serving telephone company providing the PBX attendant operators.

5. UNIVERSAL NIGHT ANSWERING - May be provided when night answering is not always centrally located. At night, incoming calls sound audible signals. The call may be answered from any telephone by dialing an answer number. Calls may be transferred in the conventional manner.

6. PROGRESSIVE CONFERENCE - Operator controlled conferencing that permits conference connections for up to 2 trunks and 8 local stations. The operator may connect up to 2 outside trunks and 8 local stations into conference. On off-attendant hours, a local station may set up a progressive conference arrangement without aid of the attendant. The conference arrangement may be local only or local and trunks.

7. TOLL RESTRICTION - Prevents a local station from placing direct toll calls or dialing other unauthorized routes. Restricted calls may be diverted to a recording or to the attendant. Arrangements can be provided to permit certain stations to by-pass the toll restrictors and have unlimited calling.

#### 8. TIMED DIVERSION SERVICES - DID CALLS

- a) Timed Busy Diversion - Specified numbers may have this feature which will divert a DID call automatically to the attendant after a timing sequence when the called station is busy. Busy tone is heard by the outside party until diverted.
- b) Timed DA (Does Not Answer) Diversion - Specified numbers may have this feature which will divert a DID call automatically to the attendant after a timing sequence when the called station telephone does not answer.

The above timed diverted services apply to direct inward dialed calls only. Attendant handled calls or consultation calls to such numbers will return a tone to the calling party after the timing sequence. The timing may be varied as required, with a suggested 20-second interval as standard.

9. STANDARD SERVICE NUMBERS - Option is available to provide a standard, conventional connector circuit in any specified connector group(s) where premium services are not generally required. Such numbers would receive and place calls in and out of the system, but would not have the following services: station controlled transfer, listed number, restricted DID terminals, distinctive ring, immediate ring, diversion services or camp-on. Applications of such groups would normally be found in university or institutional systems where the administrative numbers desire the standard premium services, but dormitory or patient phones need only to provide plain ordinary telephone service.

10. VOICE PAGING - Public address cut-in may be provided to allow a local station to dial access a public address system and broadcast an announcement. Operator paging arrangements may also be provided.

11. CODE CALL SERVICE - Provides up to 125 codes to alert a person away from his telephone that a call is waiting by sounding his code signal. The call may be answered by dialing an answer number.

12. EXECUTIVE RIGHT-OF-WAY - A specialized service which allows an executive to always be able to place a call and to break in on a busy conversation if desired.

13. DICTATION LINKS - Permits a station user to dial access a centralized dictating machine and control it by dialing additional digits.

14. MESSAGE WAITING SERVICE - Generally applied to motels/hotels. Flashes a message waiting lamp on the telephone to inform the returning party that the operator has a telephone message.

15. DO NOT DISTURB SERVICE - Generally applied to motels/hotels. Operator may operate a key which prevents any incoming calls to that telephone during the "do not disturb" period. The party can, however, originate calls.

16. MESSAGE METERING SERVICE - Generally applied to motels/hotels. To

charge local party for each local central office call that is placed.

17. **SINGLE DIGIT SPECIAL SERVICE** - Generally applied to motels/hotels for guest room services such as valet, room service, garage, etc.
18. **INTERCEPT SERVICE** - Recorder-announcers are used to provide a recorded announcement when a vacant level or number is called from the outside. Changed numbers are generally routed to the PBX attendant for assistance in extending the call.
19. **AUTOVON SERVICES** - May be provided which permit inward and outward routine and priority (4 levels) control, meeting full AUTOVON System requirements. Attendant has control to select and preempt any selected outward call and maintain status of the call. Inward priority calls have first choice attendant routing with readout display to attendant of incoming priority.

## HOW IT OPERATES

### Station Operation

**OUTGOING TRUNK CALLS** - Dial city access digit, usually "9." Restricted stations must dial turret attendant.

**TO TRANSFER A TRUNK CALL TO ANOTHER STATION** - Flash hookswitch once to place trunk party on hold, wait for dial tone, then dial number of the station to which the call is to be transferred. When the station answers, replace the handset and the call will be transferred automatically.

**TO CONSULT WITH ANOTHER STATION WHILE HOLDING A TRUNK CALL** - "Flash once" to place trunk call on hold, dial desired station. Return to original party by "flashing once" again.

**TO ESTABLISH CONFERENCE WITH ANOTHER STATION WHILE ON A TRUNK CALL** - "Flash once" to place trunk call on hold, dial desired station, with called station on line, "flash once" again to add trunk party to 3-way conference conversation. The conferencing feature may be disabled, if desired, and with the consulted party on line, the station can then repeatedly "flash" and "flip-flop" between the outside and inside parties, holding private conversations with each.

**TO RECALL YOUR ATTENDANT** - "Flash once" and dial "0." Ring-back tone will indicate that the attendant is being rung. Recalling party may talk to outside party while waiting for attendant to answer. If required, attendant may extend call to another number

with both the trunk party and recalling party on line. Recalling party may also hang up after recalling operator upon receipt of ring-back tone. Outside party locked into attendant until answer.

**CAMP-ON-BUSY** - If you hear a "splash" of tone while using your telephone, this indicates that you have another outside call waiting. When your line becomes free your telephone will ring and you will be connected to this incoming call.

**SELECTED STATION NIGHT ANSWERING (No Attendant On Duty)** - Certain stations or locations are automatically connected to incoming night calls. These stations can answer incoming trunk calls and transfer them as described above.

**UNIVERSAL NIGHT ANSWER & TRANSFER (Optional)** - Calls may be answered from any telephone by dialing an assigned digit, usually "8," when an audible signal is heard. Call may be transferred as described above.

**CODE CALL (Optional)** - Dial code call access digit, usually "6," then dial the code number of the party to be reached. The party being paged can be connected to the calling party by dialing the code call answering number.

### PROGRESSIVE CONFERENCE

- a) **Operator Controlled** - Station desiring conference dials "0" (operator) or recalls operator (if talking on a trunk call); operator will then set up the required conference.
- b) **Station Controlled (optional at night)** - The originating station may access the conference circuit by dialing an access code and progressively dialing the required conferees. If station is talking to trunk, the trunk would be transferred to the conference circuit first and then proceed as above.

### TURRET OPERATION

An attendant can perform all of the following functions with the aid of the modern turret or console supplied with the 311 PABX:

- Answer incoming trunk calls. Readout display panel informs attendant type of call she has received at her position.
- Extend incoming trunk calls to local stations with Touch Calling unit.
- Hold incoming trunk calls.
- Split to extension and to trunk.
- Accept assistance recalls from stations.



- "Camp" a trunk call on a busy local station.
- Break in on a busy local station.
- Place outgoing trunk calls for local stations.
- Make an intercom call for a local station.
- Establish night service conditions.
- Hold a call on position for special supervision control.
- Establish trunk-to-trunk connections.
- Establish trunk and local conference arrangements (optional).
- Call a local party via code call or paging (optional).

## CONSIDERATIONS (Limitations)

### General

The Type 311 PABX is a modern communications system designed for businesses which require a sophisticated heavy duty telephone system with a wide range of service features and flexibility where future growth is expected. For a customer to be completely satisfied with the 311 System, he must need and understand the various features inherent in the system. The customer must also be properly informed and educated to the system's method of operation.

### Capacity

The 311 PABX is generally designed for customers with an initial need of 50 or more trunks, and where expansion is eminent. If a customer's ultimate requirements may never exceed 50 trunks, a key-per-trunk packaged system such as the 301 might be better applied.

The Type 311 has unlimited expansibility. It will perform just as well in systems of 50 trunks or 2000 trunks. Any number of station lines and attendant turrets may be supplied for any installation.

### Availability

The Type 311 PABX is an engineered system. The current prevailing delivery schedule should be ascertained before making definite commitments to customers.

## THE MARKET

The market for the Type 311 PABX includes all customers who have or will have a need for 50 trunks or more. The unique features, expansibility and flexibility of the 311 permit it to be tailored to the needs of any customer group.

The Type 311 can easily be applied for individual station in-dialing, out-dialing and billing while still providing the intra-communications and transfer capability of a PABX. Because of this capability of the 311, it is ideally suited as an offering for Centrex, both CO and CU.

The Type 311 also has application for conventional dial PBX use where the turret location is distant from the equipment room and where the equipment is not installed at the customer premise.

Universities, large manufacturing and large office buildings are prime targets for the 311 PABX, but any customer who has the following requirements is a good prospect:

1. A great deal of direct inward dialing.
2. A great deal of direct outward dialing.
3. A desire for individual station billing of toll calls.
4. A desire to reduce attendant requirements.

## SALES STRATEGY

The recommended sales strategy for large business customers is to contact each large business customer and make a comprehensive survey and analysis of his operation and communications requirements.

To properly execute this sales strategy a great many activities must be conducted:

1. A complete information file should be established for each customer.
2. The proper time should be selected to conduct the survey.
3. All of the appropriate telephone company information should be studied.
4. All of the necessary special studies should be stated.

The customer survey has several distinct steps:

1. Setting up the survey - getting the customer's approval for the survey.
2. Preparation for the survey - reviewing all available data and scheduling the necessary studies.
3. Conducting the survey - understanding the customer's operations and determining any communications problems.

## BENEFITS AND FEATURES

Benefits	Features To Provide The Benefits
Speedy, Efficient Operation	<p>— Type 311 and CENTREX:  Direct Outward Dialing  Intercom Dialing Within the System  Station Controlled Transfer, Consultation and Conferencing  Touch Calling Completion of Calls by Attendant</p> <p>CENTREX Only:  Direct Inward Dialing  Long Distance Calls are identified by individual station numbers</p>
Attractive, Modern Design	<p>— Compact, cordless desk turrets or floor console complement any business decor.</p>
Flexible Service	<p>— Type 311 and CENTREX:  Expansible to meet all future service requirements.  No limitation as to number of lines, trunks or turrets.  Many optional services available.</p>
Reduced Attendant Workload	<p>— Type 311:  Concentrated trunks allow faster call completion.  DID option requires less attendant time.</p> <p>CENTREX:  DID and DOD calls bypass the attendant.  Attendants don't record long distance calls.</p>
Reduced, Simplified Accounting	<p>— CENTREX Only:  Individual station billing simplifies the accounting for long distance calls.</p>
Dependable Service	<p>— Type 311 and CENTREX:  The services provided are backed by the resources of the serving telephone company.</p>

4. Completing the post-survey procedures - analyzing the survey information and making recommendations.
5. The survey report proposal - presenting the customer the survey recommendations.

After the survey is completed and the sale closed, there are many coordination activities - initiating the order, before-cutover activities, etc.

### **CUSTOMER MUST SUPPLY**

To assure a satisfactory installation, the customer must supply:

1. A dust-free, well-ventilated draft-free room which provides adequate space for the initial installation, as well as future growth. Your Engineering Department can best advise as to the exact dimensions of such a room, especially, if switching equipment is to be located on customer premises as in the case of a CU or conventional 311 PABX System.

2. A source of commercial power in the equipment room.
3. The necessary conduit to satisfy the system's cable requirements.
4. Adequate space for the attendant facilities.

### **REFERENCE PUBLICATIONS**

#### **Marketing**

Type 311 Station Instruction Manual

Type 311 Attendant's Instruction Manual

Type 311 Sales Aid Brochure C-504-1099

#### **Technical**

Type 311 System Description, Operation & Applications Manual

Type 311 System Installation & Testing Manual