

# **COMDIAL**

## **ExecuTech Hybrid System**

GENERAL DESCRIPTION



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## SECTION 1 INTRODUCTION

### MANUAL SCOPE

This publication contains a general description of the ExecuTech electronic hybrid system.

This revision of GCA 40-028 supercedes all previous issues.

### RELATED PUBLICATIONS

Related publications, which contain additional information applicable to this electronic hybrid system, are available from the manufacturer.

They are as follows:

#### GENERAL INFORMATION

- IMI 01-001 Compliance Requirements To FCC Rules and Regulations Part 68 and 15
- IMI 01-005 Handling Of Electrostatically Sensitive Components

### INSTALLATION, MAINTENANCE, AND PROGRAMMING INFORMATION

- IMI 66-036 Model 1432B Installation and Maintenance Instruction
- IMI 66-054 Model 2232C Installation and Maintenance Instruction
- IMI 66-044 Model K2264 Installation and Maintenance Instruction
- IMI 66-045 Model K2296 Installation and Maintenance Instruction

### SPECIAL PROGRAMMING INFORMATION

- IMI 66-041 Video Display Terminal Programming Instructions for Model 1432B System
- IMI 66-046 Video Display Terminal Programming Instructions for Model K22xx and 2232C Systems

### USER INFORMATION

- GCA 70-066 Attendant's Guide
- GCA 70-078 Multiline Station User's Guide
- GCA 70-079 Single-Line Station User's Guide
- GCA 70-088 LCD Speakerphone User's Guide
- GCA 70-096 and GCA 70-097 Adjunct Feature Module User Guides



## SECTION 2 GENERAL INFORMATION

### CONFIGURATION

The electronic hybrid system consists of an electronic Key Service Unit (KSU), also referred to as common equipment, dedicated electronic key telephones, and interconnecting wiring consisting of small, 4- or 6-conductor, twisted-pair cable. The model K22xx systems also include a separate power supply cabinet.

This electronic hybrid system is designed to not only provide the economy and features of a conventional "1A2 type" system but also provide a much easier installation made possible with small size wiring. Advanced operating features are made possible by the electronic technology used in the common equipment and the dedicated key telephones.

The station and line capacity of the various family members are per the following chart.

MODEL	CO/PBX LINE CAPACITY	STATION CAPACITY
1432B	14	32
2232C	22	32
K2264	22	64
K2296	22	96

### COMMON EQUIPMENT DESCRIPTION

The common equipment is a fully electronic device. It is essentially a special purpose computer system acting as a communications controller between central office (CO), private branch exchange (PBX), or CENTREX supplied lines and the proprietary telephone stations.

The software architecture of the common equipment provides complete system support and great flexibility of operation. It supports the use of single-line keysets as well as multiline keysets of various feature levels.

The common equipment is contained in a functional, modern-style metal housing of contemporary design in keeping with the needs of the modern office environment. It is engineered to be wall or rack mounted. The outline dimensions of the common equipment cabinets are illustrated in **Figure 2-3**.

System power is generated by an internal power supply in the model 1432B and 2232C systems and by a self-contained, separately housed power supply assembly in the model K22xx systems.

### STATION DESCRIPTION

The telephone stations are electronic, microprocessor-controlled, devices. The multiline station is designed to allow not only multiline pickup but also single key access to features available from the serving CO, PBX, or CENTREX switch as well as the common equipment. The single-line station provides an easy-to-use intercom interface for the system user. Plus, it can dial-up and access outside lines and most available system features. All stations are full-modular and the multiline stations include an RJ11C configured auxiliary jack for use in a limited local area network scheme.

#### EXECUTECH MULTILINE TELEPHONE

- Speakerphone and non-speakerphone
- 3 fixed keys with indicators
- 3 fixed keys without indicators
- 17, 22, or 23 programmable keys with indicators (model dependent)
- Auxiliary jack (RJ11C configured)
- Push-on, push-off mute switch
- 7-foot, 6-conductor line cord
- 6 position line jack (auxiliary leads on pins 1 and 6)
- K-type handset (hearing aid compatible)
- Ringer volume control (high, medium, low)
- Desk/wall reversible

The Executech Multiline Telephone is available in several images as illustrated in **Figure 2-1 and 2-2** and described below. The image designations refer to the number of memory keys located below the keypad, including the Hold and Intercom keys, as opposed to the number of memory keys located above the keypad.

- The 2x22 image (manufacturing codes 6622-xx and 6622S-xx) provides a concise matrix grouping of all trunk keys. The image is very useful in large volume call handling situations such as in a system attendant operation.
- The 5x20 image (manufacturing codes 6620-xx and 6620S-xx) provides a concise matrix group of trunk keys along with a separate grouping of keys for priority lines. This image is useful in moderate volume call handling situations such as in a group attendant operation.

- The 10x14 image (manufacturing codes 6614-xx and 6614S-xx) provides a moderate sized trunk key matrix along with a moderate sized priority line key grouping. This image is best suited for typical work area stations.
- The LCD speakerphone (manufacturing code 6600-xx) is available in a 5x14 image. This image provides a priority line grouping, and contains a liquid crystal display which shows call handling data and other useful information. The LCD speakerphone is very applicable for use as an executive station.

#### **SINGLE-LINE KEYSET (PROPRIETARY)**

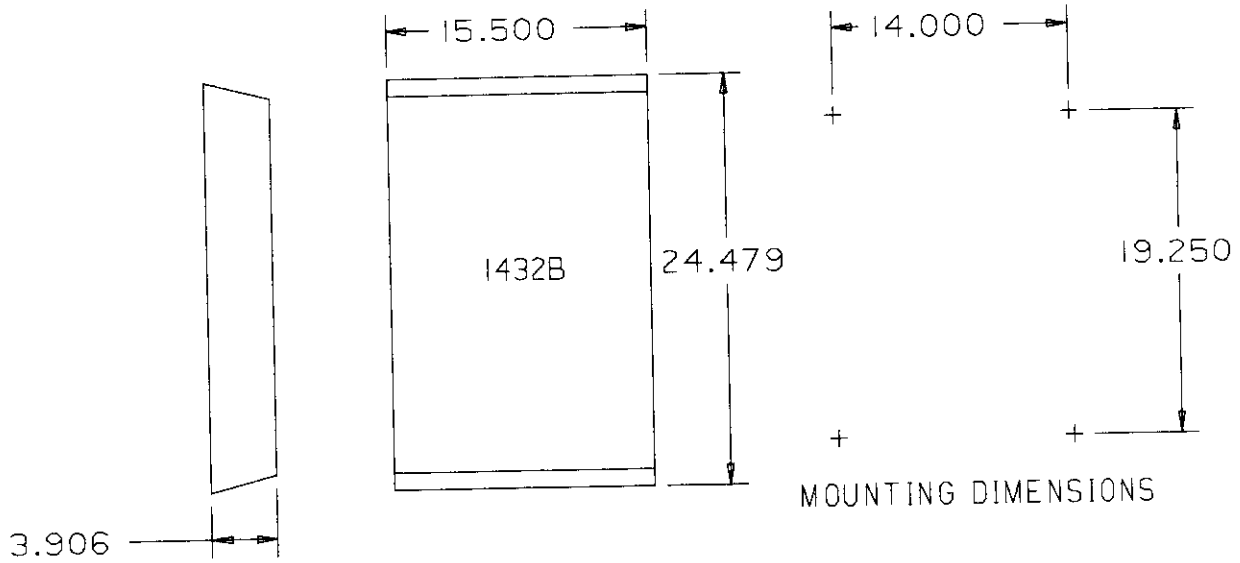
- Manufacturing codes 6509-xx and 6579-xx
- Standard 3x4 metropolitan dial
- No feature keys on model 6509-xx
- Two feature keys on model 6579-xx (SHIFT/HOLD) & TAB
- One indicator (message waiting light)
- Ringer volume control (high-low)
- Line cord, 7-foot, 4-conductor
  - 12- and 14-foot on model 6509-xx
  - 9-foot on model 6579-xx
- Line jack, 4-position
- Desk/wall reversible housing

#### **DSS/BLF CONSOLE DESCRIPTION**

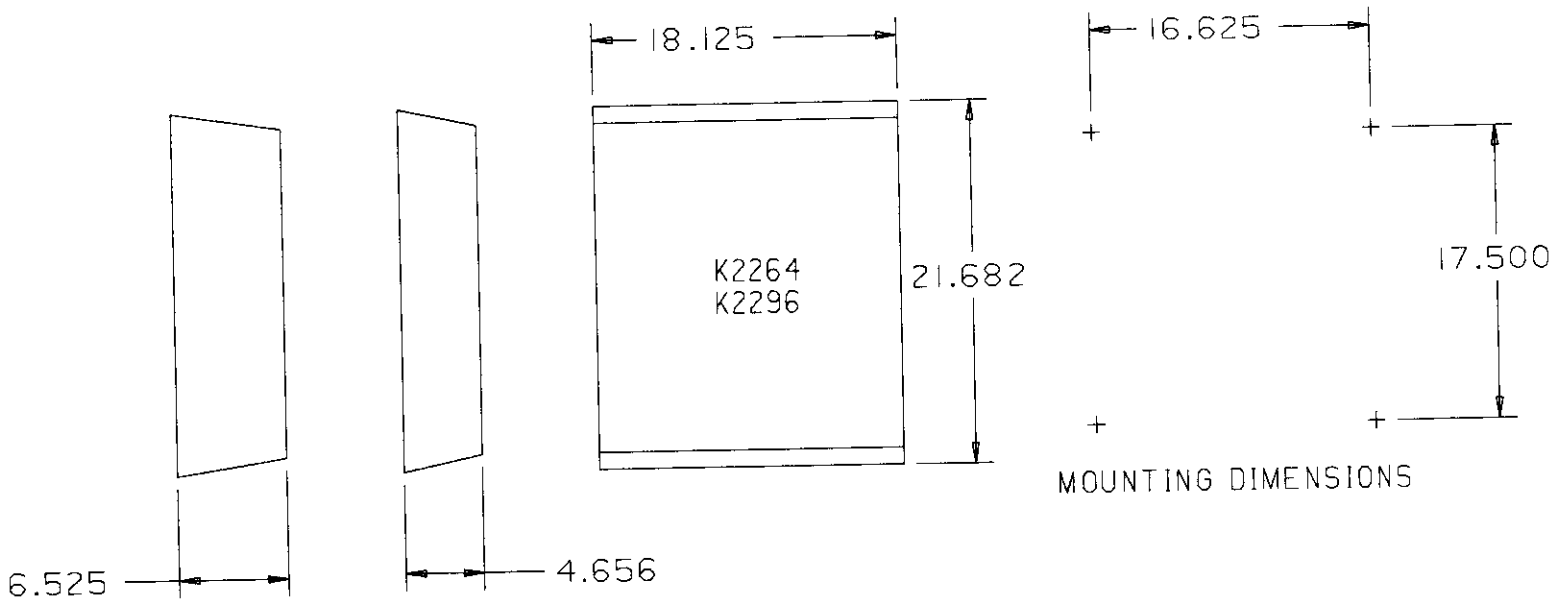
The DSS/BLF Console is designed to be a companion to a system station in high call volume situations that require a dedicated call transfer location. The Console provides a direct station selection (DSS) intercom, and an associated busy lamp field (BLF). It also provides one-key access to all-call when that feature is available. The DSS/BLF Console is also used in conjunction with a multiline telephone to provide class of service programming capability. The DSS/BLF Console is available in both 40-key and 70-key configurations.

A 32-key Adjunct Feature Module is also available. It is designed to be paired with a companion multiline telephone to extend the memory key field by an additional thirty-two keys and status indicators. The Adjunct Feature Module can be used for automatic dialing and for call handling applications. Additionally, one model contains voice announce and handsfree answer circuitry. This model allows voice announcing to a station already busy on a call and subsequent handsfree answering by that station user.





**ExecuTech Model 1432B Common Equipment Cabinet**

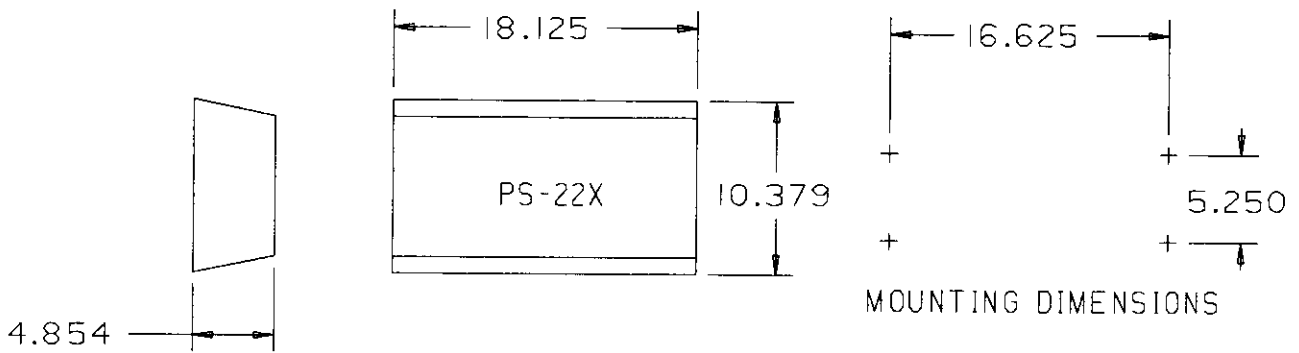


**ExecuTech Model K22xx Common Equipment Cabinet**

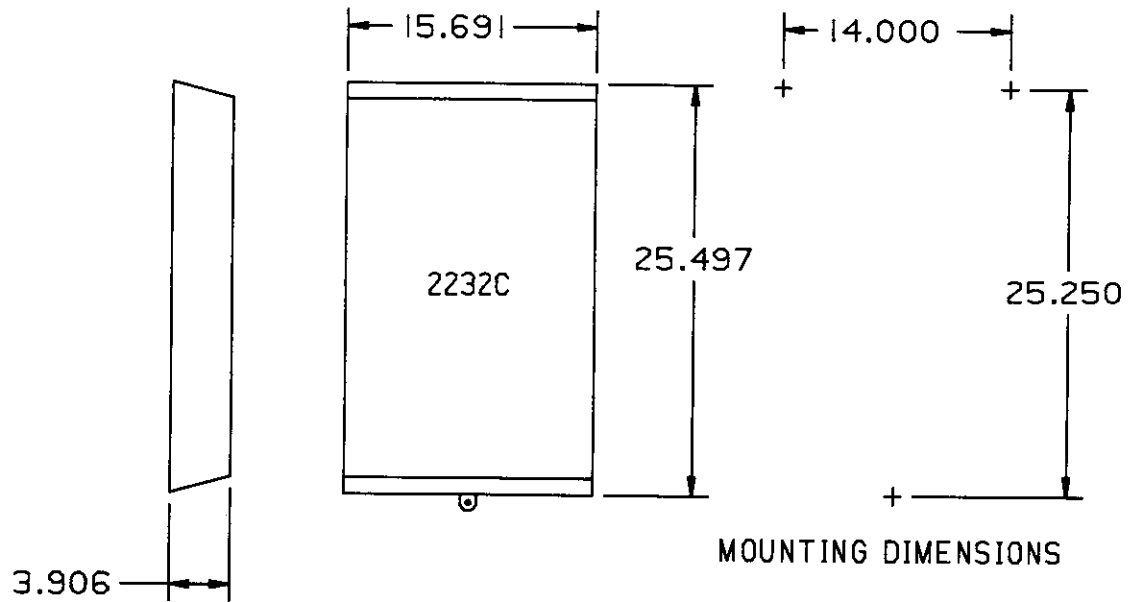
**Figure 2-3. Outline Dimensions - Common Equipment**

(continued)

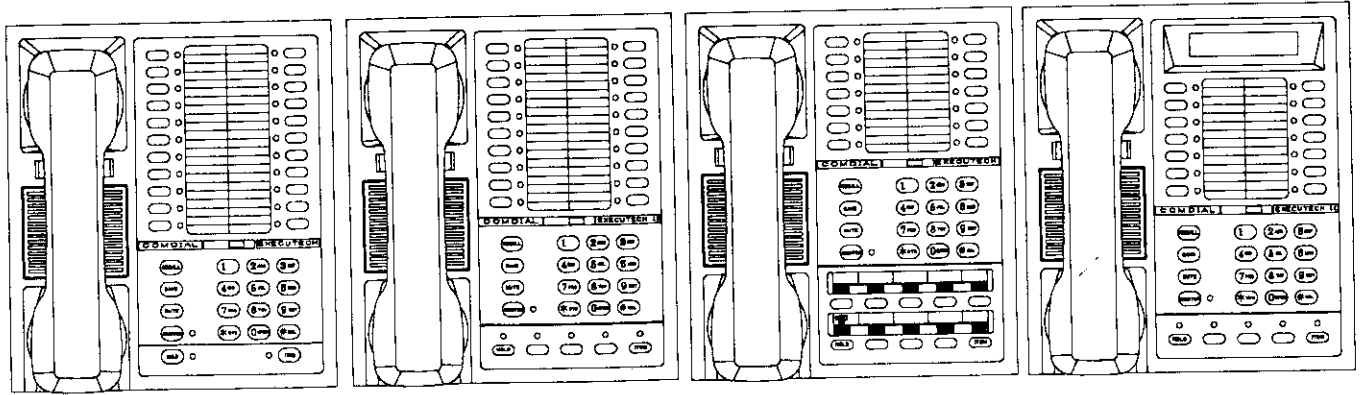
**Figure 2-3. Outline Dimensions - Common Equipment (continued)**



**ExecuTech Model PS Power Supply Cabinet (Model K22xx Systems - not required with Model 2232C Common Equipment)**



**ExecuTech Model 2232C Common Equipment Cabinet**



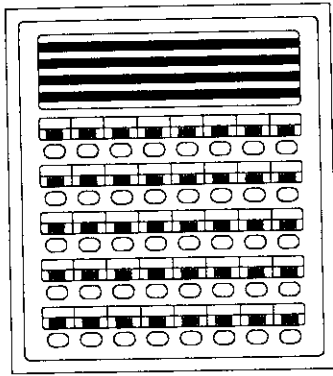
2x22 Image

5x20 Image

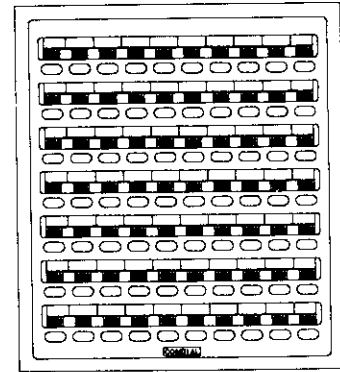
10x14 Image

LCD Speakerphone

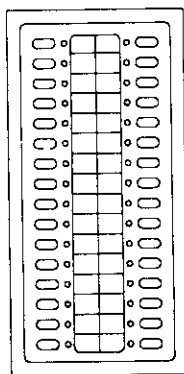
**ExecuTech Multiline Telephones**



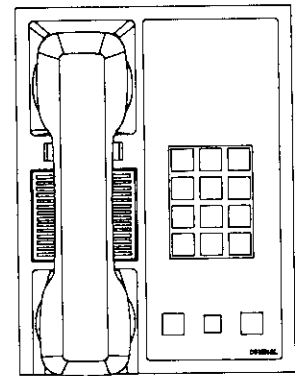
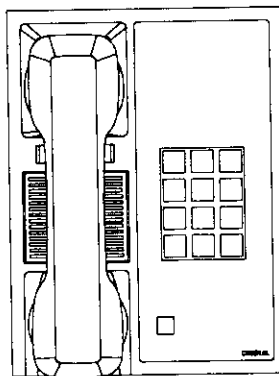
**ExecuTech 40-Key DSS/BLF Console**



**ExecuTech 70-Key DSS/BLF Console**

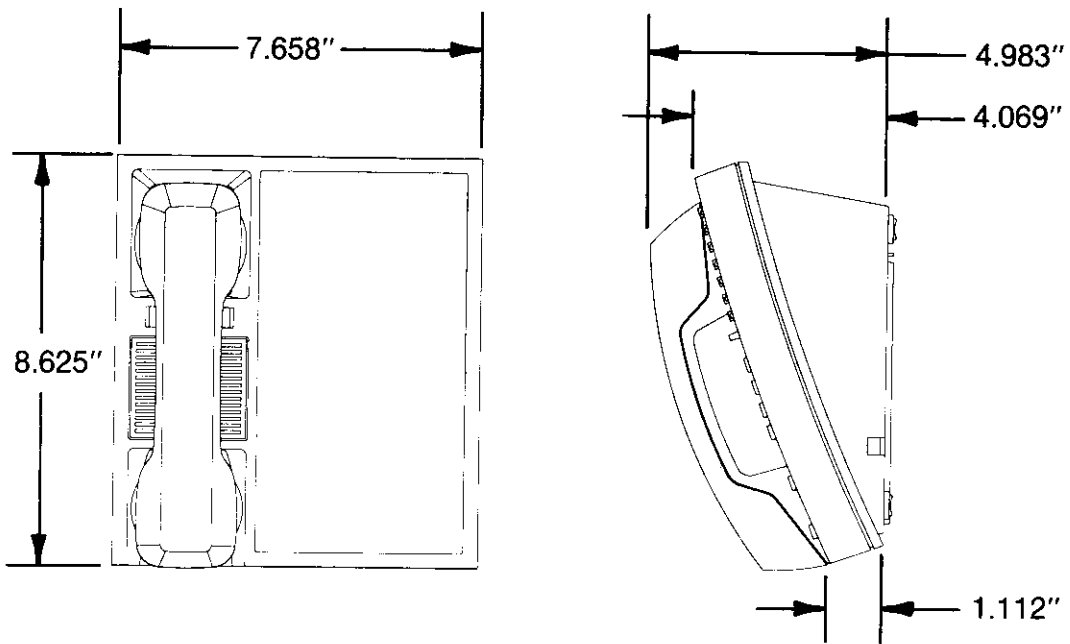


**ExecuTech 32-Key  
Adjunct Feature Module**

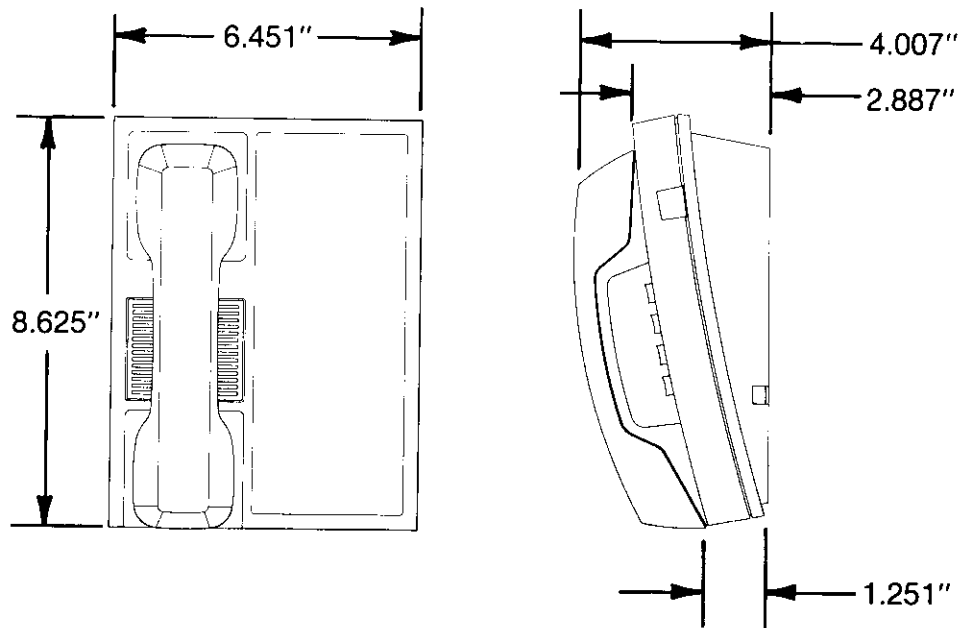


**ExecuTech Single - Line Keyset**

**Figure 2-1. System Equipment**



**ExecuTech Multiline Telephones**



**ExecuTech Single-Line Keyset**

**Figure 2-2. Outline Dimensions - Stations**

## SECTION 3 GENERAL SPECIFICATIONS

SPECIFICATION	MODEL NUMBER			
<b>SYSTEM CAPACITY</b>	1432B	2232C	K2264	K2296
LINES:	14	22	22	22
STATIONS:	32	32	64	96
DEDICATED ATTENDANT CONSOLE PORTS:	4	2	4	4
DSS/BLF CONSOLES:	16	16	32	48
INTERCOM PATHS:	8	8	8	8
MAXIMUM SIMULTANEOUS INTERCOM CONVERSATIONS:	8	8	8	8
<b>POWER REQUIREMENTS</b> (Fully loaded system)				
AC POWER:	117V +/- 10 % Singlephase - all models			
	1.5 A	1.4 A	3.0 A	3.3 A
	140 W	135 W	270 W	310 W
	180 VA	170 VA	350 VA	390 VA
<b>DIMENSIONS</b> (approximate)				
<b>COMMON EQUIPMENT</b>				
WIDTH (inches):	15.5	15.3	18.1	18.1
HEIGHT(inches):	24.5	25.5	21.7	21.7
DEPTH (inches):	3.9	3.7	4.7	4.7
WEIGHT (pounds):	32	24	27	33
<b>POWER SUPPLY</b>				
WIDTH (inches):	N/A	N/A	18.1	18.1
HEIGHT (inches):	N/A	N/A	10.4	10.4
DEPTH (inches):	N/A	N/A	4.9	4.9
WEIGHT (pounds):	N/A	N/A	27	27
<b>STATIONS</b>	MULTILINE		SINGLE-LINE	
FOOTPRINT (inches):	7.6 x 8.6		6.5 x 8.5	
WEIGHT (pounds):	2.5		1.9	
<b>STATION CABLE REQUIREMENTS</b>				
TYPE:	6-wire (3-pair) twisted, non-shielded, (2-pair twisted if networking with auxiliary jack is not required)			
MAXIMUM LENGTH:	1500 feet for multiline stations 3000 feet for single-line stations			
SWITCHING PRINCIPLE:	Solid-state, space-division analog switching with stored program control			
<b>OPERATING ENVIRONMENT</b>				
TEMPERATURE:	32-122 degrees F (0-50 degrees C)			
HUMIDITY:	90 percent relative, non-condensing			
<b>TERMINATIONS</b> (LINE AND STATION):	Standard 50-pin female connectors for connection to external distribution field			

**STATION MESSAGE DETAIL  
RECORDING PORT**

FORMAT:	Serial, pseudo RS-232C
PARITY:	None
DATA BITS:	7
STOP BITS:	2
BAUD RATE:	Programmable in class of service
HANDSHAKING:	CTS (if available) from printer RTS (if needed) from KSU
CABLE LENGTH:	500 Feet maximum

**CASSETTE RECORDER INTERFACE**

DATA:	Serial, pulse-width modulated audio 1.5Khz center frequency Baud rate of 50 (Model 1432B) Baud rate of 50 or 100 (Models K22xx)
PROGRAM LOAD TIME:	Approximately 15 minutes
CONNECTOR:	Uses music interface jack

**MUSIC INTERFACE**

INPUT LEVEL:	3 Volts peak-to-peak maximum
INPUT IMPEDANCE:	Approximately 500 Ohms
CONNECTOR:	RCA phono jack

**CENTRAL OFFICE LIMITS**

LOOP LIMITS:	1900 Ohms maximum loop
CABLE INSULATION LEAKAGE:	15000 Ohms minimum

**INDUSTRY/REGULATORY  
STANDARDS:**

FCC Certified, part 15 (Class A)  
FCC registered (fully protected)  
UL listed (power supply only)  
EIA RS478  
Bell publication 48002 guidance  
Hearing aid compatible handset

**MEMORY RETENTION  
AFTER POWER LOSS:**

30 hours minimum (typically 200 hours)

**FCC REGISTRATION NUMBER:**

CVW7WC-12829-KF-E / CVW7WC-16553-MF-E  
(Key System) (Hybrid System)

**RINGER EQUIVALANCE NUMBER:**

0.4B

## SECTION 4

### DESCRIPTION OF SYSTEM FEATURES

#### ACCESS DENIED (PRIVATE LINES)

Access to particular lines can be denied at certain stations in the system through system programming. This feature is programmable on a per line/per station basis.

#### FEATURE OPERATION

A station user cannot select a denied line for use.

#### PROGRAMMING

Access to a line by a station is denied as part of station class of service.

#### ADD-ON CONFERENCE (2 INTERNAL, 1 EXTERNAL PARTIES)

This system feature allows the stations, while operating in a private mode, to add another station to an outside call.

#### FEATURE OPERATION

This feature is available when two telephones share a common line appearance.

- Establish outside call.
- Press ITCM (outside call placed on hold automatically).
- Dial extension number.
- Ask intercom party to lift their handset, and to press and hold down line key for held line.
- Press and hold down line key of held outside call.
- Release line keys when conference is established.

*NOTE: Conference transmission levels are not compensated. Conference levels are dependent upon the quality of the external lines.*

#### PROGRAMMING

No special class of service programming is required.

#### ADJUNCT FEATURE MODULE (OPTIONAL)

A thirty-two key Adjunct Feature Module can be used to enhance call handling at multiline stations. When installed at any station port, it extends the memory key field of the data-paired companion station by an additional thirty-two keys and status lights. When in this configuration, it can be programmed for automatic dialing and for direct station selection (DSS) with busy light field (BLF) station status. The model DB32S Module also provides off-hook voice announce and handsfree answerback features to the station user.

When installed at a dedicated console port, it complements the companion station by providing a more efficient means of completing a high volume of calls. The Module offers DSS and a BLF light for each monitored telephone in the system. The DSS/BLF, in this configuration, is provided automatically by the system without having to be programmed by the user.

#### FEATURE OPERATION

Refer to the user guide associated with the optional equipment.

#### PROGRAMMING

The Adjunct Feature Module ports are identified by system class of service programming.

#### ALL-CALL PAGING (VIA STATION SPEAKERS)

All-call paging allows all stations to receive announcements through the station speaker at once. Origination of announcements must be via the handset. Each station can be programmed to receive and/or originate all-call page. ~~The system default condition is that all stations have both receive and originate capability. See the discussion titled: ZONE PAGING (VIA STATION SPEAKERS).~~

#### Feature Operation

To page,

- Press ITCM.
- Lift handset.
- Dial 50 for all-call.
- Make announcement.
- Hang up handset or wait on line for an answer.

To answer page from any telephone,

- Lift handset.
- Press ITCM.
- Dial 44.
- Meet paging party on line for private conversation.

#### PROGRAMMING

The ability of each station to originate and/or receive a page and the arrangement of the paging as all call are controlled by station class of service programming.

#### ALL INTERCOM LINKS BUSY INDICATION

When all intercom paths are busy, the system causes the intercom light at each station to be on steady.

**FEATURE OPERATION**

Station intercom light is steady on at all multiline stations.

**PROGRAMMING**

No class of service programming is required; however, station class of service will allow an intercom link to be reserved for exclusive use by a station.

**AREA PAGING INTERFACE**

A station port or line port can be programmed to interface with an external paging amplifier. The paging amplifier can then be dial accessed through the station port or directly accessed through the line port from other stations in the system. DTMF tones can be dialed through the line port to provide zone selection if provided by the external paging amplifier.

**FEATURE OPERATION**

To page using external paging amplifier,

- Dial station number for paging station.
- OR-
- Select designated line key for paging port.
- Dial paging zone access code as provided by attendant.
- Announce message and hang up.

**PROGRAMMING**

The line class of service programming arranges a line port for external paging interface, and the station class of service arranges a station port for external paging interface.

**AUTO DIAL**

Each multiline station provides programmable memory dialing features. Memory keys can be programmed to store numbers for automatic dialing purposes. The stored numbers can be up to sixteen digits in length and can include line or intercom selection, numbers, #, \*, pauses, and flash signals. A pause is stored each time the **HOLD** key is pressed, and a flash signal is stored each time the **RECALL** key is pressed. The pause and flash intervals are programmable. Any key that does not have a line assignment can be programmed as an auto dial. Additionally, an auto dial number can be stored as a secondary function at every key programmed for one-key intercom selection. Often used host PBX or CENTREX feature access codes can be stored at a memory key location to provide one-key access to the features. Also refer to the discussions titled, **AUTOMATIC PAUSE INSERTION**, **STATION SPEED DIAL**, and **PROGRAMMABLE DSS/BLF**.

**FEATURE OPERATION**

To store number,

- Press **ITCM**. Listen for tone.
- Press **SAVE**. Tone will stop.

- Press memory key. Listen for fast tone bursts.

*NOTE: If the memory key is also programmed for one-key intercom dialing (Programmable DSS/BLF), the **HOLD** key must be pressed before the memory key is pressed.*

- Enable automatic group access or line access as part of number or disable automatic access if not needed,
  - Press dial pad keys 1-4 for group 1-4 selection.
  - OR-
  - Press specific line key for line selection.
  - OR-
  - Press 0 to disable group or line selection.
- Dial the number sequence to be stored (16 digits maximum).

To store another number,

- Press **SAVE**.
- Press next memory key.
- Repeat above programming procedure.

To end programming,

- Press **MONITOR**.

To automatically dial numbers,

- Press desired memory key.

No special class of service programming is required.

- When party answers, lift handset.

**PROGRAMMING**

No special class of service programming is required.

**AUTOMATIC ABANDONED HOLD RELEASE**

If an on-hold party hangs up at the CO/PBX end of a connection, causing an interruption in the line current, the system will drop the line from the hold condition and return it to service. The time interval between hang-up and line-drop is programmable. This feature is usually dependent upon special arrangements that must be made at the CO end of the connection.

**FEATURE OPERATION**

The line select indicator will turn off to indicate an idle line condition after the feature action is complete.

**PROGRAMMING**

The line class of service programming sets the time interval between hang-up and line-drop.

**AUTOMATIC CALL-BACK**

When a busy tone is encountered, a special code number can be dialed which will cause the system to automatically ring the calling and called stations when the called station becomes idle.



**FEATURE OPERATION**

To arrange for the system to call back when a busy telephone becomes idle,

- Make intercom call. Hear busy signal.
- Dial **88**. Calling telephone will ring when called telephone becomes idle.

To answer call-back ring,

- Lift handset. Called telephone will ring.

*NOTE: Call-back is automatically cancelled if handset is not lifted.*

To manually cancel automatic call back anytime before it rings,

- Press **ITCM**.
- Dial **87**.

**PROGRAMMING**

No special class of service programming is required.

**AUTOMATIC HOLD**

This system feature is available through COS programming to selected stations. When enabled, pressing any line key will cause an active line to automatically go on hold. This feature allows a user to move from line to line without having to press the HOLD key to place any current calls on hold.

**FEATURE OPERATION**

Press any line key. Active line will automatically go on hold.

**PROGRAMMING**

The station class of service programming is used to enable this feature at the desired stations.

**AUTOMATIC HOLD TRANSFER TO INTERCOM (ANSWER HOLD)**

If the intercom line is selected while an outside line call is active, this system feature causes the outside call to be automatically placed on hold.

**FEATURE OPERATION**

While on an outside call, press ITCM or a DSS memory key to place outside call on hold and enable an intercom call.

**PROGRAMMING**

No special class of service programming is required.

**AUTOMATIC PAUSE INSERTION**

When the system stores a dialed number for later redial, it automatically stores a pause whenever the user waits between digits for at least two seconds. The automatic pause is inserted in the stored number sequence at the point where the manual pause in dialing occurred.

Pressing the HOLD key during dialing also causes a pause to be stored.

**FEATURE OPERATION**

To store an automatic pause,

- Wait between subsequent key presses while dialing or press the HOLD key during the dialing sequence.

**PROGRAMMING**

The length of the pause is set by class of service programming.

**AUTOMATIC PRIVACY (PROGRAMMABLE)**

A line can be made private or non-private through line COS programming. In the private mode, a station has exclusive use of the line during a call. No other station can access that line unless it is included through the use of the add-on conference feature. In the non-private mode, all stations with that line appearance can gain access at the same time (sometimes known as common line pickup). Also see the discussion titled, ADD-ON CONFERENCE and PRIVACY RELEASE.

**FEATURE OPERATION**

System feature which normally requires no user intervention.

**PROGRAMMING**

A line is specified as private or non-private through the line class of service programming. Through station class of service programming, a line can be made non-private at a particular station.

**AUTOMATIC REDIAL (OF BUSY NUMBER OR UNANSWERED CALL)**

Automatic redial of the last dialed number is available at every station. A busy number or unanswered call can be automatically redialed by activating this feature. Once automatic redial is activated, the station will select the line, automatically dial the number, and wait for a response. It will do this once a minute for approximately 10 minutes. The user must lift the handset to take immediate control if the call is completed. Users of the optional speakerphone station can take control by pressing the MONITOR key instead of lifting the handset.

**FEATURE OPERATION**

To redial last dialed number

- Press # #. (If on line listening to dial tone, press HOLD # #.)
- Station will redial number once a minute for ten minutes.

When the call is successfully connected,

- Lift handset to take control of call.
- To cancel automatic redial,

To cancel automatic redial,

- Press #.

#### PROGRAMMING

No special class of service programming is required.

### AUTOMATIC WAKE-UP SERVICE

The automatic wake-up service feature permits the system attendant to program into the system the time of day that a given station should be automatically dialed for a wake-up call. The dialed station will sound ten unique ring bursts that are repeated three times over an approximate three-minute time period.

#### FEATURE OPERATION

To activate from attendant's telephone,

- Press **ITCM**.
- Dial \* 1.
- Dial extension number.
- Dial wake up time (four digits 0000-2359).

To cancel,

- Press **ITCM**.
- Dial \* 1.
- Dial extension number.
- Dial **9999**.

#### PROGRAMMING

No special class of service programming is required.

### AUXILIARY EQUIPMENT INTERFACE (A-LEAD CONTROL)

Certain line ports will detect an A-lead contact closure. When the port detects an A-lead contact closure by an external device connected to one of these lines, a busy indication for this line appears at all the stations in the system. Pressing the line key on a system station cannot interrupt an external device providing the A-lead closure unless the line is programmed to be non-private.

#### FEATURE OPERATION

System feature which normally requires no user intervention.

#### PROGRAMMING

No special class of service programming is required.

### AUXILIARY JACK (DATA PORT)

Every multiline station is equipped with an auxiliary jack. This is a standard, RJ11 configured, modular jack, that connects directly across a third pair of leads (auxiliary pair) if they are provided in the premise wiring. The jack can be used to connect adjunct devices such as modem equipped personal computers or data terminals into a point-to-point network.

#### FEATURE OPERATION

System feature provided by site wiring. No user intervention is required.

#### PROGRAMMING

No special class of service programming is required.

### AUXILIARY STATION RINGER INTERFACE

The auxiliary station ringer interface provides "dry-contact" relay closures whenever station 17 rings. The contact closures track the ringing pattern of station 17, and can be used to control an external signalling device. When a particular station port is programmed to function as a PA port, the auxiliary ringer interface relay contacts automatically become supervisory contacts. They close when the PA port is called. In this configuration, they are used to enable an external PA system. Also refer to the discussion titled, COMMON AUDIBLE RINGER INTERFACE.

#### FEATURE OPERATION

This system feature does not require user intervention.

#### PROGRAMMING

No special class of service programming is required.

### BACKGROUND MUSIC

If an external music source is provided, background music can be turned on and off at individual stations. Also refer to the discussion titled, EXTERNAL MUSIC SOURCE.

#### FEATURE OPERATION

To turn music on,

- Press **ITCM**.
- Dial **45** (monitor light will turn on).
- Adjust loudness of music with call monitor speaker volume control.

To turn music off,

- Press **ITCM**.
- Dial **46** (monitor light will turn off).

*NOTE: Background music automatically turns off during calls.*

#### PROGRAMMING

No special class of service programming is required.

### BASIC KEY SERVICE (1A2)

The system provides all of the basic, 1A2-type, key service features. These features are: selective line pickup, common line pickup, multiline pickup, and hold.

#### FEATURE OPERATION

To select a line for use,

- Press line key of desired line.

To place call on hold,

- Press **HOLD** key

#### **PROGRAMMING**

No special class of service programming is required.

### **BATTERY BACK-UP**

The system memory is electronically protected during AC power failures by an electronic device sometimes referred to as a "super-cap". The stored program data will remain in memory for a minimum of 30 hours provided that the system has been powered continuously for at least 30 minutes prior to the power failure or disconnection. Some models include a system clock. On those models, the system clock will continue to run and keep time for at least 30 minutes after an AC power failure or disconnection.

#### **FEATURE OPERATION**

No user intervention is required with this feature.

#### **PROGRAMMING**

No special class of service programming is required.

### **BLOCK PROGRAMMING**

A class of service assigned to a particular station can be assigned to an entire block of stations with one programming action. This feature eliminates the need to individually program stations with the same class of service.

#### **FEATURE OPERATION**

All stations in a particular block of stations have identical operating features.

#### **PROGRAMMING**

Block programming can be performed after a station class of service has been programmed for a particular station. Block programming will program a group of stations with that same class of service.

### **CALL ANNOUNCE WITH HANDSFREE ANSWERBACK**

The internal speaker at each multiline station provides call-announce capability over the intercom link. A hands-free response to a call-announce call can be made. This response is transmitted by the microphone built into the handset.

#### **FEATURE OPERATION**

To call announce to another station,

- Lift handset.
- Press **ITCM**.
- Dial extension number. (To call system operator, dial 0.)
- Speak to called party.

To answer call announce in handsfree manner,

- Hear announcement.
- Reply by speaking toward telephone.
- Lift handset if privacy is desired.

#### **PROGRAMMING**

No special class of service programming is required.

### **CALL FORWARDING**

Call forwarding allows a station user to designate another station number (or the attendant station number) to be the recipient of intercom calls normally directed to that user's station. For each call received while call forward is enabled, a ring reminder (short tone burst) will be sounded at the forwarding station to remind the user that the calls are being forwarded.

#### **FEATURE OPERATION**

To forward intercom calls to another telephone,

- Press **ITCM**.
- Dial **54**.
- Dial extension number of telephone to which calls are to be forwarded.

To cancel call forward,

- Press **ITCM**.
- Dial **55**.

#### **PROGRAMMING**

No special class of service programming is required.

### **CALL MESSAGING**

If a station has a DSS/BLF appearance at another station, a call-back message indication can be left at the station with the DSS/BLF appearance. By dialing a special code, the BLF light at the called station that is assigned to the calling station can be activated. This light indicates that a call back is requested. The light is automatically turned off if a successful call-back is made.

If a station number is not programmed for a DSS/BLF appearance at another station, attempting to place a call back message will cause the central message desk station to ring. If there is no central message desk assigned, no action will occur.

#### **FEATURE OPERATION**

To turn on call-back message light at another station,

- Make intercom call. Hear ring back tone.
- Dial **86** (BLF light at called telephone will flutter).
- Hang up handset.

To turn off call-back message light at another station,

- Press **ITCM**.
- Dial **43**.
- Dial extension number of telephone to which the call message was sent.

**PROGRAMMING**

No special class of service programming is required.

**CALL MESSAGE DISPLAY**

Standard and system supplied custom display messages can be set by dialing a specific code at any multiline station. Such messages are to be received and displayed by any LCD speakerphone that calls the station which set the message. When a message is set, the intercom light at the setting station will flash to indicate that the feature is active.

**FEATURE OPERATION**

To turn on "BACK AT" message,

- Press **ITCM**.
- Dial **56**.
- Dial **1**. Intercom light will flash.
- Dial time of return in twelve-hour format.
  - Dial \* to display dash character.
  - Dial # to display colon character.
- Press **MONITOR**.

To turn on "CALL" message,

- Press **ITCM**.
- Dial **56**.
- Dial **2**.
- Dial extension number.
- Press **MONITOR**.

To turn off message,

- Press **ITCM**.
- Dial **56**.
- Press **MONITOR**.

**PROGRAMMING**

No special class of service programming is required.

**CALL MONITOR**

Multiline stations include an internal speaker which allows handsfree call progress monitoring, voice announced intercom, and paging messages. The handset must be lifted to originate an intercom call and to complete a two-way transmission after a party called on an outside line answers.

**FEATURE OPERATION**

- Press line key. Hear dial tones.
- Dial number. Hear call progress tones.
- When party answers, lift handset.

**PROGRAMMING**

No special class of service programming is required.

**CALL PARK**

The call park feature is similar to a manual hold condition. A call that is parked from a particular station can be retrieved at any station in the system by dialing the appropriate access code. (Note: the retrieving station cannot have access denied to the line on which the call appears.) Calls are parked and retrieved within the system through the use of dialing codes. The system provides four parking circuits (orbits). Call park, when used with the paging features, allows a system attendant to direct calls to roving personnel. A call which is left in a parking orbit for two minutes automatically returns to a timed hold recall condition at the station which originally parked the call.

**FEATURE OPERATION**

To park a call,

- Press **ITCM**.
- Dial orbit access number (61, 62, 63, or 64).
- Use intercom or paging system to announce call and orbit number.

To retrieve a parked call,

- Hear announcement.
- Pick up handset.
- Press **ITCM**.
- Dial orbit retrieval number (71, 72, 73, or 74).
- Answer call.

**PROGRAMMING**

No special class of service programming is required.

**CALL PICKUP**

A user at any station can dial a special prefix code, followed by the number of a ringing station, to answer the ringing call.

**FEATURE OPERATION**

To answer an intercom call that is ringing at another station,

- Lift handset.
- Press **ITCM**.
- Dial **49**.
- Dial extension number of ringing station.

**PROGRAMMING**

No special class of service programming is required.

**CALL TRANSFER**

Call transfer allows outside calls to be transferred from one station to another, via the intercom link, in one of two ways. If both

stations have access to the line, a common line pickup transfer can be effected. If the other station does not

have access to the incoming line, transfer can still take place using the system transfer feature. Also refer to the discussion titled, UNSCREENED TRANSFER.

#### FEATURE OPERATION

For call transfer on a shared line,

- Press **ITCM**. (Outside call is placed on hold automatically.)
- Dial extension number and await answer.
- Announce call and line number.
- Hang up handset.

For call transfer without shared line,

- Press **ITCM**. (outside call is placed on hold automatically.)
- Dial extension number and await answer.
- Announce call, and ask that user to lift their handset.
- Press **RECALL**. (A three-way connection is established.)
- Hang up your handset.

To return to outside call (busy or no answer),

- Press flashing line key on multiline station.
- OR-
- Dial \* on single-line station

#### PROGRAMMING

No special class of service programming is required.

### CALL WAITING TONE

The call waiting tone may be signalled to a busy station to indicate that another station or the attendant wants to contact the busy station. A special code is dialed to activate the tone.

#### FEATURE OPERATION

To send call waiting tone and wait on line for an answer (camp-on),

- Place intercom call.
- Hear busy tone.
- Dial **89** (called party hears tone). Do not hang up handset.
- When called telephone becomes idle, the waiting call will ring.

To answer call waiting tone,

- Hear tone (short tone burst sounds in handset receiver).
- Complete present call and hang up (camped-on call will begin ringing).
- Lift handset.

To cancel call waiting tone from originating station,

- Hang up handset.

#### PROGRAMMING

No special class of service programming is required.

### CALLING STATION IDENTIFICATION

If the station number of a calling station has been programmed into the DSS/BLF of a called station, the calling station will be identified by the flashing BLF light at the called station.

#### FEATURE OPERATION

The lights adjacent to memory keys indicate status of DSS telephones: dark = idle, steady-on = in use, flash = calling, and flutter = call back request (if feature is available).

#### PROGRAMMING

No special class of service programming is required.

### CLASS OF SERVICE PROGRAMMING (FROM MAIN STATION)

All class of service (COS) programming is performed from station 10 (also station 11 with some systems). COS programming is used by the installer to configure and assign the system, line, and station operating conditions.

#### FEATURE OPERATION

Class of service programming can be performed using instructions provided in the Installation and Maintenance Instruction (IMI) for the system.

### CLASS OF SERVICE PROGRAMMING (EACH LINE AND STATION)

Each line and station in the system can be programmed with a unique class of service operating condition.

#### FEATURE OPERATION

System, line, and station class of service programming can be performed using instructions provided in the Installation and Maintenance Instruction (IMI) for the system.

### CLASS OF SERVICE PROGRAMMING (VIDEO DISPLAY TERMINAL)

Any asynchronous, serial data terminal with an RS-232 interface can be used to effect class of service programming through menu-driven procedures.

#### FEATURE OPERATION

VDT programming provides a menu driven approach to COS programming and is discussed in the following Comdial publications:

IMI 66-041 - Model 1432B system

IMI 66-046 - Model K22xx and 2232C systems

### CLASS OF SERVICE PROGRAM PRINTOUT

Connection terminals are provided to interface any RS-232 compatible, asynchronous serial data printer to the

system. The connected printer will provide a printout of class of service and toll restriction records.

#### FEATURE OPERATION

Operation of the data printer is discussed in the manual supplied by the manufacturer of the device.

#### PROGRAMMING

The printout class of service programming determines the nature and extent of each requested printout. The system class of service programming specifies the baud rate of the data and the length of the printout line.

### CLASS OF SERVICE PROGRAM STORAGE (CASSETTE TAPE RECORDER INTERFACE)

A customer supplied cassette tape recorder can be used to both store and load class of service programming data. Control is provided from the programming station, and connection is through the music interface jack. COS recording or loading requires approximately 15 minutes. The programming station will ring when recording or loading is complete. In addition to storing COS data, the 22xx systems can be arranged to provide all memory dialing numbers for cassette tape storage.

#### FEATURE OPERATION

This feature operation is part of class of service programming.

To record currently stored COS program values for later use,

- Install blank cassette tape, and prepare recorder for recording.
- Cause recorder to begin recording blank cassette tape from beginning.
- Press **ITCM \* 7 4 6 \* ITCM**.
- Press appropriate program key to start recording process.
  - C37 = All COS data
  - C34 = All speed dials
  - C35 = Autodials (Station ports 010 - 057)
  - C36 = Autodials (Station ports 058 - 105)

To compare recorded values with system values,

- Rewind cassette tape, and prepare recorder for playback.
- Press **ITCM \* 7 4 6 \* ITCM**.
- Press program key **C38**.
- Start tape playback.

To verify previously recorded cassette tape,

- Rewind pre-recorded cassette tape, and prepare recorder for play-back.
- Press **ITCM \* 7 4 6 \* ITCM**.
- Start tape playback.
- Press program key **C39**.

To load previously recorded COS program values into system,

- Install pre-recorded cassette tape, and prepare recorder for playback.
- Press **ITCM \* 7 4 6 \* ITCM**.
- Load COS features,
  - Press **HOLD**.
- OR-
- Load memory dialing numbers,
  - Press **RECALL**.
- Start tape playback.

#### PROGRAMMING

No special class of service programming is required.

### COMMON AUDIBLE RINGER INTERFACE

Connections are available at the key service unit which provide "dry-contact" relay closures whenever an incoming line rings. These contact closures track the ringing pattern and can be used to control an external signalling device. When a particular station port is programmed to be a PA port, the common audible ringer interface contact points automatically become supervisory contacts which close when the PA port is called. In this configuration, they are used to enable an external PA system. Also, see the discussion titled, AUXILIARY STATION RINGER INTERFACE.

#### FEATURE OPERATION

No user intervention is required with this feature.

#### PROGRAMMING

No special class of service programming is required.

### DEDICATED INTERCOM FOR ATTENDANT

This programmable feature insures that an attendant at a principal call answering position will always have a free intercom link to use for announcing the incoming calls to the stations. Intercom links can also be reserved for exclusive use by any particular station in the system.

#### FEATURE OPERATION

To gain access to the reserved intercom link, press the **ITCM** key.

#### PROGRAMMING

An intercom link is reserved for use by a particular station through station class of service programming.

### DEFAULT FUNCTIONAL PROGRAM

At initial power up of the system, the operating features are set to a specific group of operating conditions (default conditions). The default conditions provide a complete operating system for normal use. It can be

left as a defaulted system or reprogrammed as desired. Default conditions can be reset if desired.

#### FEATURE OPERATION

A system can be defaulted by class of service programming.

### DELAYED RINGING

Ring assignments are programmable. A station can be programmed to provide delayed ringing on some lines while providing immediate ringing on other lines.

#### FEATURE OPERATION

No user intervention is required with this feature.

#### PROGRAMMING

Delayed ringing is assigned certain lines at each station through station class of service programming.

### DIAL 0 FOR SYSTEM ATTENDANT

The system attendant station (station 10) is signalled whenever the digit 0 is dialed on the intercom line.

#### FEATURE OPERATION

To call operator,

- Press **ITCM**.
- Dial **0**.

#### PROGRAMMING

No special class of service programming is required.

### DIRECT STATION SELECTION INTERCOM

Refer to the discussion titled, PROGRAMMABLE DSS/BLF.

### DISTINCTIVE RINGING

The ringing cadence of an incoming call is the same as the ringing cadence of the TELCO, PBX, or CENTREX system. The ringing cadence of an intercom call presents two tone bursts sounded every 4 seconds.

#### FEATURE OPERATION

The user can distinguish between inside and outside calls.

#### PROGRAMMING

No special class of service programming is required.

### DO NOT DISTURB

Any station can be set to a do-not-disturb mode using the **MONITOR** key. While in this mode, the station will not ring on any incoming call nor will it accept an intercom call. A party making an intercom call to a station set in the do-not-disturb mode hears a busy tone. The feature cannot be overridden by the calling party.

#### FEATURE OPERATION

To silence ringer and appear busy to intercom calls,

- Press **MONITOR**. (monitor light will turn on).

To cancel,

- Press **MONITOR** again. (monitor light will extinguish)

#### PROGRAMMING

No special class of service programming is required.

### DSS/BLF CONSOLE (OPTIONAL)

The DSS/BLF Console is designed to be a companion to any multiline station. It is useful with high call volume systems which require a dedicated call transfer location. The console provides a one-key direct station selection (DSS) intercom and an associated busy lamp field (BLF). It also provides one-key access to system-wide, all-call paging. The console is designed to be connected to special console ports or to any station port and serve as a companion to the station connected to the adjacent data-paired port. Also refer to the discussion titled, ADJUNCT FEATURE MODULE.

#### FEATURE OPERATION

Refer to the user guide associated with the optional equipment.

#### PROGRAMMING

No special class of service programming is required.

### DUAL VOLUME CONTROLS (SPEAKER OUTPUT LEVEL, RINGER LOUDNESS)

A faceplate mounted volume control on the multiline station can be adjusted to set the audio level of the speaker output. A rear mounted volume control can be adjusted to set the audio level of the tone ringer.

#### FEATURE OPERATION

To adjust volume levels,

- Slide faceplate mounted monitor speaker volume control to left to lower volume and to right to raise it.
- Set rear mounted ringer volume control switch to left for off, to right for high volume, and in middle for low volume.

#### PROGRAMMING

No special class of service programming is required.

### DYNAMIC LINE KEYS

Through class of service programming, certain idle line keys can be arranged to serve as dynamic line keys. This feature allows the system to temporarily assign a line to a station which normally does not have the line assigned to it, and have that line appear on a dynamic line key. While the call is in appearance at the dynamic

line key, any normal call handling operations can be performed.

#### FEATURE OPERATION

A call that is on a line not assigned to a station may be transferred to that station and appear at a line key reserved for that purpose.

#### PROGRAMMING

The station class of service key mapping procedure allows certain keys to be programmed as dynamic line keys.

### END TO END SIGNALLING (OFF-HOOK DIALING)

After a call has been established, the system can continue to send dialing signals (DTMF tones) through the TELCO network, and have them received at the distant end for inward call completion (bank by phone, etc.). This conventional, off-hook dialing feature can be performed from every station in the system.

#### FEATURE OPERATION

After dialing a number and receiving an answer, additional numbers can be dialed if required for some purpose by the called party.

#### PROGRAMMING

No special class of service programming is required.

### EXECUTIVE/ATTENDANT OVERRIDE

Selected stations in a system can be provided with busy override. This feature allows the user of such a station, upon encountering a busy signal at another station, to dial a code which will override the busy signal of an intercom call, sound a warning tone, and allow access to the existing conversation.

#### FEATURE OPERATION

To break into intercom conversation at another station,

- Make intercom call. Hear busy tone.
- Dial **77**. (Warning tone sounded at called station.)
- Join in-progress call. Any one of the parties can leave the conference without dropping the connection to the other two.

#### PROGRAMMING

This feature is made available to a station through station class of service programming.

### EXCLUSIVE HOLD

Exclusive hold prohibits a held call from being retrieved by any other station. The exclusive hold condition also links the held call to the timed hold recall timeout feature. After timeout, audible and visual signalling will occur and the exclusive hold condition will revert to a normal line hold condition.

#### FEATURE OPERATION

To engage exclusive hold of active call,

- Press **HOLD** twice.

#### PROGRAMMING

No special class of service programming is required.

### EXTERNAL PAGING INTERFACE

Refer to the paragraph titled, AREA PAGING INTERFACE.

### EXTERNAL POWER SUPPLY

A self-contained power supply cabinet provides necessary DC voltages required by the system for operation. Each individual power supply voltage is fuse protected and monitored by a separate status light.

#### SYSTEM AVAILABILITY

Available for model K22xx hybrid systems only. Not required with model 1432B and 2232C systems.

#### FEATURE OPERATION

Automatic operation as a system function.

#### PROGRAMMING

No special class of service programming is required.

### FLASH/RECALL

When host system custom calling features are available via a "flash" signal, the system can be programmed so that the **RECALL** key will generate a "flash" signal when it is pressed. When custom calling features are not available, the **RECALL** key functions as a positive disconnect or dial tone recall key. These two features are mutually exclusive.

#### FEATURE OPERATION

If system has been configured for flash,

- Press **RECALL** to generate a timed flash signal.

If system has been configured for recall,

- Press **RECALL** to disconnect current call and receive a new dial tone for another call.

#### PROGRAMMING

The flash/recall time is assigned through system class of service programming.

### FLEXIBLE STATION NUMBERING PLAN

The system supports a flexible station numbering plan for individual stations. Each station can be programmed to respond to the dialing of any available number between 100 and 399. Furthermore, the model 2232C provides 4-digit, flexible numbering between 100 and 8999. This feature may be used to match the call-



ing number of a station located in a pre-numbered area to that area number.

#### **SYSTEM AVAILABILITY**

This feature is available with model 2232C and 22xx systems only. Model 1432B systems employ fixed, two-digit intercom dialing codes for each station port.

#### **FEATURE OPERATION**

No user intervention is required with this feature.

#### **PROGRAMMING**

The system class of service programming is used to assign extension numbers to individual station ports.

### **FLEXIBLE RINGING ASSIGNMENTS**

Ringling assignments are programmable on a per station/per line basis. Ringling can be controlled for every line that has an appearance at each station. Refer to the paragraph titled, DELAYED RINGING.

#### **FEATURE OPERATION**

No user intervention is required with this feature.

#### **PROGRAMMING**

Delayed ringing is assigned certain lines at each station through station class of service programming.

### **FLEXIBLE TOLL RESTRICTION**

System toll call restriction can be configured, by Class Of Service programming, to prohibit some or all stations from calling a wide range of number combinations. The restricted numbers are specified on up to sixteen tables. The system assigns several broad-range values to two of these tables, and assigns the tables to all lines as a default condition. The default tables need only to be enabled on a per station basis to activate the default toll restriction.

#### **FEATURE OPERATION**

In general, toll restriction works as follows:

- The programmable tables of restricted numbers contain up to four entries with each entry containing up to sixteen digits.
- Each table of restricted numbers can be programmed to be an "allow" table or a "deny" table with entries in an "allow" table overriding entries in a "deny" table. This arrangement allows exceptions to toll restriction to be enabled. For example, the dialing of 1-800-xxx-xxxx numbers can be allowed even though the dialing of all 1-xxx-xxx-xxxx numbers is denied.
- A "match anything" symbol (#) can be stored to represent any digit from 1 to 0. The programmed toll restriction tables are individually assigned to each appropriate station and line. When an outside call is dialed, the system examines the dialed number and makes a comparison between it and the toll restriction tables. Any tables assigned to BOTH the

station being used and the selected line determine the restrictions to be imposed.

- Dialing a restricted number on a restricted line from a restricted station will cause the line to be automatically disconnected from the station.

#### **PROGRAMMING**

Toll table class of service programming is used to create the tables of restricted numbers.

### **HANDSFREE ANSWER INHIBIT**

The **MUTE** key on a multiline station can be used to block all handsfree answerback response. This arrangement will prevent a station user from monitoring another station site using the monitoring ability of the voice announce feature. When the key is pressed, all handsfree answerback is disabled thus inhibiting any off-site monitoring. The monitor light will flash to indicate that this feature is active. Also refer to the discussion titled, **MUTE**.

#### **FEATURE OPERATION**

To inhibit handsfree answerback,

- Press **MUTE**. Monitor light will flash.

To enable handsfree answer back,

- Press **MUTE** again. Monitor light will turn off.

#### **PROGRAMMING**

No special class of service programming is required.

### **HEARING AID COMPATIBLE HANDSET**

The station handset is compatible with magnetically-coupled hearing aids.

#### **FEATURE OPERATION**

No user intervention is required with this feature.

#### **PROGRAMMING**

No special class of service programming is required.

### **HUNT GROUP**

Station ports can be assigned to intercom hunt groups. When a station that is assigned to a hunt group is busy, a call to it will ring at the next idle station in the group. A hunt group can be open-ended or circular. A call will route down an open-ended group from the called station until it enters an idle station or reaches the end of the group. A call will search around a circular group until it encounters an idle station or until all stations in the circular group are searched. Up to sixteen stations can be placed in one hunt group.

#### **FEATURE OPERATION**

No user intervention is required with this feature.

#### **PROGRAMMING**

Hunt groups are created through station class of service programming.

## I HOLD AND I USE INDICATIONS

The light associated with a line key provides a visual indication of the status of that line. When a station user has a line in-use or on-hold at a station, the light indication provided at that station is of a different flash rate than the indication provided at the other stations in the system.

### FEATURE OPERATION

No user intervention is required with this feature.

### PROGRAMMING

No special class of service programming is required.

## ~~IDLE LINE PREFERENCE~~

The system can be programmed on a per station basis to enable idle line preference. When idle line preference is enabled, taking the handset off-hook will automatically connect the station to any assigned line that is idle and has been arranged for this feature. The line key will not have to be pressed. This feature is mutually exclusive with prime line automatic.

### FEATURE OPERATION

To use idle line preference,

- Lift handset. System automatically selects idle line for use.
- Dial number.

### PROGRAMMING

The station class of service programming enables this feature on a per station/per line basis.

## INTERCOM CALL PROGRESS TONES

Intercom call progress is marked by special tones. A steady tone is provided for dial tone. For tone signalled intercom calls, a two-tone burst is sounded every four seconds at a called station and returned to the caller as ring back. For a voice signalled intercom call, a single tone burst is sounded at a called station and returned to the caller as ring back. When a called station is busy on an outside call, a busy signal of two tone bursts sounded every second is received at the calling station. When a called station is busy on the intercom, a busy signal of one tone burst sounded each second is received at the calling station.

### FEATURE OPERATION

No user intervention is required with this feature.

### PROGRAMMING

No special class of service programming is required.

## INTERCOM LINE LOCKOUT

Refer to the discussion titled, VOICE ANNOUNCE BLOCKING.

## INTERCOM LINE TIMEOUT

Should the intercom line be selected with no dialing or other action taking place, the intercom will timeout after ten seconds, and return to an idle state.

### FEATURE OPERATION

No user intervention is required with this feature.

### PROGRAMMING

No special class of service programming is required.

## LCD SPEAKERPHONE (OPTIONAL)

This optional multiline station provides all normal speakerphone features with the addition of a Liquid Crystal Display (LCD). The display provides a desk clock and calendar combination while the station is idle. When a call is in progress, the display provides an elapsed time indication for call duration timing. Other call handling and information displays are also available to enhance telephone use.

### FEATURE OPERATION

Refer to the user guide associated with the optional equipment.

### PROGRAMMING

The LCD speakerphone ports are identified by system class of service programming.

## ~~LAST NUMBER REDIAL~~

Each station is provided with a last number redial feature. This feature will save thirty-two digits of the last outside number dialed. A newly dialed number will always automatically replace a previously dialed number. Upon command, the system will choose a line and redial the saved number. The system will first choose the prime line if assigned and idle. If it is busy or unavailable, the system will choose any line assigned to idle line preference. If they are unavailable, the system will choose the last line used at the station. If it is busy, no further choice is made. Also refer to the discussion titled, AUTOMATIC PAUSE INSERTION.

### FEATURE OPERATION

To use last number redial,

- Press #. (If on line listening to dial tone, press HOLD #.)
- Listen for ringing or busy tone.

### PROGRAMMING

No special class of service programming is required.

## ~~LINE GROUPS~~

Outside lines can be grouped together in up to four different groups. Each group is accessible through a unique dialing code or automatically selected with the programmable autodial feature. Grouping can reserve

certain lines for certain clusters of stations as in a tenant-service arrangement or reserve certain lines for access only by single-line keysets. The assignment of line groups frees station keys normally used for line selection thus making these keys available for use with a feature such as personal DSS/BLF with call messaging.

#### FEATURE OPERATION

To access a line group,

- Press **ITCM**.
- Dial line group access code.
  - 9 = group 1
  - 82 = group 2
  - 83 = group 3
  - 84 = group 4

#### PROGRAMMING

Lines are placed in line groups with the line class of service programming.

### LINE PRESELECTION

A line can be manually selected before lifting the handset (for handsfree dialing) or after the handset is lifted.

#### FEATURE OPERATION

Press line key to select desired line.

#### PROGRAMMING

No special class of service programming is required.

### LINE QUEUING

With the line queuing feature, a special code number can be dialed which will place a station in a queue where it awaits the availability of a line or line group. The station is automatically signalled when the line is available to it for use.

#### FEATURE OPERATION

To queue for busy outside line,

- Press **HOLD**.
- Press line key. Hear tone burst.

To queue for line group,

- Lift handset.
- Press **ITCM**. Listen for intercom dial tone.
- Dial trunk group access code (9, 82, 83, or 84). Hear busy tone.
- Dial **88**.
- Hang up handset.

To answer line queuing ring-back,

- Lift handset, hear dial tone on line, and place call.

To cancel queuing,

- Press **ITCM**.
- Dial **87**.

#### PROGRAMMING

No special class of service programming is required.

### MANUAL HOLD

A key activated feature at each station will place an outside line on hold. Pressing the **HOLD** key holds the call, provides a distinctive flash rate of the line key indicator, and allows the user to access other station features. The holding station or any other station which has access to the line can retrieve the held call.

#### FEATURE OPERATION

- Press **HOLD**.

To return to call on hold,

- Press line key with flashing light.

#### PROGRAMMING

No special class of service programming is required.

### MEET-ME ANSWER PAGE

Any station user can dial a special code number in response to an all-call or zone page and be connected to the paging party in a private conversation.

#### FEATURE OPERATION

To page for meet-me answer,

- Press **ITCM**.
- Lift handset.
- Dial zone number - (53, 52, 51, or 50 for all-call).
- Make announcement.
- Wait on line for an answer.

To meet paging party on line,

- Hear page.
- Lift handset.
- Press **ITCM**.
- Dial **44**.
- Meet paging party on line for private conversation.

#### PROGRAMMING

All call or zone paging is provided to the stations through the station class of service programming.

### MEMORY BACK-UP

Refer to the discussion titled, BATTERY BACK-UP.

### MESSAGE WAITING

Special dialing codes enable a station user to control the message waiting (MW) light at other stations in the system. When the message waiting light is turned on at a station, a call can be automatically placed to the station which turned it on.

Alternately, one station can be designated by COS programming as the central message desk and be arranged for exclusive message waiting control. The

central message desk can be used to control message waiting lights and deliver messages to and from all other stations in the system.

#### FEATURE OPERATION

To turn on MW light,

- Press **ITCM**.
- Dial **42**.
- Dial station. MW light will turn on at called station.

To turn off MW light,

- Press **ITCM**.
- Dial **43**.
- Dial station number. MW light will turn off at called station.

To turn off MW light while giving message,

- Press **HOLD** during conversation.

To receive messages,

- Press **ITCM**.
- Press **HOLD**. Call to message desk is automatic.

#### PROGRAMMING

Station class of service programming provides a station with the ability to originate a message waiting signal. System class of service programming is used to create a central message desk.

### MIXED STATION CAPACITIES

The system supports a mixture of multiline and proprietary single-line telephone stations.

#### FEATURE OPERATION

Individual station operation is discussed in user guides which accompany the station.

#### PROGRAMMING

System class of service programming identifies the type of station which will be connected to each port.

### MODULAR WIRING AND JACKS/4- OR 6- CONDUCTOR WIRE SYSTEM

The system can be completely interconnected by employing industry standard 50-pin connectors and modular plug/jack combinations. Station wiring is small, 4- or 6-conductor, twisted-pair cable throughout the system.

#### FEATURE OPERATION

No user intervention is required with this feature.

#### PROGRAMMING

No special class of service programming is required.

### MOMENTARY KEYS WITH LED INDICATORS

The station keys are momentary contact, press and release types. They provide line selection, call monitoring, and other feature selection. Visual indication of the feature selection is provided by solid-state, long-life, light emitting diodes (LEDs).

#### FEATURE OPERATION

Press and release keys to select functions.

#### PROGRAMMING

Key mapping for line appearance can be performed on each station using the station class of service programming.

### MULTILINE CONFERENCING

This feature will allow one or more multiline stations to access two outside lines at the same time resulting in a conference arrangement. Conference transmission levels are not compensated.

#### FEATURE OPERATION

To set up a multiline conference,

- Establish first outside call and press **HOLD**.
- Establish second outside call.
- Press and hold down line key for second call.
- Press line key for first call.
- Release both line keys. (Conference is established.)

To drop out of established multiline conference,

- Dial **#**. (Line lights remain lit.)

To re-enter a multiline conference,

- Press either lighted line key.

To drop one conferee while your station is active in conference,

- Press **HOLD**. Both lines placed on hold.
- Press line key of party to be dropped.
- Press and release hookswitch.
- Press line key of party to be retained.
- Resume conversation.

#### PROGRAMMING

No special class of service programming is required.

### MUSIC INTERFACE (EXTERNAL SOURCE)

A jack is provided on the common equipment for the connection of a customer-provided KX registered music source. Also refer to the discussions titled, **BACKGROUND MUSIC** and **MUSIC-ON-HOLD**.

#### FEATURE OPERATION

No user intervention is required with this feature.

**PROGRAMMING**

No special class of service programming is required.

**MUSIC-ON-HOLD**

Music is provided to outside lines that are placed on hold if an external music source is connected to the system.

**FEATURE OPERATION**

No user intervention is required with this feature.

**PROGRAMMING**

No special class of service programming is required.

**MUTE**

Each station has a **MUTE** key which, when pressed, will mute the handset transmitter (or internal microphone on speakerphones) to prevent the user's voice from being heard by the distant party. The monitor light flashes to indicate a muted condition. The key provides push-on/push-off operation on speakerphones. Also refer to the discussion titled, **HANDSFREE ANSWER INHIBIT**.

**FEATURE OPERATION**

To prevent other party from hearing while handset is lifted,

- Press and latch **MUTE**. Monitor light will flash.

To resume two-way conversation,

- Release **MUTE**. Monitor light will turn off.

**PROGRAMMING**

No special class of service programming is required.

**NIGHT TRANSFER (OF RINGING)**

Night transfer is an operator (attendant) controlled feature that transfers the day ringing program of all incoming calls to a particular station or stations for off-hour or special purpose answering. The night transfer mode can only be activated from an attendant station.

**FEATURE OPERATION**

To activate (only from station 10),

- Press **ITCM**. Listen for tone.
- Press **#**. (Tone will stop and **ITCM** light will flutter.)

To cancel,

- Press **ITCM #**. (**ITCM** light will turn off.)

**PROGRAMMING**

The individual lines at each station which are to be transferred with this feature are selected by station class of service programming.

**NON-SQUARE SYSTEM/TENANT SERVICE**

A system can be programmed to be square or non-square as desired. In a square system, the line 1 keys of all telephone stations select line 1, the line 2 keys select line 2, etc. In a non-square system, each line select key at every station may be assigned individually to select any line.

**FEATURE OPERATION**

Press and release designated keys to select specific lines.

**PROGRAMMING**

Key mapping for line appearance can be performed on each station using the station class of service programming.

**OFF-HOOK DIALING**

Refer to the discussion titled, **END-TO-END SIGNALLING (OFF-HOOK DIALING)**.

**ON-HOOK DIALING**

Every multiline station provides manual and/or automatic dialing while the station handset is on-hook. An internal speaker monitors call progress for completion. The handset must be taken off-hook to provide the voice link on nonspeakerphone stations.

**FEATURE OPERATION**

To dial while on-hook,

- Press line key.
- Dial desired number.
- Pick up handset when called party answers.

**PROGRAMMING**

No special class of service programming is required.

**ORIGINATING DENIED**

The ability to originate calls on certain lines can be denied at individual stations through system programming. The originating denied feature is programmed on a per station/per line basis. Originating denied does not prevent a user from answering a ringing line, retrieving a held call or receiving a transferred call.

**FEATURE OPERATION**

A line appearing at a station can be answered when a call rings on it but cannot be used to dial a number.

**PROGRAMMING**

Call origination on a line is denied at a particular station by the station class of service programming.

## **PBX/CENTREX/CENTRAL OFFICE COMPATIBLE**

System features and programmable keys support the requirements of most PBXs, Central Offices, and CENTREX systems. Numbers, #'s, \*'s, programmable pauses, and flash signals can be made a part of every stored number for access to host system feature codes.

### **FEATURE OPERATION**

No special user intervention is required with this feature.

### **PROGRAMMING**

No special class of service programming is required.

## **PERSONAL MESSAGING**

Refer to the discussion titled, CALL MESSAGING.

## **PERSONALIZED RINGING TONE**

This programmable feature enables multiline stations to ring in a distinctive manner with one of four different tones. The ringing tones are combinations of four different frequencies and two different warble rates. Also refer to the discussion titled, PERSONAL RINGING TONES found in Section 5 of this publication.

### **FEATURE OPERATION**

To pick a ringing tone at a particular station,

- Press **ITCM**.
- Dial **66, 67, 68, or 69**, to select tone 1, 2, 3, or 4.

### **PROGRAMMING**

No special class of service programming is required.

## **POWER FAILURE TRANSFER**

Several power failure line connections are available for connecting industry-standard telephones such as a Comdial model 2500. These power-fail telephones are automatically connected directly to certain lines whenever there is an AC power failure. Normal origination and reception of calls on a power-fail station is possible during the power failure condition. The power-fail stations will automatically disconnect as soon as power is restored.

### **FEATURE OPERATION**

Basic industry-standard telephone service is available during a power failure with this feature.

### **PROGRAMMING**

No special class of service programming is required.

## **POWER ON VISUAL INDICATION**

The common equipment has a red LED which monitors the status of the system, and provides an "AC power-on" indication. Also refer to the discussion titled, EXTERNAL POWER SUPPLY.

### **FEATURE OPERATION**

No user intervention is required with this feature.

### **PROGRAMMING**

No special class of service programming is required.

## **PRIME LINE AUTOMATIC**

If a station is programmed for prime line automatic, the designated outside line, intercom line or line group will be automatically selected when the handset is taken off hook. Prime line pick up may be pre-empted by preselecting another line before lifting the handset. If the prime line is ringing, it is automatically answered by lifting the handset.

### **FEATURE OPERATION**

Lift handset. Prime line is automatically connected for use.

### **PROGRAMMING**

Assign a prime line to a station through station class of service programming.

## **PRIVATE LINES (ACCESS DENIED)**

Refer to the discussion titled, ACCESS DENIED.

## **PRIVACY RELEASE**

Through station COS programming, a line can be made non-private at a particular station while remaining private at all other stations. This arrangement allows other stations with that line appearance to join that particular station whenever it is on the privacy-released line. Also see the discussions titled, ADD-ON CONFERENCE and AUTOMATIC PRIVACY.

### **FEATURE OPERATION**

System feature which normally requires no user intervention.

### **PROGRAMMING**

A line is specified as private or non-private through the line class of service programming. Through station class of service programming, a line can be made non-private at a particular station.

## PROGRAMMABLE KEYS

Refer to the discussions titled, AUTO DIAL, PROGRAMMABLE DSS, and STATION SPEED DIAL.

### PROGRAMMABLE DSS/BLF (DIP SWITCH ON BUSY LIGHT FIELD)

A multiline station user can store true, one-key, direct station selection (DSS) at any memory key location to create a DSS memory key. When this key is pressed, any active outside call is automatically placed on hold and an intercom call is automatically made to that previously stored station number. The visual indicators of the stations programmed at the key locations form a busy lamp field (BLF). The BLF conveys station status to the user. An auto dial number can also be programmed as a secondary function at every DSS/BLF memory location. Also refer to the discussion titled, TONE OR VOICE SIGNALLING (INTERCOM).

#### FEATURE OPERATION

To program DSS,

- Press **ITCM**. Listen for tone.
- Dial **85**. Tone will stop.
- Press memory key.
- Dial extension number.
- Repeat last two steps for all desired telephones.
- Press **MONITOR**.

To voice call a DSS number,

- Lift handset.
- Press memory key.
- Voice announce.

To tone call a DSS number,

- Lift handset.
- Press memory key.
- Press **ITCM**. When telephone answers, two-way conversation can take place.

#### PROGRAMMING

No special class of service programming is required.

## PULL OUT DIRECTORY

Each multiline desk station is equipped with a pull out directory. This directory can be used for recording the system speed dial, station speed dial, or other frequently called numbers.

#### FEATURE OPERATION

Type or write speed dial or other frequently used numbers on the directory card and place it in the pull out tray.

#### PROGRAMMING

No special class of service programming is required.

## PULSE/TONE SWITCHABLE

The system can be programmed on a per line basis to allow the stations to switch from pulse to DTMF type dialing as needed. Alternately, the system can be programmed to only allow tone dialing.

#### FEATURE OPERATION

If telephone service is pulse (rotary dial) and the user must convert to tone while dialing,

- Press **#**. System will switch back to pulse dialing when call is finished.

#### PROGRAMMING

The line class of service programming sets the dialing mode required for a particular line.

## RINGING LINE PREFERENCE

The system can be programmed on a per station basis to provide ringing line preference on all lines programmed for ringing at the station.

When ringing line preference is enabled at a station, taking it off-hook automatically connects it to any outside line which is ringing at the station. A line key will not have to be pressed.

#### FEATURE OPERATION

To answer,

- Hear ringing.
- Lift handset. System automatically connects to ringing line.
- Answer call.

#### PROGRAMMING

The ability of a particular station to answer a ringing line with line selection is enabled by the station class of service programming.

## SAVED NUMBER REDIAL

This feature enables a key action to save the first eighteen digits of the last number manually dialed from the keypad. The saved number can be redialed at a later time. The saved number is permanently available for later use until it is replaced with a new number.

#### FEATURE OPERATION

To save a number just dialed,

- Press **SAVE** during call or before another call is made.

To dial a saved number,

- Press **HOLD SAVE**.

#### PROGRAMMING

No special class of service programming is required.

## SELF DIAGNOSTICS

Each station can execute a self test when so enabled. This test verifies processor, indicator, and tone functions.

### FEATURE OPERATION

Instructions for activating self diagnostics are provided in the system installation instructions.

### PROGRAMMING

No special class of service programming is required.

## SINGLE-DIGIT STATION DIALING

Refer to the discussion titled, SYSTEM SPEED DIAL.

## SINGLE-LINE KEYSET (OPTIONAL)

The system supports a proprietary single-line keyset. The single-line station provides basic intercom service coupled with the ability to access outside lines and system features through special access codes. The single-line station port can be programmed so that the single-line keyset acts as a full-featured business telephone for hybrid system installations or as a special-purpose room telephone for hotel management system installations.

### FEATURE OPERATION

Refer to the user guide associated with the optional equipment.

### PROGRAMMING

The single-line keyset ports are identified by system class of service programming.

## SPEAKERPHONE (OPTIONAL)

The optional speakerphone provides handsfree operation of all features, except voice signalled intercom calls. The handset must be lifted for this purpose.

### FEATURE OPERATION

Refer to the user guide associated with the optional equipment.

### PROGRAMMING

No special class of service programming is required.

## STATION BY STATION PRIVACY

Refer to the discussions titled, AUTOMATIC PRIVACY and PRIVACY RELEASE.

## STATION MESSAGE DETAIL RECORDING (SMDR)

The SMDR feature allows a record of calls to be kept for each station in the system. Call record data may be stored by any RS-232 compatible serial asynchronous data device (data printer, etc.). The SMDR records the

station number, line number, time of call, initiate time, call duration, and the digits dialed (up to thirty-two including up to eight #'s and \*'s for billing code information). These records are kept for all incoming and outgoing calls greater than twenty seconds in length. In addition, on incoming calls, the answer time (in tenths of a minute) for a ringing line is kept. The call record is presented at an RS-232 level as ASCII transmit data on terminals at the station connector block.

### FEATURE OPERATION

No user intervention is required with this feature.

### PROGRAMMING

No special class of service programming is required.

## STATION SPEED DIAL

Each station can be programmed to provide ten speed dial numbers at the keypad keys. Station speed dial numbers can be up to sixteen digits in length and can include line or intercom selection, numbers, #, \*, pauses, and flash signals. A pause is stored each time the HOLD key is pressed, and a flash signal is stored each time the RECALL key is pressed.

### FEATURE OPERATION

To program numbers at a multiline station,

- Press **ITCM**. Listen for tone.
- Press **SAVE**. Tone will stop.
- Press dial pad keys 1 - 0 as memory locations 1 - 10.
- Listen for fast tone bursts.
- Press dial pad keys 1 - 4 for line group selection 1 - 4.
- OR-
- Press specific line key for line.
- OR-
- Press **0** for none.
- Dial the number sequence to be stored. (Up to 16 digits can be stored.)

To store another number,

- Press **SAVE**.
- Press next memory key.
- Repeat above programming procedure.

To end programming,

- Press **MONITOR**.

To dial numbers at a multiline station,

- Press desired dial key 1 - 0.
- OR-
- If on line listening to dial tone,
  - Press **HOLD** and then press desired dial pad key 1 - 0.



To program numbers at a single-line station,

- Lift handset. Listen for dial tone.
- Dial #.
- Dial memory location (1-0) followed by 0.
- Dial number sequence to be stored (up to 16 digits).
  - Dial 1-0, #, and \*.
- Press **HOLD** to store a pause.
- Press **TAP**, if provided, to store a flash.
- Hang up.
- Repeat procedure for each speed dial number.

To dial number at a single-line station,

- Lift handset. Listen for dial tone.
- Dial trunk access code. Listen for dial tone.
- Press shift.
- Press desired dial key 1-0.
- Call will redialed automatically.

#### PROGRAMMING

No special class of service programming is required.

#### SUBDUED RINGING

Subdued ringing is automatic at any station that is busy on an outside line.

#### FEATURE OPERATION

No user intervention is required with this feature.

#### PROGRAMMING

No special class of service programming is required.

#### SYSTEM SPEED DIAL

Fifty, system-wide, speed dial numbers are provided. The system speed dial numbers can be up to thirty-two digits in length, and can include numbers, #'s, #'s, \*'s, pauses, and flash signals. System speed dial number programming can only be done at station 10 (and station 11 on some systems); however, once programmed, they can be used at every station in the system. Also refer to the discussion titled, AUTOMATIC PAUSE INSERTION.

#### FEATURE OPERATION

To program numbers,

- Press **ITCN**. Listen for tone.
- Press **\***. Tone will stop.
- Press **SAVE**.
- Press dial pad keys to identify location (10-59).
- Listen for fast tone burst.
- Press 1-4 for line group (if available), or press line key for line.
- -OR-
- Press **0** for none (System will pick prime line or last line used.)
- Dial the number to be stored (Up to thirty-two digits.)

- Press **SAVE** and repeat procedure from that point for each number to be stored.
- Press **MONITOR** key to end programming.

To dial numbers,

- Press **\***.
- Press desired dial pad keys 10 - 59 for memory locations 10 through 59.
- -OR-
- If on line listening to dial tone.
  - Press **HOLD \*** and then press desired dial pad keys 10 - 59.

#### PROGRAMMING

No special class of service programming is required.

#### TAP

Refer to the discussion titled, FLASH/RECALL.

#### TIMED HOLD RECALL

The system programming selects the recall time period for a call on hold. When a held call exceeds the programmed period, the system audibly signals the condition to the station that placed the call on hold. It also visually signals all other stations. The audible signal is repeated at the end of each time out period. The visual indication continues until the held call is picked up.

#### FEATURE OPERATION

To pick up a held call,

- Lift handset.
- Press lighted line key.

#### PROGRAMMING

The system class of service programming sets the timed hold recall time period.

#### TOLL RESTRICTION (0 AND 1)

See the discussion titled, FLEXIBLE TOLL RESTRICTION.

#### TONE OR VOICE SIGNALLING (INTERCOM)

Intercom calls can be tone signalled or voice signalled as desired. The tone signalled intercom call must be answered by lifting the handset. The voice signalled intercom call can be responded to in a handsfree manner. The class of service programming determines which signalling method is employed as the primary method when an intercom call is made. The alternate method is available through user action at the station. Intercom call progress is marked by special tone signals. Also refer to the discussion titled, INTERCOM CALL PROGRESS TONES.

**FEATURE OPERATION**

To voice signal (if voice signalling is first option signalling),

- Life handset.
- Press **ITCM**.
- Dial extension number.
- Voice announce.

To tone signal,

- Lift handset.
- Press **ITCM**.
- Dial extension number.
- Press **ITCM** again.
- Listen for intercom party to answer.

**PROGRAMMING**

The system class of service programming determines which type of intercom signalling is first option signalling for the system.

**TRUNK ACCESS RESTRICTION**

Refer to the discussion titled, **ACCESS DENIED**.

**UNANSWERED CALL TRANSFER  
RECALL TIMING**

An attendant transfers an incoming call by placing an intercom call to a desired station, and then pressing a particular key on the attendant station. A transferred call that is unanswered will return to the attendant station after a programmed length of time. The returned call will be accompanied by periodic tone bursts and a rapid flashing indicator.

**FEATURE OPERATION**

No user intervention is required with this feature.

**PROGRAMMING**

The system class of service programming determines the recall time for an unanswered call transfer.

**UNSCREENED CALL TRANSFER**

An active outside call can be transferred to another station without being announced. The station to which the call is being transferred rings automatically. The call will re-ring at the original station if not answered at the other station within a pre-programmed length of time.

**FEATURE OPERATION**

To perform an unscreened call transfer,

- Answer outside call.
- Press **ITCM**. (Outside call is placed on hold automatically.)
- Dial extension number.
- Press **RECALL**.
- Hang up handset. (Outside call begins ringing at called telephone.)

Call will ring back at original telephone if not answered within a preprogrammed time.

**PROGRAMMING**

The system class of service programming determines the recall time for an unanswered call transfer.

**UNSUPERVISED CONFERENCE**

After a conference between an internal party and two external parties has been established, this feature allows the internal party to drop out of the conference by dialing a special code. The conference between the two outside parties continues in an unsupervised condition. Also refer to the discussion titled, **MULTILINE CONFERENCING**.

**FEATURE OPERATION**

To drop out of an established conference,

- Dial # and hang up handset.

To re-enter conference,

- Lift handset and press either lighted line key.

**PROGRAMMING**

No special class of service programming is required.

**VOICE ANNOUNCE BLOCKING**

This feature allows the user of multiline stations to block voice announced intercom signalling by dialing a special code.

**FEATURE OPERATION**

To block voice signalled calls,

- Press **ITCM**.
- Dial 47.

To re-enable voice signalled calls,

- Press **ITCM**.
- Dial 48.

**PROGRAMMING**

The ability to block voice signalling at a particular station is enabled by station class of service programming.

**VOLUME CONTROL FOR VOICE  
AND RINGING**

See the discussion titled, **DUAL VOLUME CONTROLS**.

**WALL MOUNTING (STATION)**

The stations used with the system are desk/wall reversible.

**FEATURE OPERATION**

No user intervention is required with this feature.

**PROGRAMMING**

No special class of service programming is required.

## **ZONE PAGING (VIA STATION SPEAKERS)**

Zone paging allows groups of stations to receive announcements through the station speakers. The programming can enable zone paging in up to three different zones. A station can be programmed to only receive announcements or programmed to originate announcements as well. Each station can be programmed to be in any or all zones for both receiving and originating announcements. Also, refer to the discussion titled, ALL-CALL PAGING (VIA STATION SPEAKERS).

### **FEATURE OPERATION**

To page,

- Press **ITCM**.
- Lift handset.
- Dial zone number - (53, 52, or 51).
- Make announcement.
- Hang up handset or wait on line for an answer.

To answer page from any telephone,

- Lift handset.
- Press **ITCM**.
- Dial **44**.
- Meet paging party on line for private conversation.

### **PROGRAMMING**

The ability of each station to originate and/or receive a page and the arrangement of the paging into different zones are controlled by station class of service programming.



## SECTION 5 SYSTEM OPERATING CHARACTERISTICS

### FEATURE DIALING CODES NUMBERING PLAN

FEATURE		EXECUTECH MULTILINE TELEPHONES	3/8 LINE KEYSETS	SINGLE-LINE KEYSETS	
All Call Page		ITCM 50	ITCM 50	50	
Attendant Calling		ITCM 010 or 0	ITCM 010 or 0	0	
Automatic Redial		# #	# #	n/a	
Background Music	On	ITCM 45	ITCM 45	n/a	
	Off	ITCM 46	ITCM 46	n/a	
Automatic Call Back	Activate	88	88	88	
	Cancel	87	87	87	
Call Forward	Set	ITCM 54+Ext	ITCM 54+Ext	54+Ext	
	Cancel	ITCM 55	ITCM 55	55	
Call Messaging Light (See note 3)	Activate	86	86	86	
	Cancel	ITCM 43+Ext	ITCM 43+Ext	43+Ext	
Call Messaging Display to LCD Speakerphone	Message 1	ITCM 56 1	ITCM 56 1	56 1	
	Message 2	ITCM 56 2	ITCM 56 2	56 2	
	Messages 3-10 Cancel	ITCM 56 3-10 ITCM 56	ITCM 56 3-10 ITCM 56	56 3-10 56	
Call Park	Park Call	Orbit 1	ITCM 61	ITCM 61	HOLD(Flash)61
		Orbit 2	ITCM 62	ITCM 62	HOLD(Flash)62
		Orbit 3	ITCM 63	ITCM 63	HOLD(Flash)63
		Orbit 4	ITCM 64	ITCM 64	HOLD(Flash)64
	Pick Up Call	Orbit 1	ITCM 71	ITCM 71	71
		Orbit 2	ITCM 72	ITCM 72	72
		Orbit 3	ITCM 73	ITCM 73	73
		Orbit 4	ITCM 74	ITCM 74	74
Call Pickup		ITCM 49+Ext	ITCM 49+Ext	49+Ext	
Call Waiting Tone -with Camp On	Send	89	89	89	
	Cancel	Hang up	Hang up	Hang up	
Do Not Disturb	Set	MONITOR	MONITOR	n/a	
	Cancel	MONITOR	MONITOR	n/a	
Executive/Attendant Override (See note 1)		77	77	77	

Handsfree Answer Inhibit	Set	MUTE	MUTE	n/a
	Cancel	MUTE	MUTE	n/a
Line Group Access	Group 1	ITCM 9	ITCM 9	9
	Group 2	ITCM 82	ITCM 82	82
	Group 3	ITCM 83	ITCM 83	83
	Group 4	ITCM 84	ITCM 84	84
Meet Me Answer (Paging)		ITCM 44	ITCM 44	44
Message Waiting (See note 1) (See note 2)	Set	ITCM 42+Ext	ITCM 42+Ext	42+Ext
	Cancel From Idle	ITCM 43+Ext	ITCM 43+Ext	43+Ext
	Cancel On Line	HOLD	HOLD	HOLD
	Retrieve Message	ITCM HOLD	ITCM HOLD	HOLD
Night Transfer (See note 1)	On	ITCM #	n/a	n/a
	Off	ITCM #	n/a	n/a
Personal Ringing Tones	Set Tone 1	ITCM 66	n/a	n/a
	Set Tone 2	ITCM 67	n/a	n/a
	Set Tone 3	ITCM 68	n/a	n/a
	Set Tone 4	ITCM 69	n/a	n/a
Pulse/Tone Switching		#	#	#
Trunk Queuing	Direct Appearance	HOLD+line key	HOLD+line key	n/a
	Group Appearance	ITCM (Group code) 88	ITCM (Group code) 88	(Group code) 88
	Cancel	ITCM 87	ITCM 87	87
Saved Number Redial	Use	HOLD SAVE	HOLD SAVE	n/a
	Store	SAVE	SAVE	n/a
Speed Dial	Station	1-0	1-0	Trunk code+ SHIFT 1-0
	System	* 10-59	* 10-59	Trunk code+ SHIFT * 10-59
Redial (Last number dialed)		#	#	Trunk code+ SHIFT #
Voice Signalling Block	On	ITCM 47	ITCM 47	n/a
	Off	ITCM 48	ITCM 48	n/a
Zone Page	Zone 1	ITCM 51	ITCM 51	51
	Zone 2	ITCM 52	ITCM 52	52
	Zone 3	ITCM 53	ITCM 53	53

Note 1: Limited to designated station(s).

Note 2: 3/8 line keysets are not equipped with message waiting light adjacent to HOLD key; however, inter-com light winks to indicate message waiting.

Note 3: Call back message can only be left at Executech II multiline telephones that have the calling station programmed for DSS/BLF appearance.

**RINGER VOLUME CONTROL**



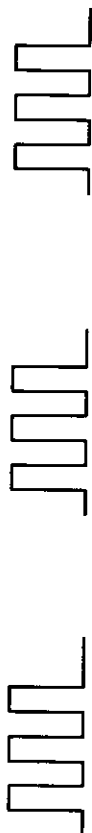



The location of the ringer volume control is as follows:

- Multiline station - rear of housing. Adjust the control lever to OFF, LOW, OR HIGH ringer volume as desired.
- Single-line station - bottom of housing. Adjust the control lever to LOW or HIGH ringer volume as desired.

**PERSONAL RINGING TONES (EXECUTECH MULTILINE TELEPHONES ONLY)**

<b>FREQUENCY PAIR</b>	<b>WARBLE RATE</b>
509/610 Hz	10 Hz
763/1016 Hz	10 Hz
509/610 Hz	19 Hz
763/1016 Hz	19 Hz

**SYSTEM RINGING PATTERNS**



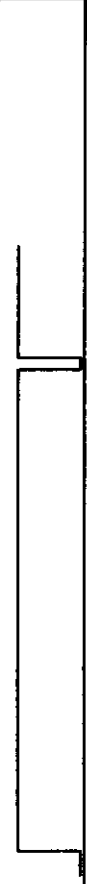
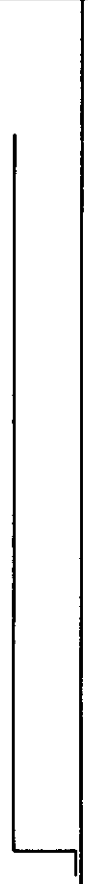
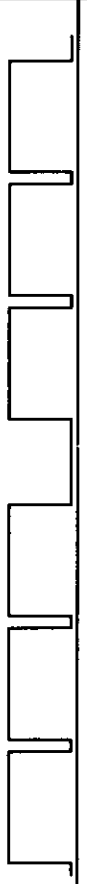
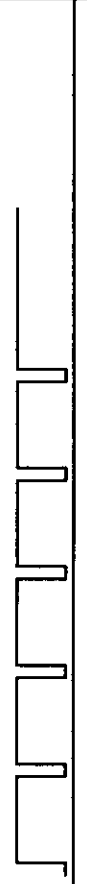



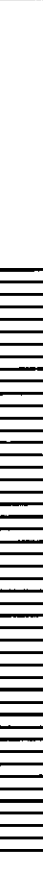
CO/PBX Line Ring	Host system ring pattern	Per host system
Intercom Tone Signalling	Two 140 msec. tone bursts sounded every four seconds	
Voice Signalling alert	One 210 msec. tone burst	
Timed hold recall at station that put call on hold	Three 140 msec. tone bursts sounded at the end of each timeout period	
Call back alert	One 70 msec tone burst followed by three 140 msec. tone bursts	
Call forward alert	One 70 msec. tone burst	
Wake-up call	Ten 70 msec. tone bursts repeated three times during an approximate three minute time period.	



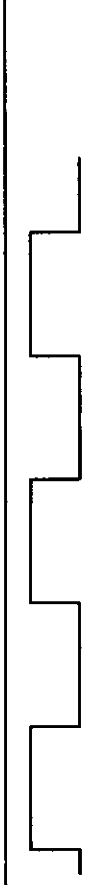
**INTERCOM CALL PROGRESS TONES**

Dial Tone	Continuous on
Called station ring-back	560 msec. tone burst sounded twice every 4 sec.
Base level program entry	
System speed dial entry confirmation	
Night transfer active confirmation	
Memory dial intercom, line, group and/or recall selection confirmed	70 msec. tone burst - sounded once
All-call page selection confirmed	
PA station port selection confirmed	
PA line port selection confirmed	
Error tone - incorrect entry	560 msec. tone burst - sounded three times
Busy tone	
Override feature not allowed	560 msec. tone bursts - sounded continuously
Night transfer feature not allowed	
Called station in do-not-disturb mode	140 msec. tone burst - sounded twice every sec.
Called station busy on outside line	630 msec. tone burst - sounded once
Call-back busy feature activated	
System is awaiting memory dial number or key mapping entry after location is specified	70 msec. tone bursts - sounded continuously
Override feature engaged warning tone	70 msec. tone bursts - sounded for 1.5 sec.

**LINE SELECT LIGHTS (EXECUTECH MULTILINE TELEPHONE)**

Idle	Steady off	
Ring	Continuous flash (560 msec. on - 560 msec. off)	
In use-your station	Steady on with wink off (2.3 sec. on - 70 msec. off)	
In use-other station	Steady on	
On hold-your station	Winking with repetitive off periods (winking rate - 560 msec. off)	
On hold-other station	Continuous winking (490 msec. on - 70 msec. off)	
Exclusive hold-your station	Steady on with wink off (2.3 sec. on - 70 msec. off)	
Exclusive hold -other station	Steady on	
Held call timeout -your station	Flutter with repetitive off periods (flutter rate - 560 msec. off)	
Held call timeout -other station	Continuous flutter (70 msec. on - 70 msec. off)	

**MESSAGE WAITING LIGHT (EXECUTECH MULTILINE TELEPHONE)**

Message Waiting	Continuous flash (560 msec. on - 560 msec. off)	
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**INTERCOM LIGHT (EXECUTECH MULTILINE TELEPHONE)**

In use-your station	Steady on with wink off (2.3 sec. on - 70 msec. off)	
All links busy Ringing	Steady on	
Auto redial active	Continuous flash (560 msec. on - 560 msec. off)	
Messaging display	Flutter with repetitive off periods (flutter rate - 560 msec. off)	
Night mode - Station 10	Flutter with repetitive off periods (flutter rate - 560 msec. off)	

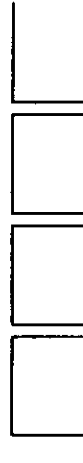


**BLF LIGHTS (EXECUTECH MULTILINE TELEPHONE)**

Call Messaging	Continuous flutter (70 msec. on - 70 msec. off)	
DSS station idle	Steady off	
DSS station busy on intercom line	Continuous flash (560 msec. on - 560 msec. off)	
DSS station busy on outside line	Steady on	
DSS station in do not disturb mode	Steady on	

**MONITOR LIGHT (EXECUTECH MULTILINE TELEPHONE)**

On line and speaker on (microphone also on if speakerphone)	Steady on	
Do not disturb mode		
Background music on		
Mute -OR- Handsfree Answer Inhibit	Continuous flutter (70 msec. on - 70 msec. off)	
Do not disturb plus Mute -OR- Active line plus Mute	Flutter with repetitive on periods (flutter rate - 560 msec. on)	

**MESSAGE WAITING LIGHT (SINGLE LINE KEYSET)**

On hold-your station	Continuous winking (490 msec. on - 70 msec. off)	
Held call timeout -your station		
Ringing	Continuous flash (560 msec. on - 560 msec. off)	
Message waiting	Continuous flutter (70 msec. on - 70 msec. off)	

## SECTION 6

# SYSTEM OPERATING PROCEDURES

## MULTILINE STATION OPERATION

### BASIC OPERATION

#### CALLING

- Press line key to select line.
- OR-
- If line groups are provided, press ITCM then dial access code for desired group.
  - 9 = group 1
  - 82 = group 2
  - 83 = group 3
  - 84 = group 4

*NOTE: Selecting a line is not necessary if:*

- *A priority line has been assigned to a telephone (prime line feature enabled),*
- *The telephone automatically picks an idle line for use when the handset is lifted (idle line preference feature enabled).*

*When a line group is dialed, the system may pick a line that is normally not assigned to a particular telephone. In this case, this system picked line will appear at a dynamic line key (if the dynamic line key feature is enabled).*

- Listen for dial tone.
- Dial number.

When party answers,

- Lift handset.

To end call,

- Hang up handset.

#### ANSWERING A CALL

Calls may appear at the dynamic line keys (if available) as well as at keys that have actual line assignments.

- Press line key of ringing line (line key with flashing light).

*NOTE: If the priority line assigned to a station (prime line enabled) is ringing, or if the telephone can answer any ringing line (ringing line preference enabled), do not press the line key of the ringing line.*

- Lift handset.

#### PLACING A CALL ON HOLD

**Manual hold** (Any telephone with line appearance can retrieve held call.)

- Press HOLD.

To return to call,

- Press line key with flashing light.

**Exclusive hold** (Only your telephone can retrieve held call.)

- Press HOLD twice.

#### Hold Recall Feature

After a preprogrammed length of time, a call placed on hold will automatically ring back to the telephone which placed it on hold. If the call is on exclusive hold, it will revert to manual hold after the hold recall time period. The call can then be retrieved by anyone with that line appearance.

#### PLACING INTERCOM CALLS

Intercom calls may be manually dialed as described below or automatically dialed as described in the paragraph provided later titled Direct Station Selection/Busy Lamp Field.

#### Voice Calling

- Lift handset.
- Press ITCM.
- Dial extension number. (To call system operator, dial 0.)
- Speak to called party.

#### Tone Calling

- Lift handset.
- Press ITCM.
- Dial extension number.
- Press ITCM again. Called telephone will ring.

*NOTE: Some systems may be programmed to tone signal as the first option. In that case, press the ITCM key again to voice call the party instead of making the called telephone ring.*

#### ANSWERING INTERCOM CALLS

To answer a voice call,

- Speak toward the telephone.
- Lift handset if privacy is desired.

*NOTE: Voice calling can be blocked. See the discussion titled, Voice Signal Blocking for details.*

To answer a tone call,

- Lift handset to talk.

### **DIRECT STATION SELECTION/BUSY LAMP FIELD - DSS/BLF (One-key Intercom calling with visual indication of telephone status)**

To program DSS,

- Press **ITCM**. Listen for tone.
- Dial **85**. Tone will stop.
- Press memory key.
- Dial extension number.
- Repeat last two steps for all desired telephones.
- Press **MONITOR**.

*NOTE: An autodial number can also be programmed as a secondary function at every DSS/BLF memory location. See Automatic Dialing instructions for details.*

To voice call a DSS number,

- Lift handset.
- Press memory key.
- Voice announce.

*NOTE: When transferring a call, the outside line is automatically placed on hold when a DSS key is pressed.*

To tone call a DSS number,

- Lift handset.
- Press memory key.
- Press **ITCM**. When telephone answers, two-way conversation can take place.

*NOTE: The lights (LEDs) adjacent to memory keys indicate status of DSS telephones:*

- *DARK indicates idle telephone*
- *STEADY-ON indicates telephone in use*
- *FLUTTER indicates telephone call back request.*

### **TRANSFERRING OUTSIDE CALLS**

#### **Unscreened transfer**

- Answer outside call.
- Press **ITCM**. (Outside call is placed on hold automatically.)
- Dial extension number.
- Press **RECALL**.
- Hang up handset. (Outside call begins ringing at called telephone. Call will ring back at original telephone if not answered within a preprogrammed time.)

*NOTE: If a telephone receiving a transfer has voice signal blocking active or if it is a Single Line Keyset, a ring back tone will sound. In this case, the caller attempting the transfer must wait for the called party to answer before completing the transfer.*

#### **Screened Transfer**

If the line on which the call appears is shared by the answering telephone and the telephone to receive the transfer,

- Answer outside call.
- Press **ITCM**. (Outside call is placed on hold automatically.)
- Dial extension number
- Announce call and line number.
- Hang up handset

If the called telephone does not share line appearance,

- Answer outside call.
- Press **ITCM**. (outside call is placed on hold automatically.)
- Dial extension number.
- Announce call, and ask telephone user to lift their handset.
- Press **RECALL**. (A three-way connection is established.)
- Hang up handset of transferring station.

To return to outside call (busy or no answer),

- Press flashing line key.

*NOTE: If the station to which a transfer is directed has dynamic line keys enabled, a transferred call on a line unshared by that station will appear at one of the dynamic line keys. The user can press that dynamic key to gain line appearance for the duration of the transferred call.*

### **CONFERENCE CALLS**

Conference transmission levels are not compensated and are dependent upon the quality of the external lines.

#### **Multiline conference (2 external parties, 1 internal party)**

To set up a multiline conference,

- Establish first outside call and press **HOLD**.
- Establish second outside call.
- Press and hold down line key for second call.
- Press line key for first call.
- Release both line keys. (Conference is established.)

To drop out of established multiline conference,

- Dial #. (Line lights remain lit.)

To re-enter a multiline conference,

- Press either lighted line key. Lift handset if private conversation is desired.

To drop one conferee and remain active in conference with other conferee,

- Press **HOLD**. Both lines placed on hold.
- Press line key of party to be dropped.

- Press and release hookswitch.
- Press line key of party to be retained.
- Resume conversation.

### **Add-on conference (1 external party, 2 Internal parties)**

This feature is available when two telephones share a common line appearance.

- Establish outside call.
- Press **ITCM** (outside call placed on hold automatically).
- Dial extension number.
- Ask intercom party to lift their handset, and to press and hold down line key on their telephone for held line.
- Press and hold down line key on your telephone for held outside call.
- Release line keys when conference is established.

## **FEATURES OPERATION**

### **REDIALING**

#### **Saved Number Redial**

The last number dialed can be saved for later redial.

To save a number just dialed,

- Press **SAVE** during call or before another call is made.

To dial a saved number,

- Press **HOLD SAVE**.

#### **Last Number Redial**

The last number previously dialed can be redialed.

- Press **#**. (If on line listening to dial tone, press **HOLD #**.)
- Listen for ringing or busy tone.
  - Ringing tone: When party answers, pick up handset.
  - Busy tone: Press **MONITOR** to disconnect.

The last number previously dialed can be redialed repeatedly.

- Press **# #**. (If on line listening to dial tone, press **HOLD # #**.)
- Number will be redialed once a minute for ten minutes.

To cancel automatic redial,

- Press **#**.

### **AUTOMATIC DIALING**

An autodial number can be programmed at any memory key that does not have a line assigned to it. An autodial

number can also be programmed as a secondary function at every DSS/BLF memory location.

To program autodial numbers,

- Press **ITCM**. Listen for tone.
- Press **SAVE**. Tone will stop.
- Press desired memory key. Listen for fast tone bursts.

**-OR-**

- If desired memory key is also programmed for one-key intercom dialing,
  - Press **HOLD** and then press desired memory key.
- Listen for fast tone bursts.
- Press dial pad keys **1 - 4** for line group selection **1 - 4**.

**-OR-**

- Press specific line key for line.

**-OR-**

- Press **0** for none.

*NOTE: When 0 is stored and automatic dialing is used, the system will automatically pick the prime line assigned to the telephone (if enabled) or pick the most previously used line at that station.*

- Dial the number sequence to be stored. (Up to 16 digits can be stored. Digits can be **1-0, #, and \***)

To store a pause,

- Press **HOLD**.

To store a flash,

- Press **RECALL**.

To store another number,

- Press **SAVE**
- Press next memory key.
- Repeat above programming procedure from memory key selection step.

To end programming,

- Press **MONITOR**.

*HINT: Store often-used, host PBX or CENTREX feature access dialing codes at memory locations for one-key access.*

To automatically dial numbers,

- Press desired memory key.

**-OR-**

- If desired memory key is also programmed for one-key intercom calling,
- Press **HOLD** and then press desired memory key.

When party answers,

- Lift handset.

**STATION SPEED DIALING**

To program numbers,

- Follow same steps given for Automatic Dialing using the keypad keys **1 - 0** as memory locations **1 - 10**.

To dial numbers

- Press desired dial key **1 - 0**.
- OR-
- If on line listening to dial tone,
  - Press **HOLD** and then press desired dial pad key **1 - 0**.

**SYSTEM SPEED DIALING**

To dial numbers,

- Press **\***.
- Press desired dial pad keys **10 - 59** for memory locations 10 through 59.
- OR-
- If on line listening to dial tone.
  - Press **HOLD \*** and then press desired dial pad keys **10 - 59**.

**AUTOMATIC HOLD**

This feature allows a user to move from line to line without having to press the hold key to place any current calls on hold.

- Press any line key. Active line will automatically go on hold.

**VOICE SIGNAL BLOCKING**

To block voice calls,

- Press **ITCM**.
- Dial **47**.

To un-block voice calls,

- Press **ITCM**.
- Dial **48**.

**LINE MONITORING**

To activate while on a call,

- Press **MONITOR**. Monitor light will turn on.
- Hang up handset.

*NOTE: If a distant party places a station user on hold, the station user can monitor in a handsfree manner until the party returns, and then lift the station handset to resume the call.*

To cancel,

- Lift handset to resume conversation
- OR-
- Press **MONITOR** to disconnect. Monitor light will turn off.

**RECALL/FLASH**

**Flash (PBX, CENTREX and custom calling services may require this feature.)**

If a system has been configured for flash,

- Press **RECALL** to generate a timed flash signal.

**Recall**

If a system has been configured for recall,

- Press **RECALL** to disconnect current call and receive a new dial tone for another call.

*NOTE: A system can be configured for either flash or recall but not for both.*

**AREA PAGING (requires external paging unit)**

- Press line key dedicated to paging.
- OR-
- Lift handset.
- Press **ITCM**.
- Dial paging access code.
- Dial code for zone paging if required (refer to paging equipment instructions).
- Make announcement.

**~~ALL CALL AND ZONE PAGING~~**

To page,

- Press **ITCM**.
- Lift handset.
- Dial zone number - (**53, 52, 51, or 50** for all-call).
- Make announcement.
- Hang up handset or wait on line for an answer.

To answer from any telephone,

- Lift handset.
- Press **ITCM**.
- Dial **44**.
- Meet paging party on line for private conversation.

**DO NOT DISTURB**

To silence a station ringer and appear busy to intercom calls,

- Press **MONITOR**. (monitor light will turn on).

*NOTE: The calling party will hear two quick tone bursts every three seconds. The feature cannot be overridden by the calling party.*

To cancel,

Press **MONITOR** again. (monitor light will extinguish)



**MUTE / HANDSFREE ANSWER INHIBIT**

To prevent distant party from hearing while handset is lifted,

**-OR-**

To inhibit handsfree answer of intercom calls,

- Press and latch **MUTE**. Monitor light will flash.

To resume two-way conversation,

- Press and release **MUTE**. Monitor light will turn off.

**PULSE/TONE SWITCHING**

If the local telephone service is pulse (rotary) but tone generation is required during the call, convert to tone while dialing as follows:

- Press # at point in dialing sequence where conversion to tone is required. (System will switch back to pulse dialing when call is ended.)

*NOTE: Pulse/Tone switching can be programmed into memory keys by pressing # during number storage.*

**MESSAGE WAITING**

The message waiting light, located above the **HOLD** key, is controlled by designated telephones or by a central message desk. The light will flash when a message for the station awaits pick up.

To receive messages,

- Press **ITCM**.
- Press **HOLD**. Ring down to message desk is automatic.

**BACKGROUND MUSIC**

Music must be supplied by the system before it can be turned on at a telephone.

To turn music on,

- Press **ITCM**.
- Dial **45** (monitor light will turn on).
- Adjust loudness of music with call monitor speaker volume control.

To turn music off,

- Press **ITCM**.
- Dial **46** (monitor light will turn off).

*NOTE: Background music automatically turns off during calls.*

**CALL PICKUP**

To answer an intercom call that is ringing at another telephone,

- Lift handset.
- Press **ITCM**.
- Dial **49**.

- Dial extension number of ringing telephone.

**CALL FORWARD**

To forward intercom calls to another telephone,

- Press **ITCM**.
- Dial **54**.
- Dial extension number of telephone to which calls are to be forwarded.

To cancel call forward,

- Press **ITCM**.
- Dial **55**.

*NOTE: For each call received during call forward, a ring reminder (short tone burst) will be heard at the called station to remind the user that calls are being forwarded.*

**AUTOMATIC CALL-BACK**

To arrange for the system to call back when a busy telephone becomes idle,

- Make intercom call. Hear busy signal.
- Dial **88**.
- Hang up. Calling telephone will ring when called telephone becomes idle.

To answer call-back ring,

- Lift handset. Called telephone will ring.

*NOTE: Call-back is cancelled if handset is not lifted.*

To cancel automatic call back before it rings,

- Press **ITCM**.
- Dial **87**.
- Hang up.

**CALL MESSAGING LIGHT**

(Calling telephone must be programmed for DSS/BLF at called telephone)

To leave a call-back message signal,

- Make intercom call. Hear ring back tone.
- Dial **86** (BLF light at called telephone will flutter).
- Hang up handset.

To cancel a call-back message signal,

- Press **ITCM**.
- Dial **43**.
- Dial extension number of telephone to which the call message was sent.

**CALL MESSAGING DISPLAY**

A message can be set at any multiline telephone for display by an Executech LCD Speakerphone when that LCD Speakerphone makes an intercom call to the telephone where the message is set.

Two standard messages are provided, but up to ten special purpose messages can be made available for use. Instructions for constructing the custom messages are given in the paragraph headed, ATTENDANT OPERATION.

- Standard Message 1 - shows when telephone user will return.
- Standard Message 2 - shows number where telephone user can be reached. (Used with Call Forward feature.)

To turn on message,

- Press **ITCM**.
- Dial **56**.
- Dial 1 or 2 (or the code for special purpose message, if provided). Intercom light will flash while feature is active.
- If message 1 is selected, dial time in twelve-hour format.
  - Dial \* to display dash (\*12 = -12).
  - Dial # to display colon (\*12#30 = -12:30).
- Press **MONITOR**.

To turn off message,

- Press **ITCM**.
- Dial **56**.
- Press **MONITOR**. Intercom light will turn off.

### LINE QUEUING

A telephone can wait in line (queue) for the availability of a line or line group

To queue for busy outside line,

- Press **HOLD**.
- Press line key. Hear tone burst.

To queue for line group,

- Lift handset.
- Press **ITCM**. Listen for intercom dial tone.
- Dial trunk group access code (**9, 82, 83, or 84**). Hear busy tone.
- Dial **88**.
- Hang up handset.

To answer line queuing ring-back,

- Lift handset, hear dial tone on line, and place call.

To cancel queuing,

- Press **ITCM**.
- Dial **87**.

### EXECUTIVE OVERRIDE

To break into conversation at another telephone,

- Make intercom call. Hear busy tone.
- Dial **77**. (Warning tone sounded at called telephones.)

- Join in-progress call. A three-way conference now exists. Any one of the parties can leave the conference without dropping the connection to the other two.

### CALL PARK

A call can be placed in system storage for retrieval at any telephone in the system.

To park a call,

- Press **ITCM** (call is placed on exclusive hold automatically).
- Dial orbit access number (**61, 62, 63, or 64**). If chosen orbit is busy, dial alternate orbit number.
- Hang up handset.
- Use intercom to announce call and orbit number.

To retrieve a parked call,

- Hear announcement.
- Pick up handset.
- Press **ITCM**.
- Dial orbit retrieval number (**71, 72, 73, or 74**).
- Answer call.

*NOTE: If call is not retrieved within two minutes, it rings back to the parking telephone as a standard held call.*

### PERSONAL RINGING TONES (allows selection of one of four distinctive tones for ring signals)

To program tones,

- Press **ITCM**.
- Dial **66, 67, 68, or 69** (selects tones 1, 2, 3, or 4).

### CALL WAITING (with camp-on)

To send call waiting tone and wait on line for an answer (camp-on),

- Place intercom call
- Hear busy tone
- Dial **89** (called party hears tone)
- When called telephone becomes idle, the waiting call will ring.

To answer call waiting tone,

- Hear tone (short tone burst sounds in handset receiver).
- Complete present call and hang up (camped-on call will begin ringing).
- Lift handset.

To cancel call waiting tone,  
Hang up handset.

**SPEAKERPHONE OPERATION**

The optional speakerphone can exercise the previously described features in a handsfree manner. Handsfree calling and call answering is as described below.

To place a call,

- Press line key.
- Dial number or press memory key.
- When party answers, speak toward the telephone.

To answer a call,

- Press a line key.
- Speak toward the telephone.

To end a call,

- Press **MONITOR**.

To switch from speakerphone to handset,

- Lift handset.

To switch from handset to speakerphone,

- Press **MONITOR**.
- Hang up handset.

**ATTENDANT STATION OPERATION**

The Attendant Station provides certain system operating features that are not available for use from other system stations.

**SETTING THE SYSTEM CLOCK**

To set the clock/calendar,

- Press **ITCM**.
  - Dial \* # .
  - Dial clock date (xx xx xx xx xx).
- (YEAR-MONTH-DAY-HOUR-MINUTE)

Clock date will be printed if data printer is present.

*Note: Values less than 10 must be dialed as 0x. Hours must be expressed in 24-hour format.*

To set the clock,

- Press **ITCM** \* # .
- Dial new hour digits.
- Dial new minutes digits.
- Press #

*Note: New clock date will be printed if data printer is present.*

To obtain a printing of the current clock date,

- Press **ITCM** \* # #

**AUTO WAKE-UP**

The system can be arranged to automatically dial a telephone at a predetermined time, and deliver a distinctive ring pattern as an alerting signal.

To activate,

- Press **ITCM**.
- Dial \* 1.

- Dial station number.
- Dial wake-up time. (four digits 0000-2359).

To cancel,

- Press **ITCM** \* 1.
- Dial station number.
- Dial **9999**.

To obtain verification printout,

- Press **ITCM** \* 2.
- Dial station number.

*Note: Station number and wakeup time will be printed if data printer is provided with system.*

**OUTGOING CALL CONTROL**

To disable trunk access to a Single-Line Keyset,

- Press **ITCM**.
- Dial \* 3.
- Dial station number.

To re-enable trunk access,

- Press **ITCM**.
- Dial \* 4.
- Dial station number.

**MESSAGE WAITING CONTROL**

The message waiting light at a telephone can be turned on to alert the telephone user that a message awaits pick up.

To turn on MW light,

- Press **ITCM**.
- Dial **42**.
- Dial station number. (The MW light of called station will flash.)

To turn off MW light,

- Press **ITCM**.
- Dial **43**.
- Dial station number. (The MW light of called station will turn off.)

To turn off MW light while delivering message,

- Press **HOLD**.

**SYSTEM SPEED DIAL PROGRAMMING**

To program numbers,

- Press **ITCM**. Listen for tone.
- Press \*. Tone will stop.
- Press **SAVE**.
- Press desired keys to identify location (10 - 59).
- Listen for fast tone burst.
- Press **1-4** for line group (if available), or press line key for line.

**-OR-**

- Press **0** for none.

*NOTE: When 0 is stored and system speed dialing is used, the system will automatically pick the prime line assigned to the telephone (if enabled) or pick the most previously used line at that station.*

- Dial the number to be stored. (Up to thirty-two digits.)
  - Press **HOLD** to store pause (if required).
  - Press **RECALL** to store flash (if required).
- Press **SAVE** and repeat procedure from that point for each number to be stored.
- Press **MONITOR** key to end programming.

**NIGHT TRANSFER (of ringing)**

To activate,

- Press **ITCM**. Listen for tone.
- Press **#**. (Tone will stop and ITCM light will flutter.)

To cancel,

- Press **ITCM #**. (ITCM light will extinguish.)

**PROGRAMMING THE CALL MESSAGING DISPLAYS**

A message can be set at any multiline telephone for display by an Executech LCD Speakerphone when that

LCD Speakerphone makes an intercom call to the telephone where the message is set. The system provides two standard messages for use but up to ten custom messages can be created and programmed from the attendant station.

To program messages,

- Press **ITCM** key.
  - Dial **57**.
  - Dial the message location (1 - 0).
  - Enter two-digit character code from Table 1 and press **#**. Repeat as required to completely form message (16 characters maximum). For example, dialing 23#63#61#31#43#21#53 programs the word COMDIAL as a call messaging display for system use.
  - Press **SAVE** then dial next message location and message code.
- OR-**
- Press **MONITOR** to end programming.

**Table 1. Custom Messages**

Custom call messaging displays of up to sixteen characters per message can be formed by dialing codes from this chart for allowed characters.

CHARACTER	CODE	CHARACTER	CODE	CHARACTER	CODE
A	21	a	24	SPACE	12
B	22	b	25	;	17
C	23	c	26	/	18
D	31	d	34	"	19
E	32	e	35	.	27
F	33	f	36	'	28
G	41	g	44	:	29
H	42	h	45	1	01
I	43	i	46	2	02
J	51	j	54	3	03
K	52	k	55	4	04
L	53	l	56	5	05
M	61	m	64	6	06
N	62	n	65	7	07
O	63	o	66	8	08
P	71	p	74	9	09
Q	11	q	14	0	00
R	72	r	75		
S	73	s	76	Back At	10
T	81	t	84	Call	20
U	82	u	85		
V	83	v	86		
W	91	w	94		
X	92	x	95		
Y	93	y	96		
Z	13	z	16		

\*(plus any other unused codes)

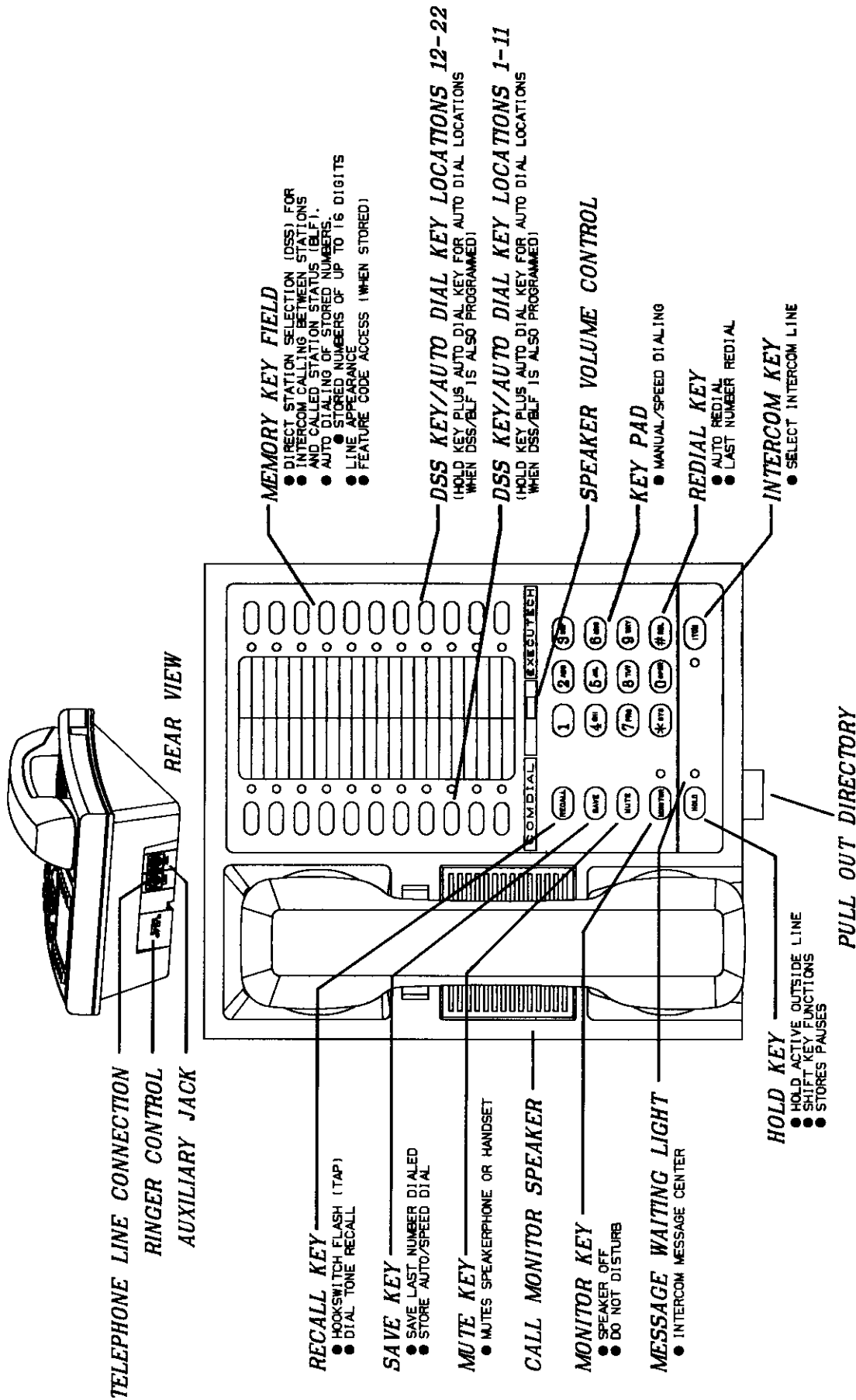


Figure 6-1. ExecuTech Multiline Telephone Controls and Indicators (2x22 Image)

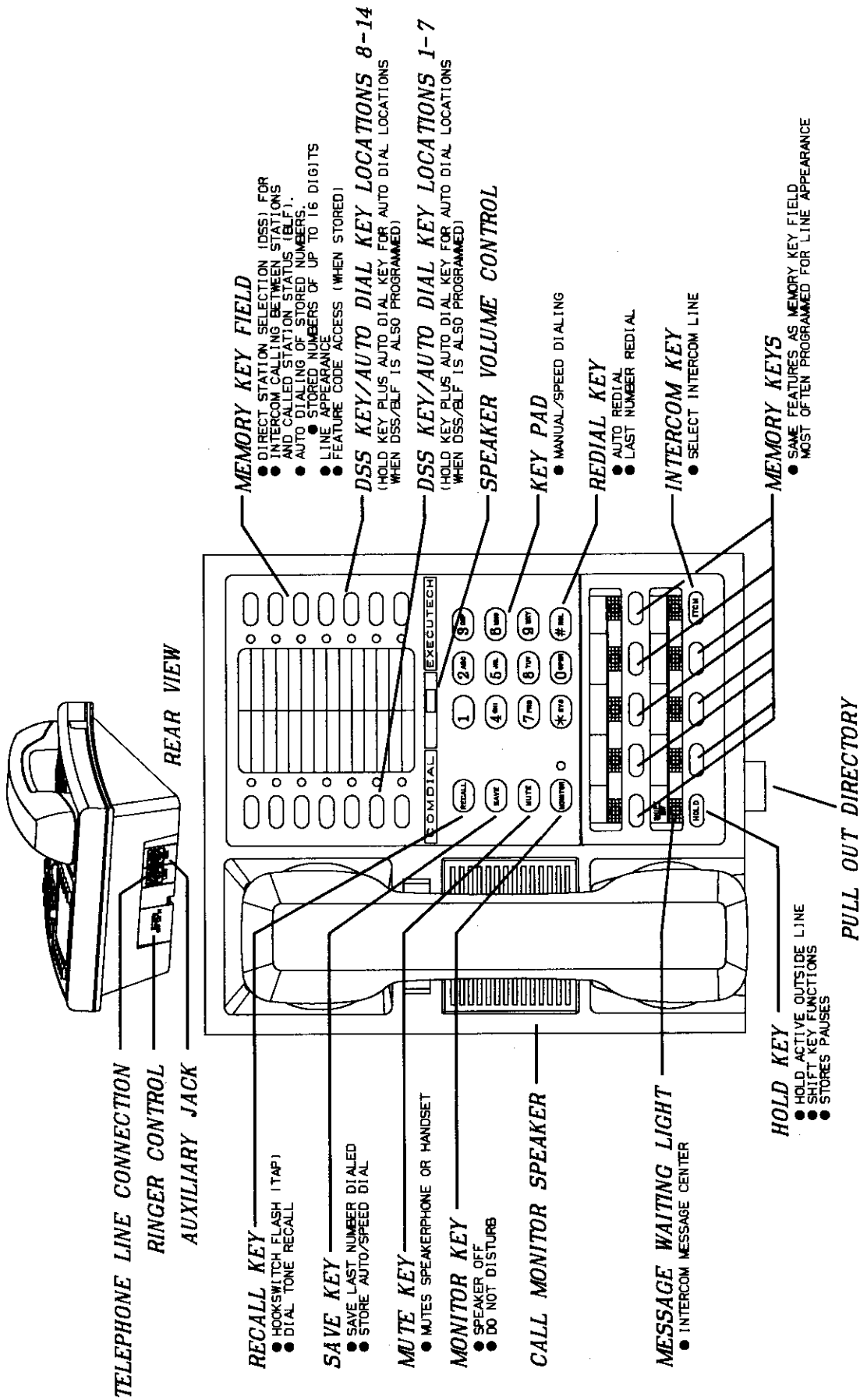


Figure 6-2. ExecuTech Multiline Telephone Controls and Indicators (10x14 Image)

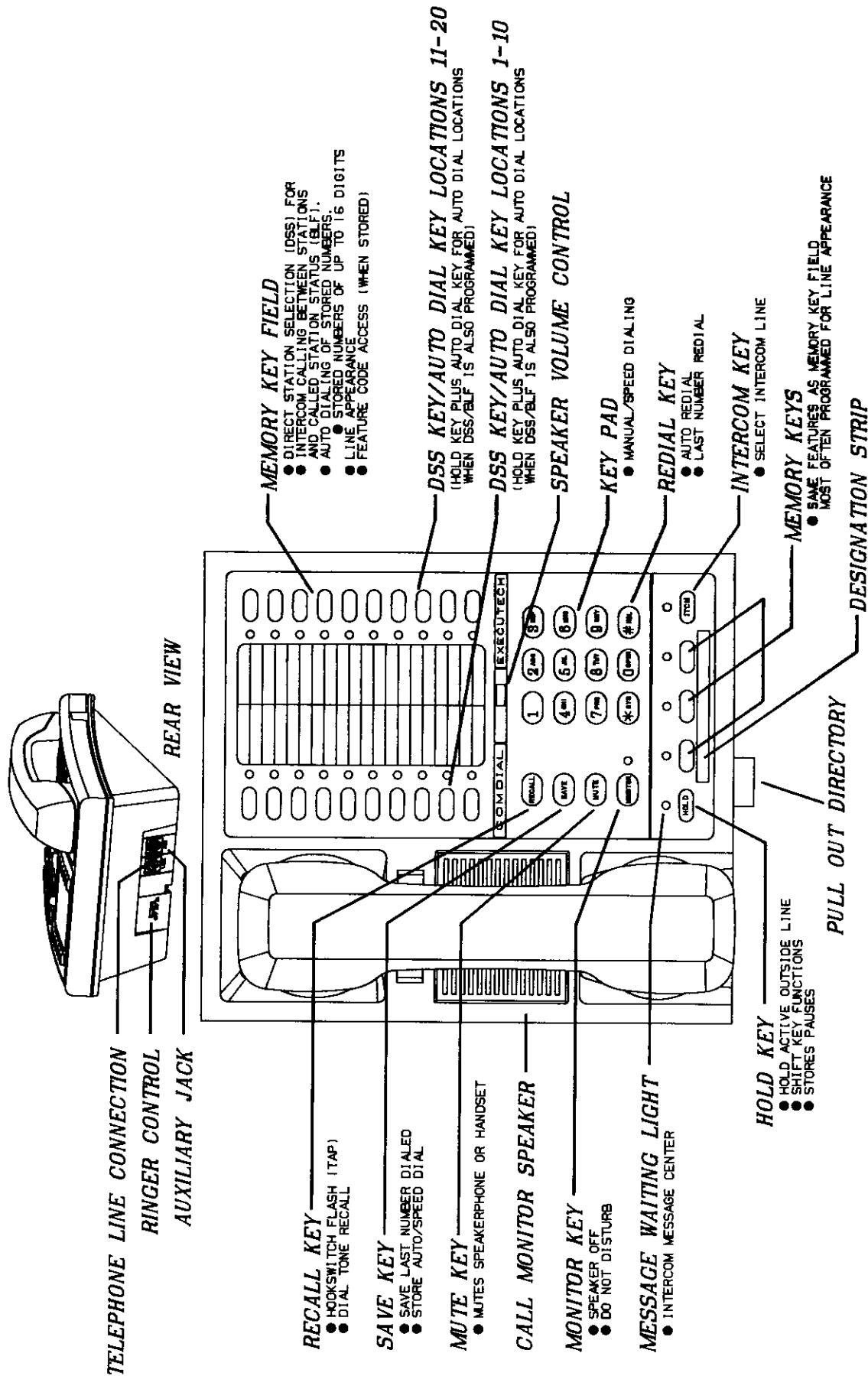


Figure 6-3. ExecuTech Multiline Telephone Controls and Indicators (5x20 Image)

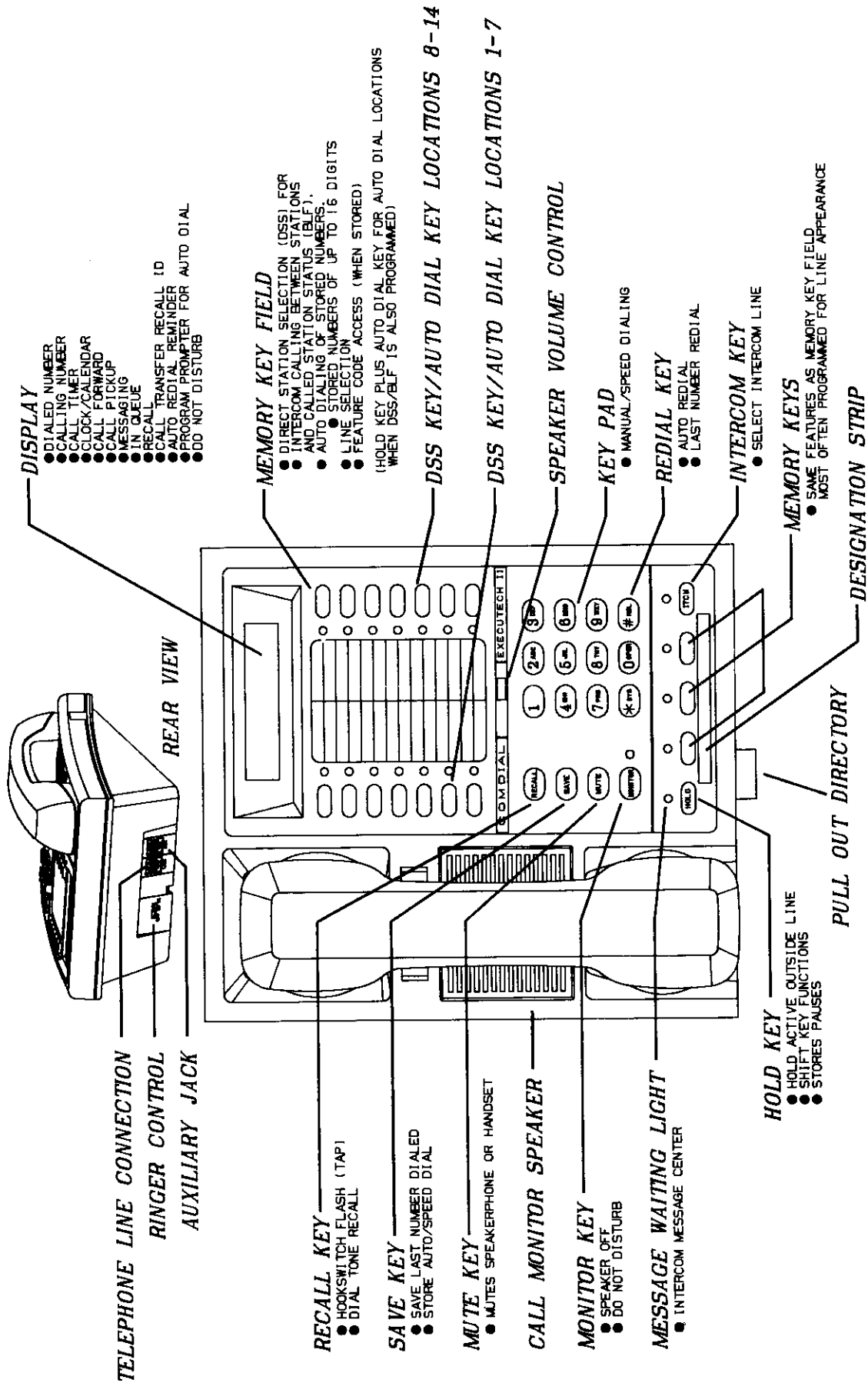


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The information contained herein does not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired, or should particular problems arise which are not covered sufficiently for the purchaser's purposes, contact Comdial, Customer Service Department, Charlottesville, Virginia 22906.

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# **COMDIAL**

**ExecuTech**

**Model 1432B**

**Hybrid/Key Telephone System  
Installation And  
Programming Manual**

This publication is applicable to the following  
common equipment:  
- Model 1432B Rev F and later

IMI 66-074.02  
4/90

GO

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# CHAPTER 1 INTRODUCTION

## MANUAL SCOPE

This publication contains installation, programming, and maintenance information for the Model 1432 KSU electronic key system and associated electronic key telephone stations.

**NOTE:** *This manual is applicable for model 1432B KSU Rev F and later.*

This key system is fully protected, and therefore the installation does not require the services of an authorized agent. However, the installation procedures detailed in this manual should only be performed by individuals familiar with general telephone installation procedures.

The end user may perform routine maintenance procedures, such as the following listed ones, but all other servicing must be performed by factory authorized personnel.

- Place or replace any designation strips on the face of the telephone stations.
- Replace the line cord or handset coiled cord.
- Replace complete stations and station handsets. The handset is a special Comdial type. Other handset types will not work properly.
- Relocate the station when it is plugged into the proper system jacks.

## RELATED INFORMATION

- IMI 01-001, Compliance Requirements To FCC Rules and Regulations Part 68 and 15
- IMI 01-005 Handling Of Electrostatically Sensitive Components
- GCA 40-028, General Information, Electronic Key System
- GCA 70-134, User's Guide for Multiline Station
- GCA 70-079, User's Guide for Single Line Station
- GCA 70-066, User's Guide for DSS/BLF Console
- GCA 70-148, User's Guide for 32-Button DSS/BLF Console

## STATION TYPES

This Key Service Unit supports the operation of the following stations:

- 22 Line/Feature Keypad
- Reused 3/8 Line Keypad
- Single-Line Keypad
- DSS/BLF Console 32-Key, 40-Key, and 70-Key

## **INSTALLER/USER INFORMATION REGARDING FCC RULES AND REGULATIONS**

This electronic key system complies with Federal Communications Commission (FCC) Rules, Part 68. The FCC registration label on the KSU contains the FCC registration number, the ringer equivalence number, the model number, and the serial number or production date of the system.

### **NOTIFICATION TO TELEPHONE COMPANY**

Unless a telephone operating company provides and installs the system, the telephone operating company which provides the lines must be notified before a connection is made to them. The lines (telephone numbers) involved, the FCC registration number, and the ringer equivalence number must be provided to the telephone company. The FCC registration number and the ringer equivalence number of this equipment are provided on the label attached to the KSU. The user/installer is required to notify the telephone company when final disconnection of this equipment from the telephone company line occurs.

### **COMPATIBILITY WITH TELEPHONE NETWORK**

When necessary, the telephone operating company provides information on the maximum number of telephones or ringers that can be connected to one line, as well as any other applicable technical information. The telephone operating company can temporarily discontinue service and make changes which could effect the operation of this equipment. They must, however, provide adequate notice, in writing, of any future equipment changes that would make the system incompatible.

### **INSTALLATION REQUIREMENTS**

Connection of the electronic key system to the telephone lines must be through a universal service order code (USOC) outlet jack supplied by the telephone operating company. If the installation site does not have the proper outlet, ask the telephone company business office to install one. The correct outlet jack for this system is either a type RJ21X or type RJ14C.

### **PARTY LINES AND COIN LINES**

Local telephone company regulations may not permit connections to party lines and coin lines by anyone except the telephone operating company.

### **TROUBLESHOOTING**

If a service problem occurs, first try to determine if the trouble is in the on-site system or in the telephone company

equipment. Disconnect all equipment not owned by the telephone company.

If this corrects the problem, the faulty equipment must not be reconnected to the telephone line until the problem has been corrected. Any trouble that causes improper operation of the telephone network may require the telephone company to discontinue service to the trouble site after they notify the user of the reason.

### **REPAIR AUTHORIZATION**

FCC regulations do not permit repair of customer owned equipment by anyone except the manufacturer, their authorized agent, or others who might be authorized by the FCC. However, routine repairs can be made according to the maintenance instructions in this publication, provided that all FCC restrictions are obeyed.

### **RADIO FREQUENCY INTERFERENCE**

The electronic key system contains incidental radio frequency generating circuitry and, if not installed and used properly, may cause interference to radio and television reception. This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules. These limits are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference to radio and television reception; in which case the user is encouraged to take whatever measures may be required to correct the interference. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient the television or radio's receiving antenna, and/or relocate the KSU, the individual telephone stations, and the radio or TV with respect to each other. If necessary, the user should consult the manufacturer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the Government Printing Office, Washington D.C. 20402. Stock No. 004-000-00345-4.

### **RINGER EQUIVALENCE NUMBER**

The REN of each line is 0.4B. The FCC requires the installer to determine the total REN for each line, and record it at the equipment.

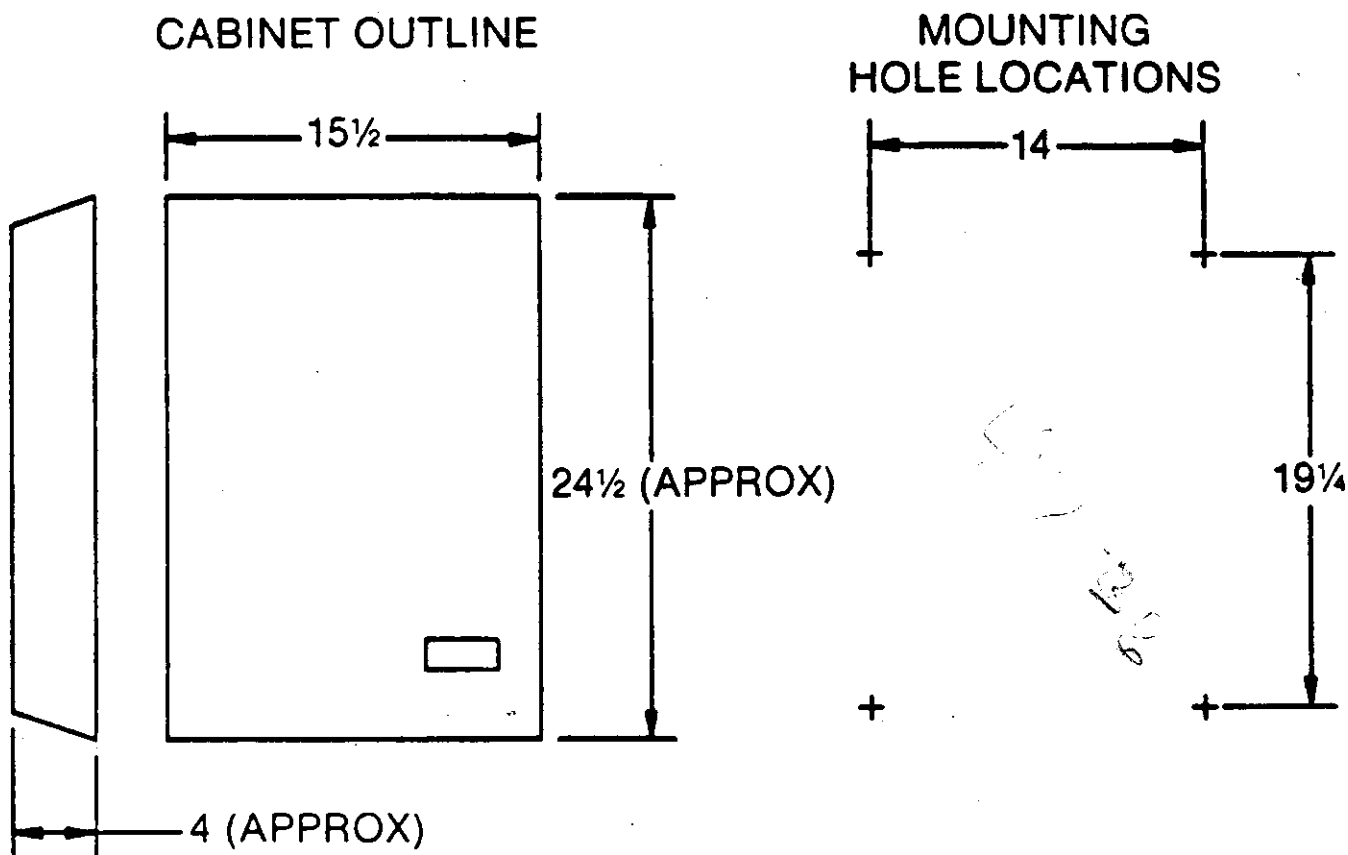
## CHAPTER 2 INSTALLATION

### MOUNTING CONSIDERATIONS

- The KSU cabinet should be attached vertically to any sturdy, flat, surface. It may be vertically rack mounted if desired.
- The KSU must be located within six (6) feet of a proper electrical outlet. The KSU power supply requires a dedicated 117VAC 15 AMP circuit, with a third-wire ground, supplied to a standard (NEMA 5-15R) electrical outlet.
- The distance between the KSU and the TELCO/PBX jacks must be 25 feet or less as per FCC requirements. A nominal distance of 7 feet is recommended.
- The mounting location must be secure and dry and have adequate ventilation. The temperature range of the location must be within 32-122 degrees F (0-50 degrees C).
- If the mounting surface is damp or if it is concrete or masonry material, a backboard must be attached to the mounting surface to be used for KSU mounting. Suitable mounting backboards are available commercially or can be constructed out of 1/2-inch plywood cut to size.
- Tools and hardware required for mounting the KSU cabinet include:
  - Fasteners - wood screws (1/4 x 1-inch round head), toggle bolts, or wall anchors
  - Screwdriver - to match fasteners
  - Electric drill - if prepared holes are required
  - Connecting tool - for fastening wires to a type-66 connector block
  - Crimping tool - for 623-type modular plugs

### MOUNTING PROCEDURE

1. Unpack, and carefully inspect the KSU and stations for shipping damage. Notify the shipper immediately of any damages found. Verify that the packages contain all parts and accessories needed for proper installation and operation.
2. If a backboard is required at the mounting location, attach it securely to provide a stable KSU mounting surface.
3. A full scale mounting template is supplied in the KSU packing box. Hold or tape this template to the mounting surface, and mark the location of the mounting holes on the mounting surface as they are located on the template. The KSU mounting dimensions are also shown on Figure 2-1.
4. Drill holes in the mounting surface of a proper size to accommodate the hardware being used. If necessary, prepare these holes with inserts, anchors or other attachment devices as dictated by the type of mounting surface.
5. Attach the KSU to the mounting surface with four (4) screws installed through the KSU mounting flange and into the mounting surface holes. Note that the flange holes are elongated with an enlargement at one end of the hole. This feature allows the mounting screws to be partially installed in the mounting surface before the KSU is hung on them.
6. Place the individual telephone stations as desired and in keeping with accepted industry and office standards. A telephone station can be wall mounted if necessary as they are desk/wall reversable. Refer to Chapter 4, Maintenance, for instructions in preparing a desk/wall reversable station for wall mounting.



(ALL DIMENSIONS IN INCHES)

Figure 2-1. KSU Mounting Dimensions

### SYSTEM WIRING

System cabling may be routed concealed or visible as the installation location requires. Good engineering practices must be observed and all applicable building codes must be adhered to. Tables 2-1 through 2-5 and Figures 2-2 through 2-5 illustrate the system wiring and connection points.

### AC POWER CONNECTION

Employ a dedicated 117VAC 15 AMP circuit, with a third-wire ground, supplied to a standard electrical outlet (NEMA 5-15R) for the AC power connection. AC power connection is illustrated in Figure 3-2 shown below.

- A plug-in power line surge protector should be installed between the power cord and the AC outlet.
- Do not connect the AC power cord until the installation has been checked.
- To apply AC power, connect the power cord to the electrical outlet.

### LINE CONNECTIONS

The KSU interface connection for the TELCO or PBX lines is a 50-pin, male connector. A 25-pair cable, properly terminated, must be connected from the KSU connector to the demarcation point connector (typically a 66M-xx connector).

### CABLE CLIPS

The cabinet-mounted 50-pin male connector is equipped with a retaining clip. This clip is designed to secure the mated connection once it is made. The clip does this by snapping into a slot on the cable-mounted connector when it is pressed together with the cabinet-mounted connector. This retaining clip must be pulled back slightly to unsnap it before the connectors can be separated.

### CAUTION

Transient voltage spikes, if induced onto CO or CENTREX lines, can travel through the cable and into the common equipment. The telephone company offers basic protection against this condition but it is usually designed to protect the central office circuits. While it will also provide



some protection to the common equipment, it should not be relied upon for total protection. To help ensure that external overvoltage surges do not damage the system, it is recommended that gas discharge tubes, or similar primary protection devices, be installed, and properly grounded, in all connected TELCO lines.

### STATION CONNECTIONS

Connections between the KSU and the stations are typically via type 66M-xx connector blocks which are cable connected to the KSU 50-pin male connector. The maximum distance allowed from the KSU to the station is 1500 feet using #24 gauge, twisted-pair cable.

If spare conductors exist in the cables that are run between the KSU 66M-xx connector block and the station jacks, it is a good practice to connect them to earth ground. Doing this may help prevent them from inducing radio frequency and/or AC interference into the system.

#### **CAUTION**

The polarity between the individual wires in a particular voice or data pair is not critical; however, do not connect the voice circuits to the data circuits.

**NOTE:** Station ports are programmed for the type of equipment that is to be connected to them. Either an LCD Speakerphone must be connected to station port 10 or a 22 Line/Feature Keyset must be connected to station port 11 for Class Of Service programming performance.

### REUSING THE 8 LINE BLF KEYSSET

When the reused 8 Line BLF Keyset is installed at station port 11, 12, or 13, the associated adjunct port (11, 12, or 13) must be programmed for BLF 8 Line Keyset operation; however, it cannot be connected to ANY equipment.

- When the reused 8 Line BLF Keyset is installed at any other station port, the following considerations must be made:
- The data-paired port cannot be connected to any equipment.
- The overload paired port cannot be used for an 8 Line BLF Keyset but can be used for regular multiline or single-line station installation.

- The station port must be programmed for 8 Line BLF Keyset operation. Refer to Chapter 3 for details.

### STATION PAIRING

Station ports are paired for both data and overload protection as shown below:

DATA PAIRING		OVERLOAD PAIRING	
10 - ADJ 10	24 - 25	10 - 11	27 - 29
11 - ADJ 11	26 - 27	12 - 13	30 - 32
12 - ADJ 12	28 - 29	14 - 16	31 - 33
13 - ADJ 13	30 - 31	15 - 17	34 - 36
14 - 15	32 - 33	18 - 20	35 - 37
16 - 17	34 - 35	19 - 21	38 - 40
18 - 19	36 - 37	22 - 24	39 - 41
20 - 21	38 - 39	23 - 25	
22 - 23	40 - 41	26 - 28	

### DSS/BLF CONSOLE CONNECTIONS

The system provides four designated adjunct (console) ports. The adjunct ports are associated with companion station ports as follows:

ADJUNCT PORT	STATION PORT
10	10
11	11
12	12
13	13

A DSS/BLF console may also be installed at any station port that is data paired with a port containing a companion telephone station. The station port that is used by the console must be configured for console operation by COS programming.

When installing a DSS/BLF console at a station port, connect all four wires (voice pair and data pair) of the console cable to the station connector block. The voice pair connections of the station port to which the console is connected can also be connected as a PA port.

Refer to the paragraph in this chapter headed *Area Paging Interface - Station PA Port* and to the illustration shown in **Figure 2-3**. Wire the input of the PA system to the DSS/BLF console voice-pair at the station connector block. The station port must then be programmed as a PA port.

#### **Off-Hook Voice Announce With Handsfree Answerback**

The DB32S-xx Adjunct Feature Module can be used to provide off-hook voice announcing (OHVA) to a station that is already busy on a call, and allow subsequent handsfree answerback (HFAB) by the station user. Two data-paired station ports are required to provide this feature.

- Connect a keyset to the first data-paired port.
- Connect the DB32S Adjunct Feature Module to the voice pair and data pair of the second data-paired port.
- For the feature to be enabled, the port to which the Adjunct Feature Module is connected must be programmed as a DSS console with call announce.

### SECURE OFF-HOOK VOICE ANNOUNCE TELEPHONE CONNECTIONS

This telephone system supports the Secure Off-Hook Voice Announce (SOHVA) feature provided by certain keyset models. Two data-paired station ports are required to provide the SOHVA feature.

**NOTE:** *If non-secure off-hook voice announce capability is required, it can be provided by the model DB32S-xx console as described above.*

The SOHVA equipped telephones contain a 6-position, 3-pair line jack. Using 6-wire, twisted-pair cable, connect the two inside pairs of the line jack to the first data-paired port and connect the outside pair to the second data-paired port. Refer to Figure 2-5 for an illustration of this wiring.

- Connect pins 3 and 4 to the voice pair and pins 2 and 5 to data pair of the first data-paired port.
- Connect pins 1 and 6 to the voice pair of the second data-paired port.

To enable the SOHVA feature, the following programming considerations must be taken:

- The first paired-port must be programmed as a multiline port.
- The second paired-port must be programmed as a DSS console with call announce port.

### POWER FAILURE STATION CONNECTIONS

The system provides three tip and ring pairs connected to lines 1, 2, and 3 as emergency, power failure circuits. These power failure pairs are located as detailed on Table 2-4 and Figure 2-4. A power failure pair is only active during a power failure. An industry standard, single-line telephone, such as a type 2500, can be connected to a power failure pair and used to provide communications capability should the AC power to the system be interrupted.

### A-LEAD CONTROL DEVICE CONNECTIONS

The KSU can detect an A-lead (A and A1) control signal when it is applied to lines 7 and 8. An A-lead control device can be bridge-connected to these lines via terminal clips on the J-4 station connector block. Refer to Table 2-4 and Figure 2-4 for connection details.

### DATA DEVICE CONNECTIONS

When a serial data printer is used for SMDR and COS printout, or a video display terminal (VDT) is used to perform class of service programming connect the data device to terminal clips on the J-4 station connector block.

The distance between the device and the KSU can be up to 500 feet in a quiet electrical environment. Shielded cable may be required at some sites for long runs. For longer distances, a limited distance modem must be used to relay the data communications between the common equipment and the data device. Refer to Table 2-4 for connection details.

When preparing a cable for connection to a data device, refer to the manufacturer's manual for the equipment being interfaced, and make the following wiring connections:

- Wire the KSU RD line (data from device to KSU) to the device TD (transmit data) output pin.
- Wire the KSU TD (data to device from KSU) pin to the device RD (receive data) pin.
- Wire the KSU SG (signal ground) pin to the device SG (signal ground) pin.
- Wire the KSU CTS (clear-to-send status from device to KSU) pin to the device RTS (request-to-send) output pin.

**NOTE:** *The KSU requires a positive voltage, with respect to signal ground, in order to send data. If required, wire the KSU RTS (request-to-send status signal from the KSU to the device) pin to the device DSR (data-set-ready) input pin.*

If required, wire the KSU PG (protective ground) line(s) to the protective ground pin(s) of the device.

The system defaults to 7-bit data with no parity at a baud rate of 1200. Configure the device, per the manufacturer's instructions, to match the data format and baud rate that is set by COS programming.

## SYSTEM GROUNDING

The common equipment cabinet has internal secondary surge protection on all line ports. In order for this protection to be effective, the cabinet **MUST** be connected to a reliable earth ground such as a metal cold water pipe or a building frame ground. The grounding wire must be of #10 or #12 insulated, solid copper and separate from the three-wire AC line cord. A ground stud is located on the common equipment cabinet for this purpose.

## COMMON AUDIBLE AND AUXILIARY STATION INTERFACE

Two sets of relay closure dry-contact points are available at the J-1 and J-2 station connector blocks. One set (J-1 connections) provides a dry-contact closure whenever any of the TELCO/PBX lines, connected to the KSU, ring. The other set (J-2 connections) provides a dry-contact closure whenever system station port 17 rings. These contact closures track the ringing pattern in both cases. The contacts are closed during the ringing period and are open during the silent period.

A typical connection is illustrated in Figure 2-2. Refer to the paragraph headed Area Paging Interface for a discussion for using these terminals in this alternate paging function.

### CAUTION

**Do not exceed a 1 amp at 24 volts (.5 amp at 48 volts) load on these control terminals. If the load requirements exceed this limit, connect the load through an external slave relay. DO NOT CONNECT THESE CONTROL TERMINALS DIRECTLY TO THE 117VAC LINE.**

## AREA PAGING INTERFACE - STATION PA PORT

Any unused station port can be programmed to be a PA port instead of a telephone station port (see Chapter 3 for programming details).

The audio input of an external paging amplifier can be connected to the audio pair of the station port as illustrated in Figure 2-3.

The audio input connection must be isolated with a 600 ohm to 600 ohm audio matching transformer. Terminate the audio input of the PA system with a 620 ohm (nominal value) resistor.

If station port 39 is programmed as a PA port, the Common Audible contact points are automatically reconfigured as PA enable terminals. The contact closure now occurs when PA station 39 is dialed. The normal common audible function, as discussed

previously, is disabled as long as station 39 is a PA station.

If station port 41 is programmed as a PA port, the Auxiliary Station Interface (station port 17 audible) contact points are automatically reconfigured as PA enable terminals. The contact closure now occurs when PA station port 41 is dialed. The normal auxiliary station interface function, as discussed previously, is disabled as long as station port 41 is a PA station.

## AREA PAGING INTERFACE - LINE PORT

A line port can be configured by class of service programming to be an AUXILIARY port. As an AUXILIARY port, it can be used to couple a station voice path to an external device. This is done from any allowed station by pressing the proper line key to select the AUXILIARY port. DTMF tones or dial pulses can be dialed through the auxiliary port as needed.

If direct access area paging is to be part of the system, connect the audio input of a paging amplifier to the line that is programmed to be an AUXILIARY port. The input impedance of this port is approximately 600 ohms. A tone select, zone-paging amplifier can be employed if desired. If used, the zone-select code must be dialed after the AUXILIARY port line select key is pressed.

## KEY SYSTEM/MULTIFUNCTION (HYBRID) CONFIGURATION

The system can be configured to operate as either a key system or as a multifunction (hybrid) system.

Configuration is by way of a wire strap placed between clip terminals 27 and 28 of station connector block J-4.

The KSU is shipped from the factory as a key system (KF). To convert operation over to the multifunction (MF) system, add the strap.

The KF and MF designations are equipment type categories as stipulated in FCC rules and regulations, Part 68, and appear as part of the FCC Registration Number on the equipment label. The appropriate registration number must be reported to the telephone company at the time of connection along with other FCC mandated information. (Refer to *Installer/user Information Regarding FCC Rules And Regulations* found in Chapter 1 of this manual.)

Operationally, the multifunction (hybrid) configuration enables certain PBX features which may incur a higher monthly tariff to the telephone company. These features allow dial access to (automatic selection of) outgoing lines. The specific Executech feature that is enabled is:

- Line Group (Including Dial Access)

### **MUSIC INTERFACE**

If music is to be part of the system, connect a KX registered music source to the KSU input jack (phono jack) provided for this purpose.

The impedance of this input is approximately 500 ohms. Level adjustment of the music source may be necessary. This may be done during system checkout.

### **CASSETTE TAPE RECORDER INTERFACE**

A customer provided, audio cassette, tape recorder can be connected to the music interface jack. Class of service programming can be both stored and loaded via the recorder through this interface. This action is controlled from station 10 or 11 as detailed in Chapter 3, *System Programming*.

Table 2-1. Wiring For Station Connector Block J-1

SYSTEM INTERCONNECTION FOR KSU J-1							
KSU INTERFACE CONNECTOR WIRING			CONNECTION BLOCK WIRING				
25-PAIR CABLE CONNECTIONS			ASSIGNMENT		4-WIRE CABLE CONNECTIONS		
WIRE COLOR	PAIR	PIN NO.			COLOR	CLIP TERM.	
WHITE-BLUE	1	26	STATION 10	VOICE PAIR	GREEN	1	
BLUE-WHITE		1				RED	2
WHITE-ORANGE	2	27			DATA PAIR	YELLOW	3
ORANGE-WHITE		2				BLACK	4
WHITE-GREEN	3	28	ADJUNCT PORT 10	POWER PAIR	GREEN	5	
GREEN-WHITE		3				RED	6
WHITE-BROWN	4	29			DATA PAIR	YELLOW	7
BROWN-WHITE		4				BLACK	8
WHITE-SLATE	5	30	STATION 11	VOICE PAIR	GREEN	9	
SLATE-WHITE		5				RED	10
RED-BLUE	6	31			DATA PAIR	YELLOW	11
BLUE-RED		6				BLACK	12
RED-ORANGE	7	32	ADJUNCT PORT 11	POWER PAIR	GREEN	13	
ORANGE-RED		7				RED	14
RED-GREEN	8	33			DATA PAIR	YELLOW	15
GREEN-RED		8				BLACK	16
RED-BROWN	9	34	STATION 12	VOICE PAIR	GREEN	17	
BROWN-RED		9				RED	18
RED-SLATE	10	35			DATA PAIR	YELLOW	19
SLATE-RED		10				BLACK	20
BLACK-BLUE	11	36	ADJUNCT PORT 12	POWER PAIR	GREEN	21	
BLUE-BLACK		11				RED	22
BLACK-ORANGE	12	37			DATA PAIR	YELLOW	23
ORANGE-BLACK		12				BLACK	24
BLACK-GREEN	13	38	STATION 13	VOICE PAIR	GREEN	25	
GREEN-BLACK		13				RED	26
BLACK-BROWN	14	39			DATA PAIR	YELLOW	27
BROWN-BLACK		14				BLACK	28
BLACK-SLATE	15	40	ADJUNCT PORT 13	POWER PAIR	GREEN	29	
SLATE-BLACK		15				RED	30
YELLOW-BLUE	16	41			DATA PAIR	YELLOW	31
BLUE-YELLOW		16				BLACK	32
YELLOW-ORANGE	17	42	STATION 14	VOICE PAIR	GREEN	33	
ORANGE-YELLOW		17				RED	34
YELLOW-GREEN	18	43			DATA PAIR	YELLOW	35
GREEN-YELLOW		18				BLACK	36
YELLOW-BROWN	19	44	STATION 15	VOICE PAIR	GREEN	37	
BROWN-YELLOW		19				RED	38
YELLOW-SLATE	20	45			DATA PAIR	YELLOW	39
SLATE-YELLOW		20				BLACK	40
VIOLET-BLUE	21	46	STATION 16	VOICE PAIR	GREEN	41	
BLUE-VIOLET		21				RED	42
VIOLET-ORANGE	22	47			DATA PAIR	YELLOW	43
ORANGE-VIOLET		22				BLACK	44
VIOLET-GREEN	23	48	STATION 17	VOICE PAIR	GREEN	45	
GREEN-VIOLET		23				RED	46
VIOLET-BROWN	24	49			DATA PAIR	YELLOW	47
BROWN-VIOLET		24				BLACK	48
VIOLET-SLATE	25	50	COMMON AUDIBLE AUXILIARY INTERFACE		GREEN	49	
SLATE-VIOLET		25				RED	50

Table 2-2. Wiring For Station Connector Block J-2

SYSTEM INTERCONNECTION FOR KSU J-2						
KSU INTERFACE CONNECTOR WIRING			CONNECTION BLOCK WIRING			
25-PAIR CABLE CONNECTIONS			ASSIGNMENT		4-WIRE CABLE CONNECTIONS	
WIRE COLOR	PAIR	PIN NO.			COLOR	CLIP TERM.
WHITE-BLUE	1	26	STATION 18	VOICE PAIR	GREEN	1
BLUE-WHITE		1				RED
WHITE-ORANGE	2	27	STATION 19	DATA PAIR	YELLOW	3
ORANGE-WHITE		2				BLACK
WHITE-GREEN	3	28	STATION 20	VOICE PAIR	GREEN	5
GREEN-WHITE		3				RED
WHITE-BROWN	4	29	STATION 21	DATA PAIR	YELLOW	7
BROWN-WHITE		4				BLACK
WHITE-SLATE	5	30	STATION 22	VOICE PAIR	GREEN	9
SLATE-WHITE		5				RED
RED-BLUE	6	31	STATION 23	DATA PAIR	YELLOW	11
BLUE-RED		6				BLACK
RED-ORANGE	7	32	STATION 24	VOICE PAIR	GREEN	13
ORANGE-RED		7				RED
RED-GREEN	8	33	STATION 25	DATA PAIR	YELLOW	15
GREEN-RED		8				BLACK
RED-BROWN	9	34	STATION 26	VOICE PAIR	GREEN	17
BROWN-RED		9				RED
RED-SLATE	10	35	STATION 27	DATA PAIR	YELLOW	19
SLATE-RED		10				BLACK
BLACK-BLUE	11	36	STATION 28	VOICE PAIR	GREEN	21
BLUE-BLACK		11				RED
BLACK-ORANGE	12	37	STATION 29	DATA PAIR	YELLOW	23
ORANGE-BLACK		12				BLACK
BLACK-GREEN	13	38	STATION 30	VOICE PAIR	GREEN	25
GREEN-BLACK		13				RED
BLACK-BROWN	14	39	STATION 31	DATA PAIR	YELLOW	27
BROWN-BLACK		14				BLACK
BLACK-SLATE	15	40	STATION 32	VOICE PAIR	GREEN	29
SLATE-BLACK		15				RED
YELLOW-BLUE	16	41	STATION 33	DATA PAIR	YELLOW	31
BLUE-YELLOW		16				BLACK
YELLOW-ORANGE	17	42	STATION 34	VOICE PAIR	GREEN	33
ORANGE-YELLOW		17				RED
YELLOW-GREEN	18	43	STATION 35	DATA PAIR	YELLOW	35
GREEN-YELLOW		18				BLACK
YELLOW-BROWN	19	44	STATION 36	VOICE PAIR	GREEN	37
BROWN-YELLOW		19				RED
YELLOW-SLATE	20	45	STATION 37	DATA PAIR	YELLOW	39
SLATE-YELLOW		20				BLACK
VIOLET-BLUE	21	46	STATION 38	VOICE PAIR	GREEN	41
BLUE-VIOLET		21				RED
VIOLET-ORANGE	22	47	STATION 39	DATA PAIR	YELLOW	43
ORANGE-VIOLET		22				BLACK
VIOLET-GREEN	23	48	STATION 40	VOICE PAIR	GREEN	45
GREEN-VIOLET		23				RED
VIOLET-BROWN	24	49	STATION 41	DATA PAIR	YELLOW	47
BROWN-VIOLET		24				BLACK
VIOLET-SLATE	25	50	STATION 17 AUXILIARY INTERFACE		GREEN	49
SLATE-VIOLET		25				RED

Table 2-3. Wiring For Station Connector Block J-3

SYSTEM INTERCONNECTION FOR KSU J-3						
KSU INTERFACE CONNECTOR WIRING			CONNECTION BLOCK WIRING			
25-PAIR CABLE CONNECTIONS			ASSIGNMENT		4-WIRE CABLE CONNECTIONS	
WIRE COLOR	PAIR	PIN NO.			COLOR	CLIP TERM.
WHITE-BLUE	1	26	STATION 30	VOICE PAIR	GREEN	1
BLUE-WHITE		1		RED	2	
WHITE-ORANGE	2	27	STATION 30	DATA PAIR	YELLOW	3
ORANGE-WHITE		2		BLACK	4	
WHITE-GREEN	3	28	STATION 31	VOICE PAIR	GREEN	5
GREEN-WHITE		3		RED	6	
WHITE-BROWN	4	29	STATION 31	DATA PAIR	YELLOW	7
BROWN-WHITE		4		BLACK	8	
WHITE-SLATE	5	30	STATION 32	VOICE PAIR	GREEN	9
SLATE-WHITE		5		RED	10	
RED-BLUE	6	31	STATION 32	DATA PAIR	YELLOW	11
BLUE-RED		6		BLACK	12	
RED-ORANGE	7	32	STATION 33	VOICE PAIR	GREEN	13
ORANGE-RED		7		RED	14	
RED-GREEN	8	33	STATION 33	DATA PAIR	YELLOW	15
GREEN-RED		8		BLACK	16	
RED-BROWN	9	34	STATION 34	VOICE PAIR	GREEN	17
BROWN-RED		9		RED	18	
RED-SLATE	10	35	STATION 34	DATA PAIR	YELLOW	19
SLATE-RED		10		BLACK	20	
BLACK-BLUE	11	36	STATION 35	VOICE PAIR	GREEN	21
BLUE-BLACK		11		RED	22	
BLACK-ORANGE	12	37	STATION 35	DATA PAIR	YELLOW	23
ORANGE-BLACK		12		BLACK	24	
BLACK-GREEN	13	38	STATION 36	VOICE PAIR	GREEN	25
GREEN-BLACK		13		RED	26	
BLACK-BROWN	14	39	STATION 36	DATA PAIR	YELLOW	27
BROWN-BLACK		14		BLACK	28	
BLACK-SLATE	15	40	STATION 37	VOICE PAIR	GREEN	29
SLATE-BLACK		15		RED	30	
YELLOW-BLUE	16	41	STATION 37	DATA PAIR	YELLOW	31
BLUE-YELLOW		16		BLACK	32	
YELLOW-ORANGE	17	42	STATION 38	VOICE PAIR	GREEN	33
ORANGE-YELLOW		17		RED	34	
YELLOW-GREEN	18	43	STATION 38	DATA PAIR	YELLOW	35
GREEN-YELLOW		18		BLACK	36	
YELLOW-BROWN	19	44	STATION 39	VOICE PAIR	GREEN	37
BROWN-YELLOW		19		RED	38	
YELLOW-SLATE	20	45	STATION 39	DATA PAIR	YELLOW	39
SLATE-YELLOW		20		BLACK	40	
VIOLET-BLUE	21	46	STATION 40	VOICE PAIR	GREEN	41
BLUE-VIOLET		21		RED	42	
VIOLET-ORANGE	22	47	STATION 40	DATA PAIR	YELLOW	43
ORANGE-VIOLET		22		BLACK	44	
VIOLET-GREEN	23	48	STATION 41	VOICE PAIR	GREEN	45
GREEN-VIOLET		23		RED	46	
VIOLET-BROWN	24	49	STATION 41	DATA PAIR	YELLOW	47
BROWN-VIOLET		24		BLACK	48	
VIOLET-SLATE	25	50	SPARE		GREEN	49
SLATE-VIOLET		25		RED	50	

Table 2-4. Wiring For Auxillary Connector Block J-4

SYSTEM INTERCONNECTION FOR KSU J-4						
KSU INTERFACE CONNECTOR WIRING			CONNECTION BLOCK WIRING			
25-PAIR CABLE CONNECTIONS			ASSIGNMENT		CABLE CONNECTIONS	
WIRE COLOR	PAIR	PIN NO.			COLOR	CLIP TERM.
WHITE-BLUE	1	26	POWER FAIL STA. 1	TIP		1
BLUE-WHITE		1		RING		2
WHITE-ORANGE	2	27	POWER FAIL STA. 2	TIP		3
ORANGE-WHITE		2		RING		4
WHITE-GREEN	3	28	POWER FAIL STA. 3	TIP		5
GREEN-WHITE		3		RING		6
WHITE-BROWN	4	29	SPARE			7
BROWN-WHITE		4				8
WHITE-SLATE	5	30	AUX. EQUIP. INTERFACE TO CO LINE 7	TIP	GREEN	9
SLATE-WHITE		5		RING	RED	10
RED-BLUE	6	31		A	YELLOW	11
BLUE-RED		6		A1	BLACK	12
RED-ORANGE	7	32	AUX. EQUIP. INTERFACE TO CO LINE 8	TIP	GREEN	13
ORANGE-RED		7		RING	RED	14
RED-GREEN	8	33		A	YELLOW	15
GREEN-RED		8		A1	BLACK	16
RED-BROWN	9	34	SPARE			17
BROWN-RED		9				18
RED-SLATE	10	35	SPARE			19
SLATE-RED		10				20
BLACK-BLUE	11	36	SPARE			21
BLUE-BLACK		11				22
BLACK-ORANGE	12	37	SPARE			23
ORANGE-BLACK		12				24
BLACK-GREEN	13	38	SPARE			25
GREEN-BLACK		13				26
BLACK-BROWN	14	39	KEY/MULTIFUNCTION STRAP(OUT FOR KEY)			27
BROWN-BLACK		14				28
BLACK-SLATE	15	40	SPARE			29
SLATE-BLACK		15				30
YELLOW-BLUE	16	41	SPARE			31
BLUE-YELLOW		16				32
YELLOW-ORANGE	17	42	SPARE			33
ORANGE-YELLOW		17				34
YELLOW-GREEN	18	43	SPARE			35
GREEN-YELLOW		18				36
YELLOW-BROWN	19	44	SPARE			37
BROWN-YELLOW		19				38
YELLOW-SLATE	20	45	SMDR DATA PRINTER INTERFACE	RD		39
SLATE-YELLOW		20		SPARE		40
VIOLET-BLUE	21	46		TD		41
BLUE-VIOLET		21		SG		42
VIOLET-ORANGE	22	47		RTS		43
ORANGE-VIOLET		22		CTS		44
VIOLET-GREEN	23	48		PG		45
GREEN-VIOLET		23		PG		46
VIOLET-BROWN	24	49	SPARE			47
BROWN-VIOLET		24				48
VIOLET-SLATE	25	50	SPARE			49
SLATE-VIOLET		25				50



Table 2-5. Wiring For CO/PBX Connector Block J-5

<b>SYSTEM INTERCONNECTION FOR KSU J-5</b>						
<b>KSU INTERFACE CONNECTOR WIRING</b>			<b>CONNECTION BLOCK WIRING</b>			
<b>25-PAIR CABLE CONNECTIONS</b>			<b>ASSIGNMENT</b>		<b>CONNECTIONS</b>	
<b>WIRE COLOR</b>	<b>PAIR</b>	<b>PIN NO.</b>			<b>COLOR</b>	<b>CLIP TERM.</b>
WHITE-BLUE	1	26	CO LINE 1	TIP	1	
BLUE-WHITE		1		RING	2	
WHITE-ORANGE	2	27	CO LINE 2	TIP	3	
ORANGE-WHITE		2		RING	4	
WHITE-GREEN	3	28	CO LINE 3	TIP	5	
GREEN-WHITE		3		RING	6	
WHITE-BROWN	4	29	CO LINE 4	TIP	7	
BROWN-WHITE		4		RING	8	
WHITE-SLATE	5	30	CO LINE 5	TIP	9	
SLATE-WHITE		5		RING	10	
RED-BLUE	6	31	CO LINE 6	TIP	11	
BLUE-RED		6		RING	12	
RED-ORANGE	7	32	CO LINE 7	TIP	13	
ORANGE-RED		7		RING	14	
RED-GREEN	8	33	CO LINE 8	TIP	15	
GREEN-RED		8		RING	16	
RED-BROWN	9	34	CO LINE 9	TIP	17	
BROWN-RED		9		RING	18	
RED-SLATE	10	35	CO LINE 10	TIP	19	
SLATE-RED		10		RING	20	
BLACK-BLUE	11	36	CO LINE 11	TIP	21	
BLUE-BLACK		11		RING	22	
BLACK-ORANGE	12	37	CO LINE 12	TIP	23	
ORANGE-BLACK		12		RING	24	
BLACK-GREEN	13	38	CO LINE 13	TIP	25	
GREEN-BLACK		13		RING	26	
BLACK-BROWN	14	39	CO LINE 14	TIP	27	
BROWN-BLACK		14		RING	28	
BLACK-SLATE	15	40	SPARE		29	
SLATE-BLACK		15			30	
YELLOW-BLUE	16	41	SPARE		31	
BLUE-YELLOW		16			32	
YELLOW-ORANGE	17	42	SPARE		33	
ORANGE-YELLOW		17			34	
YELLOW-GREEN	18	43	SPARE		35	
GREEN-YELLOW		18			36	
YELLOW-BROWN	19	44	SPARE		37	
BROWN-YELLOW		19			38	
YELLOW-SLATE	20	45	SPARE		39	
SLATE-YELLOW		20			40	
VIOLET-BLUE	21	46	SPARE		41	
BLUE-VIOLET		21			42	
VIOLET-ORANGE	22	47	SPARE		43	
ORANGE-VIOLET		22			44	
VIOLET-GREEN	23	48	SPARE		45	
GREEN-VIOLET		23			46	
VIOLET-BROWN	24	49	SPARE		47	
BROWN-VIOLET		24			48	
VIOLET-SLATE	25	50	SPARE		49	
SLATE-VIOLET		25			50	

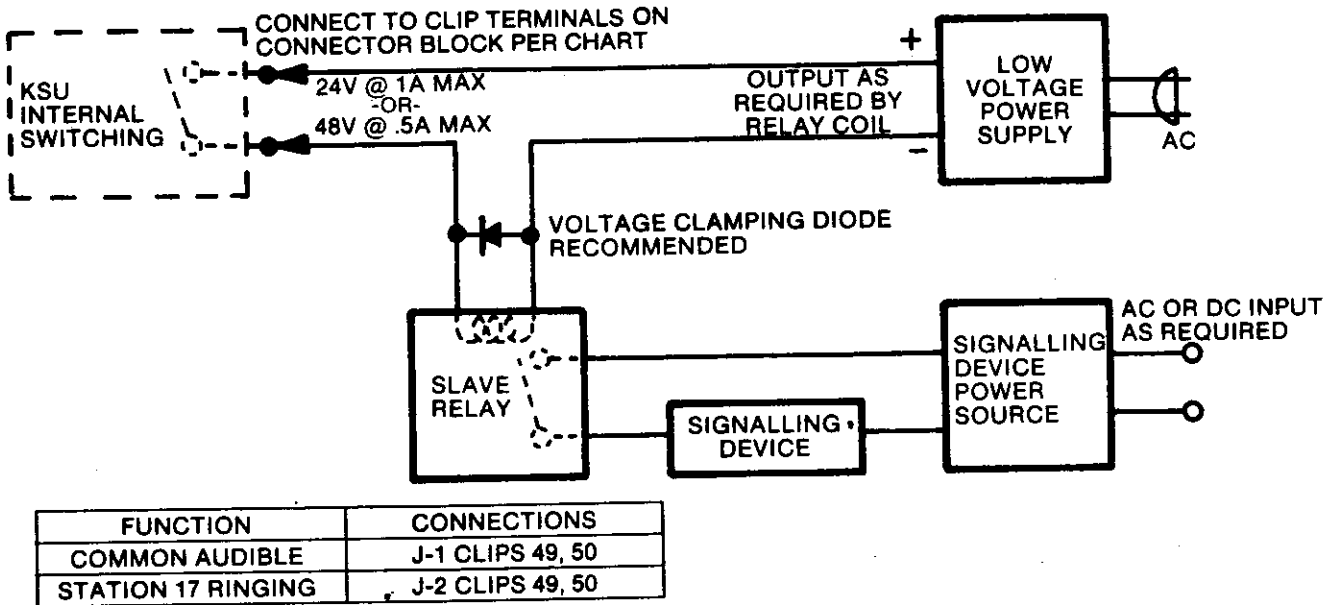


Figure 2-2. Common Audible/Auxiliary Station Interface Wiring (Typical Connection)

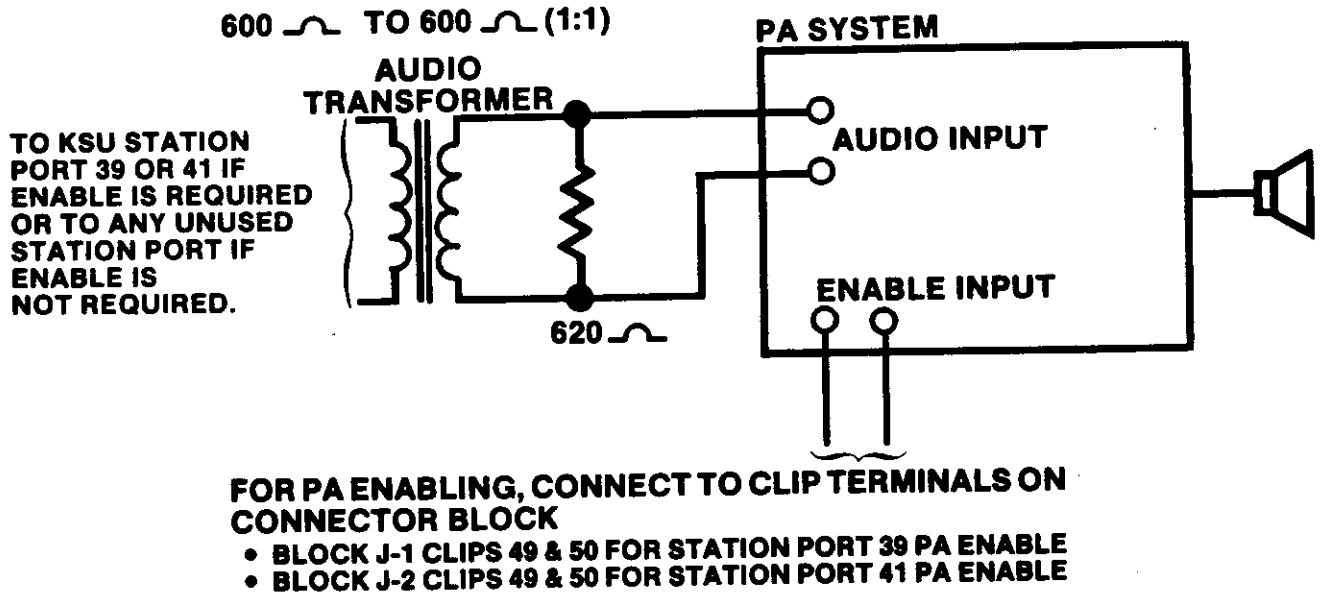


Figure 2-3. PA Connections



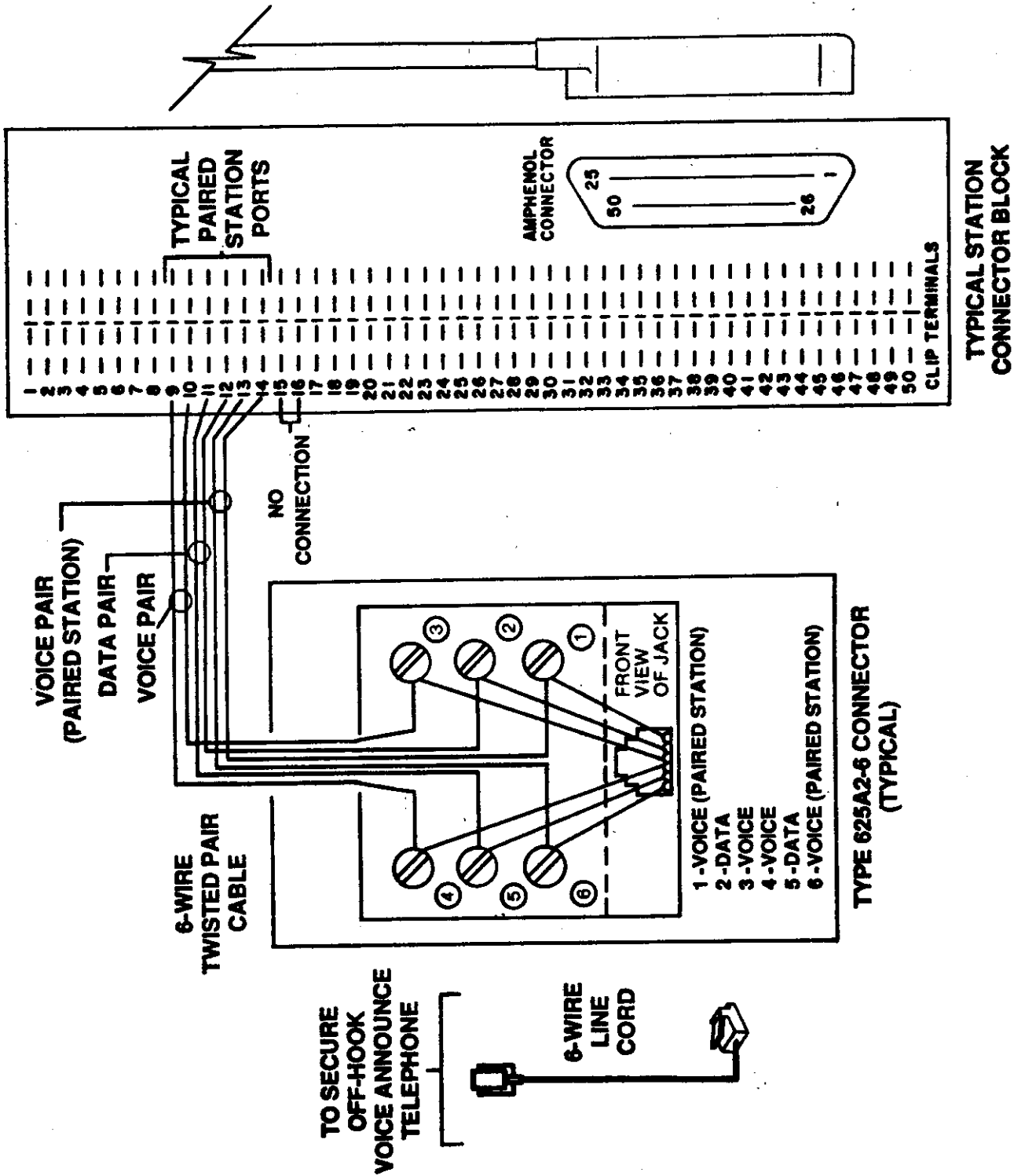


Figure 2-5. Secure Off-Hook Voice Announce Telephone Connections

## SYSTEM CHECKOUT

### INITIAL CONDITION

The system operating features are set to default conditions at initial power up. These conditions provide a basic operating system with a known set of parameters, and the system should be initially checked out with the default conditions in place. At anytime while the system is operating, default conditions can be reset from station port 10 or 11 per the instructions provided in Chapter 3.

### CHECK OUT

Check the KSU and telephone installation for proper operation by performing the following resistance and voltage measurements.

#### Resistance Check

Make the following resistance measurements at the station connector blocks under the following conditions:

- KSU AC power cord disconnected from electrical outlet.
  - Power interconnection cable connected between KSU and power supply.
  - KSU connected to station connector blocks.
  - Stations wired, and wiring punched down on blocks.
  - Bridging clips removed from blocks to isolate stations from KSU.
1. Measure the resistance of each installed station and wiring from the station side of the connector blocks. Resistance values will vary with cable length and station type but should be within the following limits.
  2. Measure the resistance of the KSU and cables from the KSU side of the station connector blocks. Resistance values should be within the following limits.

MEASURED PAIR	STATION RESISTANCE IN OHMS				
	MULTILINE KEYSET	3 AND 8 LINE KEYSET	SINGLE LINE KEYSET	DSS/BLF CONSOLE	8 LINE BLF
VOICE PAIR	40 - 150	40 - 150	40 - 150	0.3 - 100	40 - 150
DATA PAIR	0.3 - 100	40 - 150	0.3 - 100	0.3 - 100	40 - 150

MEASURED PAIR	KSU RESISTANCE IN OHMS
VOICE PAIR	40 - 50
DATA PAIR	0.3 - 0.5

**Voltage Check**

Make the following voltage measurements at the station connector blocks under the following conditions:

- Bridging clips installed
- AC power connected to the KSU

Measure the voltage across one voice line and one data line and then across the other voice line and the other data line for each even and odd station. The measured voltage must be per the following chart. Variant readings can indicate a possible wiring, station, or KSU problem.

UNIT UNDER TEST	66M-xx BLOCK CONNECTION	METER LEAD POLARITY	MEASURED VOLTAGE
TYPICAL EVEN STATION (Repeat for each even sta.)	Voice 1	(+)	+33 +/- 8 VDC
	Data 3	(-)	
	Voice 2	(+)	+33 +/- 8 VDC
	Data 4	(-)	
TYPICAL ODD STATION (Repeat for each odd sta.)	Voice 9	(+)	-33 +/- 8 VDC
	Data 11	(-)	
	Voice 10	(+)	-33 +/- 8 VDC
	Data 12	(-)	

**General Check**

1. Check the red light emitting diode (LED) system status indicator. Be sure that it is on steady. If it is off or flashing, disconnect and reconnect the AC power plug. If the indicator is still not on steady, refer to the Failure Analysis Flow Chart found in Chapter 4.
2. Refer to the station User's Guide for operating information. Perform a general operational test of the system by exercising the system features from station port 10 or 11. Operational parameters are per the system default conditions as detailed in Chapter 3 until Class Of Service (COS) programming is performed.
3. Once the basic system is verified as operational, perform the COS programming.

## CHAPTER 3 SYSTEM PROGRAMMING

### GENERAL INFORMATION

- Class Of Service (COS) programming consists of the following major categories: General System COS, Toll Table Entry, Line COS, and Station COS.
- Class of service programming can be performed from either station port 10 or station 11. In addition, a 32-button DSS/BLF console must be installed in the adjunct port 10 or 11 respectively.
  - **When programming from station port 10,** employ an LCD Speakerphone and take note of the following important condition: *The LCD Speakerphone does not provide buttons B4 through B8. In performing the following procedures, whenever a programming step calls for buttons B1 through B8 to be pressed, first press the B1 button to shift the A-field buttons. When shifted, buttons A1 through A8 will represent buttons B1 through B8. The B1 button performs a shift/no-shift toggle action each time it is pressed. The associated indicator turns on (shift) when A1 - A8 = B1 - B8 and off (no-shift) when A1 - A8 = A1 - A8.*

#### CAUTION

**It is very important to return the A-field buttons to their normal, or no-shift, state after the required B1 - B8 programming action is taken.**

- **When programming from station port 11,** employ a 22 Line/Feature keyset, and perform the procedures as detailed in this chapter.
- Programming overlays are included with each system for use in identifying the buttons required for COS programming. One overlay fits over the buttons of the station installed at station port 10 or 11 and designates the A-field and B-field buttons. The other overlay fits over the buttons of the console installed at adjunct port 10 or 11 and designates the C-field buttons. Full size copies of the programming overlays are included at the end of this chapter for use if needed.
- System and line COS programming do not require that a sequential process be followed once the base level program entry mode has been established except where noted herein. Station COS programming does follow a sequential process.

- Prior to taking any programming action, determine the system, line and station COS conditions and all toll restriction requirements. Record this data on the programming reference tables included within the programming procedures.
- A set of COS values can be recorded on cassette tape from a programmed system and later re-loaded into the same system or into another system. This method of programming can be employed in lieu of using the step-by-step programming sequence.
- A complete or a partial printed record of the COS program values can be obtained with a serial data printer connected to the SMDR output lines of the KSU. Complete details concerning this procedure are included at the end of this chapter.

### SPECIAL PROGRAMMING REQUIREMENTS

#### SINGLE-LINE KEYSETS

Several programming steps under COS programming must be observed for proper operation of a Single-Line Keyset.

- When the system is strapped for key system configuration, the Single-Line Keyset is an intercom only station. It can be configured for private line only by programming the applicable station port for the prime line automatic feature. When the port is programmed with the prime line automatic feature, the Single-Line Keyset cannot be programmed with station speed dial numbers.
- When the system is strapped for the multifunction (hybrid) system configuration, originating outside calls with a Single-Line Keyset requires that one or more lines must be programmed into a line group.
- In order to receive outside calls on a Single-Line Keyset, the call must be answered by an attendant using a multiline station and transferred to the single-line station. Otherwise, the Single-Line Keyset station port must be programmed to have the ringing line preference feature with ringing enabled on all desired lines. Alternately it can be programmed to have the prime line automatic feature with ringing enabled at the prime line.

**REUSED 8 LINE BLF KEYSSET**

Even though an 8 Line BLF Keypad is physically connected to only one station port, it appears to the system as two data-paired stations. Special programming is required to enable proper operation of a reused 8 Line BLF Keypad.

- The station port to which it is connected must be programmed for a 3 and 8 Line Keypad.
- The paired station port must be programmed for an 8 Line BLF Keypad although it can not be connected to any equipment.
- When the 8 Line BLF Keypad is connected to station port 11, 12, or 13, the respective adjunct port serves as the paired port.
- When connected to station ports 14 through 41, the paired port is as charted in Chapter 2, Installation, or Chapter 5, Maintenance.

After COS programming of the station port is complete, the DSS/BLF buttons of the 8 Line BLF Keypad must be programmed, from that station. Program them to contain the intercom dialing sequence for each station in the system for which visual indication is desired.

It should be noted that certain features, such as call-back messaging, are not available with the 8 Line BLF Keypad.

**CLASS OF SERVICE PROGRAMMING WITH A 40-BUTTON OR A 32-BUTTON CONSOLE**

The system will recognize either a C42 through C49 from a 40-button console or a HOLD, 1 through HOLD, 8 from the keypad as the same programming buttons. Because of this, it is possible to program with a 32-button console installed at adjunct port 10 or 11. The programming buttons C42 through C49 (normally provided by a 40-button console and not available on a 32-button console) are relocated to the keypad as follows:

40-BUTTON CONSOLE BUTTON	ALTERNATE KEYSSET BUTTON WHEN 32-BUTTON CONSOLE IS INSTALLED
C42	HOLD, 1
C43	HOLD, 2
C44	HOLD, 3
C45	HOLD, 4
C46	HOLD, 5
C47	HOLD, 6
C48	HOLD, 7
C49	HOLD, 8

**BASE LEVEL PROGRAM ENTRY MODE**

The first step in any COS programming sequence is to enter the base level programming mode. Once in this mode, COS can be set as desired.

To enter base level:

1. Press the ITCM button. The dial tone will sound.
2. Press the following buttons in sequence: \* 7 4 6. Note that the dial tone stops and a tone burst sounds to indicate that the base level programming mode is entered.
3. Press the \* button. The dial tone will return as a confirmation that the base level mode is active.
4. Proceed from this point to program the system, line, or station COS and the toll restriction tables.

**CLASS OF SERVICE DEFAULT**

The system can be defaulted to a standard class of service per the following procedure. The default conditions are listed at the beginning of each COS programming procedure and shaded on the programming reference charts.

1. Press ITCM \* 7 4 6 \*.
2. Press program button B5 (B1, A5, B1 on LCD Speakerphone).
3. Press keypad button(s) to choose default setting:
  - 1 = system default
  - 2 = line default
  - 3 = station default
  - 4 = pulse dialing, all lines
  - 5 = tone dialing, all lines
  - 6 = button mapping default
  - # = one 80-column SMDR line
  - 8 = two 40-column SMDR lines
  - C10 = enable TRANS/CONF support
  - C11 = enable SAVE support
  - C12 = immediate transfer on
  - C13 = immediate transfer off
  - 7051684 = master default

**CAUTION**

Master default action resets all values and clears all stored memory - Do not perform this programming action while the system is in use.

4. Press \* MNTR (SPKR on speakerphones) to end.



## SYSTEM COS PROGRAMMING PROCEDURE

### SYSTEM DEFAULTS

Recall/Flash Time = 2 Seconds  
 Intercom Signalling = Voice First  
 Pause Time = 1 Second  
 Central Message Desk = Not Assigned  
 Timed Hold Recall Time = 60 Seconds  
 Unanswered Call Transfer = 20 Seconds  
 Printer Baud Rate = 1200 baud, 7-bit Data  
 Print Length = 40 Column  
 Port Assignments:

- All Station Ports = 22 Line/Feature Keyset
- All Adjunct Ports = 40-button DSS/BLF Consoles
- Station And Adjunct Ports 10 Always Default

### PROCEDURE

1. Press **ITCM \* 7 4 6 \*** (base level entry if not active).

2. Set recall/flash time.

- Press program button **B1** (B1, A1, B1 on LCD Speakerphone).
- Press keypad button for time.
 

1 = 80 msec.	6 = 875 msec.
2 = 300 msec.	7 = 1.0 sec.
3 = 500 msec.	8 = 1.5 sec.
4 = 600 msec.	9 = 2.0 sec.
5 = 750 msec.	0 = 3.0 sec.

- Press **S** to return to base level.

3. Set pause time.

- Press program button **B2** (B1, A2, B1 on LCD Speakerphone).
- Press keypad button for time.
 

1 = .5 sec.	6 = 5.0 sec.
2 = 1.0 sec.	7 = 7.5 sec.
3 = 1.5 sec.	8 = 10.0 sec.
4 = 2.0 sec.	9 = 15.0 sec.
5 = 3.0 sec.	0 = 20.0 sec.

- Press **S** to return to base level.

4. Set timed hold recall time.

- Press program button **B3** (B1, A3, B1 on LCD Speakerphone).
- Press keypad button for time.
 

1 = 30 sec.	6 = 240 sec.
2 = 60 sec.	7 = 300 sec.

3 = 90 sec.	8 = 360 sec.
4 = 120 sec.	9 = 420 sec.
5 = 180 sec.	0 = disabled

**NOTE:** The 0 program selection enables an exclusive hold condition (when set at a station) to place a line in a hold condition at one station that cannot be released at any other station.

- Press **\*** to return to base level.

5a. Set baud rate of printout.

- Press program button **B6** (B1, A6, B1 on LCD Speakerphone).
- Set baud rate with keypad.
 

1 = 110 baud, 7 bits	6 = 2400 baud, 7 bits
2 = 150 baud, 7 bits	7 = 3600 baud, 7 bits
3 = 300 baud, 7 bits	8 = 4800 baud, 7 bits
4 = 600 baud, 7 bits	9 = 9600 baud, 7 bits
5 = 1200 baud, 7 bits	0 = 19200 baud, 7 bits

- Press **\*** to return to base level.

5b. Set line length of printout.

- Press program button **B5** (B1, A5, B1 on LCD Speakerphone).
- Press **#** for one 80 column.  
     -OR-  
     Press **8** for two 40 columns.
- Press **\*** to return to base level.

6. Choose intercom first signalling.

- Press **TAP** for voice.  
     -OR-  
     Press **TRANS/CONF** for tone.
- Press **\*** to return to base level.

7. Specify central message desk (only one central message desk per system allowed).

- Press **#**.
- To choose station 10 - 41, press console button **C10 - C41**.
- To cancel, press **# \***.
- Press **\*** to return to base level.

## 8. Set recall time for unanswered call transfer.

- Press program button **B7** (**B1, A7, B1** on LCD Speakerphone).
- Press keypad buttons for time.
 

<b>1 = 10 sec.</b>	<b>6 = 60 sec.</b>
<b>2 = 20 sec.</b>	<b>7 = 90 sec.</b>
<b>3 = 25 sec.</b>	<b>8 = 120 sec.</b>
<b>4 = 30 sec.</b>	<b>9 = 180 sec.</b>
<b>5 = 45 sec.</b>	<b>0 = 240 sec.</b>

- Press \* to return to base level.

## 9. Specify station type for each adjunct port.

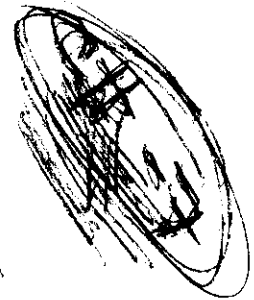
- Press console button to identify adjunct port.
  - C43 = adjunct port 11**
  - C44 = adjunct port 12**
  - C45 = adjunct port 13**
- Press console button to specify equipment type.
  - C46 = 8-Line BLF Keyset**
  - C47 = DSS/BLF Console**

## 10. Specify station type for each station port.

- Press console buttons **C10 - C41** to identify station port 10 - 41.
- Press console button to specify station type.
  - C42 = Single-Line Keyset (administrative phone)**
  - TRANS/CONF = Single-Line Keyset (hotel/motel phone)**
  - C46 = 8 Line BLF Keyset**
  - C47 = DSS/BLF Console (40-button)**
  - C48 = 3 and 8 Line Keyset**
  - C49 = 22 Line/Feature Keyset**
  - C10 = 32-Button Console (without call announce)**
  - 6 = 32-Button Console (with call announce)**
  - 7 = LCD Speakerphone**
- Press \* and repeat steps for each active station port.

**NOTE:** The step 10 action sets station class of service for specified port to the default conditions for that type of station.

- 11. Press \* **MNTR (SPKR)** to exit programming mode.



# SYSTEM COS PROGRAMMING REFERENCE TABLE

- Shading denotes system default conditions.
- Check off values chosen for system being programmed

BASE LEVEL (ITCM) (\*) (7) (4) (6) (\*)

**2** RECALL/FLASH TIME

B1 (B1 A1 B1 LCD PHONE)		
KEY	TIME	CHECK-OFF
1	80 MSEC	
2	300 MSEC	
3	500 MSEC	
4	800 MSEC	
5	750 MSEC	
6	875 MSEC	
7	1.0 SEC	
8	1.5 SEC	
9	2.0 SEC	
0	3.0 SEC	

**5a** BAUD RATE FOR COS AND SMOR DATA

B6 (B1 A5 B1 LCD PHONE)		
KEY	DATA SPEED	CHECK-OFF
1	110 BAUD, 7 BITS	
2	150 BAUD, 7 BITS	
3	300 BAUD, 7 BITS	
4	600 BAUD, 7 BITS	
5	1200 BAUD, 7 BITS	
6	2400 BAUD, 7 BITS	
7	3600 BAUD, 7 BITS	
8	4800 BAUD, 7 BITS	
9	9600 BAUD, 7 BITS	
0	19200 BAUD, 7 BITS	

**3** PAUSE TIME

B2 (B1 A2 B1 LCD PHONE)		
KEY	TIME	CHECK-OFF
1	.5 SEC	
2	1.0 SEC	
3	1.5 SEC	
4	2.0 SEC	
5	3.0 SEC	
6	5.0 SEC	
7	7.5 SEC	
8	10.0 SEC	
9	15.0 SEC	
0	20.0 SEC	

**5b** PRINTOUT LINE LENGTH

B5 (B1 A5 B1 LCD PHONE)		
(#)	80 COLUMN, 1 LINE	
(8)	40 COLUMN, 2 LINES	

**6** INTERCOM FIRST CHOICE SIGNALLING

<input type="radio"/>	VOICE	
<input type="radio"/>	TONE	

**7** (#) CENTRAL MESSAGE DESK

(C10)-(C41)	STATION PORT ASSIGNED	
(#) (*)	NONE ASSIGNED	

**4** HOLD RECALL TIME

B3 (B1 A3 B1 LCD PHONE)		
KEY	TIME	CHECK-OFF
1	30 SEC	
2	60 SEC	
3	90 SEC	
4	120 SEC	
5	180 SEC	
6	240 SEC	
7	300 SEC	
8	360 SEC	
9	420 SEC	
0	DISABLED	

Note: 0 program selection (disabled) enables exclusive hold condition (when set at station) to place line on hold that cannot be released at any other station

**8** RECALL TIME - UNANSWERED CALL TRANSFER

B7 (B1 A7 B1 LCD PHONE)		
KEY	TIME	ENTRY
1	10 SEC	
2	30 SEC	
3	25 SEC	
4	30 SEC	
5	45 SEC	
6	60 SEC	
7	90 SEC	
8	120 SEC	
9	180 SEC	
0	240 SEC	

**9** STATION TYPE

STATION TYPE	ADJUNCT PORT		
	10	(C43) 11	(C44) 12 (C45) 13
8 LINE BLF KEYSSET	N/A		
DSS/BLF CONSOLE			

**10** STATION TYPE

STATION TYPE	STATION PORT																			
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25				
(C42) SINGLE-LINE																				
(C46) 8 LINE BLF																				
(C47) DSS/BLF CONSOLE																				
(C48) 3 AND 8 LINE																				
(C49) 22 LINE/FEATURE																				
(C10) 32-KEY CONSOLE W/O C.A.																				
(6) 32-KEY CONSOLE W C.A.																				
(7) LCD PHONE																				

STATION PORT

26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41

## TOLL RESTRICTION PROGRAMMING

In order for toll restriction to take effect, the following three-fold process must occur:

One or more toll tables must be entered.

Toll tables must be assigned to all appropriate lines.

Toll tables must be assigned to all appropriate stations

Only the toll table(s) which are entered and assigned to both a line and a station using that line will involve any toll restriction. Toll tables 1 and 2 have entries defaulted in them and these tables are assigned to all lines by default. These tables are not assigned to stations by default.

### TABLE ENTRY PROCEDURE

1. Determine the types of dialing restrictions which must be imposed on the system. Typically, this includes access codes which result in toll charges, and certain local numbers as desired.
2. If the restricted dialing codes will be imposed consistently on most or all stations in the system, list them on one or two tables. If wide variation in the dialing restrictions is planned, spread the listing out across several tables.
3. Strategically group the listings on the tables so that a list of restrictions can be applied to a particular station or group of stations.
4. Designate each table as a DENY table or as an ALLOW table. The numbers entered in a DENY table are prevented from being dialed. ALLOW tables take precedence over DENY tables. Therefore, an entry in an allow table will provide an explicit exception to an entry in a DENY table. Note that the system always permits the dialing of any number not explicitly denied. Also, system speed dial numbers will not be toll restricted unless specified by station COS programming.

**Example A:** Provide a simple and broad toll restriction format by creating a DENY table with two entries: ENTRY (1) = 1 ENTRY (2) = 0. This format prevents all long distance and operator calls.

**Example B:** Prevent the dialing of all numbers within the (804) area code, while allowing the dialing of one specific number within that area code, by entering 1804 in a DENY table and 18049782200 in an ALLOW table.

5. Enter the # character in place of a particular digit to condense a range of numbers into one entry. The # character is a "match-anything" digit, and

can be included in an entry in either a DENY table or an ALLOW table.

**Example A:** If 357, 377, 387, and 397 dialing is to be prohibited, list one entry of 3#7 on a DENY table to cover them all.

**Example B:** Since all area codes typically have a 1 or a 0 as a middle digit, prevent long distance calls to those area codes by entering 1#1# and 1#0# in a DENY table.

6. Since it is important that emergency numbers never be restricted, always create an allow table with entries of 911 and 1911 to override any DENY tables that have been created.
7. If the system is installed behind a PBX, include an access code as part of every table entry.
8. Once these tables are completely filled out, enter the restriction planning tables on the line, and station programming reference charts to record the planned toll restrictions for the system.

### TOLL RESTRICTION PROGRAMMING PROCEDURE

1. Press ITCM \* 7 4 6 \* .
2. Press program button B4 (B1, A4, B1 on LCD Speakerphone).
3. Select table.
  - Console button C10 - C25 = table 1 - 16.
4. Select table type.
  - Deny - press program button B5 (B1, A5, B1 on LCD Speakerphone).
  - Allow - press program button B6 (B1, A6, B1 on LCD Speakerphone).
5. Select table entry.
  - Program button A1 - A4 = Entry 1 - 4
6. Dial number (16 digits maximum).
  - Remember, press # for "match anything" digit.
7. Repeat steps 5 and 6 until all numbers are entered into tables.
8. Repeat steps 3 through 7 until all tables are programmed
9. Press \* MNTR (SPKR) to exit programming mode.

# TOLL RESTRICTION PROGRAMMING REFERENCE TABLES

RESTRICTION TABLE 1																
TYPE: ALLOW _____ DENY <b>X</b> _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	9	7	6													
3	4	1	1													
4	0															
TABLE ASSIGNMENT: LINES <b>ALL</b> STATIONS _____																

RESTRICTION TABLE 2																
TYPE: ALLOW <b>X</b> _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	8	0	0												
2	9	1	1													
3																
4																
TABLE ASSIGNMENT: LINES <b>ALL</b> STATIONS _____																

RESTRICTION TABLE 3																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES <b>A</b> STATIONS _____																

RESTRICTION TABLE 4																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 5																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 6																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 7																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 8																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

Toll Restriction Tables - continued

RESTRICTION TABLE 9																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 10																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 11																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 12																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 13																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 14																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 15																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 16																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

## LINE COS PROGRAMMING

### LINE DEFAULTS

Line Type = TELCO  
 Line Groups = None Assigned  
 Dial Mode = DTMF  
 Privacy Status = Private  
 Toll Tables = None Assigned  
 Abandoned Hold Timeout = 50 Msec.

### PROCEDURE

1. Press **ITCM \* 7 4 6 \***.
2. Choose line to be programmed.
  - Press **A1 - A14** = Line 1 - 14.
3. Select line type.
  - Disabled = **C46**
  - Auxiliary = **C47**
  - CO/PBX = **C48**
4. Select line group (hybrid configuration only)
  - None = **C41**
  - Group 1 = **C34**
  - Group 2 = **C35**
  - Group 3 = **C36**
  - Group 4 = **C37**
5. Select dialing mode.
  - Pulse/tone = **C26**
  - Tone only = **C27**
6. Select privacy mode
  - Private = **C28**
  - Non-private = **C29**
7. Assign toll tables.
  - Clear all assignments = **C33**.
  - Program button **C10 - C25** = tables 1 - 16
8. Set abandoned hold timeout period.
  - 300 msec. = **C42**
  - 50 msec. = **C43**
9. Repeat steps 2 - 8 for each line.
10. Press **\* MNTR (SPKR)** to exit programming.

# LINE COS PROGRAMMING REFERENCE TABLE

- Shading denotes line default conditions.
- Check off values chosen for lines being programmed

BASE LEVEL (TCM) \* 7 4 6 \*

LINE PROGRAMMING MODE (A1) - (A14)

PROGRAMMED FEATURE		LINE NUMBER													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
3	SELECT	(C46) DISABLED													
	LINE	(C47) AUXILIARY													
	TYPE	(C48) CO/PBX													
4	LINE GROUPS	(C34) GROUP 1													
		(C35) GROUP 2													
		(C36) GROUP 3													
		(C37) GROUP 4													
		(C41) NONE ASSIGNED													
5	DIAL MODE	(C26) PULSE/TONE													
		(C27) TONE ONLY													
6	PRIVACY MODE	(C29) NON-PRIVATE													
		(C28) PRIVATE													
7	TOLL RESTRICTION TABLE ASSIGNMENT	(C10) 1													
		(C11) 2													
		(C12) 3													
		(C13) 4													
		(C14) 5													
		(C15) 6													
		(C16) 7													
		(C17) 8													
		(C18) 9													
		(C19) 10													
		(C20) 11													
		(C21) 12													
		(C22) 13													
		(C23) 14													
		(C24) 15													
		(C25) 16													
		(C33) NONE													
8	ABANDONED	(C42) 300 MSEC													
	HOLD TIMEOUT	(C43) 60 MSEC													

CO/PBX NUMBERS AND STATION ASSIGNMENTS

\* Power Fail Lines (1, 2, and 3)  
 \*\* A-Lead Control Lines (7 and 8)



## STATION COS PROGRAMMING

### STATION DEFAULTS

PA Port = Disabled  
 Executive Override = Disabled  
 Ringing Line Preference = Disabled  
 Prime Line/group = None  
 Personal Ringing Tone = Tone 1  
 Single Line Keypad Accesses Intercom  
 -Ringing Assignment = All Lines Ring on Stations 10,  
 17, 39, And 41  
 Line Access Denied = None  
 Toll Tables = None Assigned  
 Origination Denied = None  
 Idle Line Preference = None  
 Night Transfer = All Lines Ring On Stations 10,  
 17, 39 And 41  
 All-Call Receive = Enabled  
 All-Call Originate = Enabled  
 Reserved Intercom Link = None  
 Zone Page Receive = Disabled  
 Zone Page Originate = Disabled  
 Message Originate = Disabled  
 Automatic Hold = Disabled  
 System Speed Dial Toll Restriction = Disabled  
 Voice Announce Block = Disabled  
 Privacy Status = Private  
 Line/Button Assignment (Button Mapping):  
 3 And 8 Line Keypad:  
 - B-Field Buttons: B1 - B8 = Lines 1 - 8  
 22 Line/feature Keypad  
 - A-Field Buttons: A1 - A14 = Lines 1 - 14  
 - B-Field Buttons: B1 - B8 = Autodial Locations

### PROCEDURE

Perform all steps in sequence.

Skip those steps not required.

1. Press **ITCM \* 7 4 6 \***.
2. Press program button **B8 (B1, A8, B1 on LCD Speakerphone)**.
3. Specify station to be programmed, then perform applicable steps.
  - Press **C10 - C41** for station port 10 to 41
  - If desired, press **TRANS/CONF** to default following settings.
    - PA port = disabled
    - Prime line/group = none
    - Voice announce block = disabled
    - Executive override = disabled
    - Message originate = disabled
    - Automatic hold = disabled
    - System speed dial toll restriction = disabled

4. Enable PA port if desired.
  - Press keypad button 1

*NOTE: If a selected station port is programmed to be a PA port, per step 4, do not perform any further programming for this selected station port. Instead, return to step 3 to program another station port or press \* MNTR (SPKR) to end programming.*

5. Block voice announced intercom calls
  - Press keypad button 2.
6. Enable executive override.
  - Press keypad button 3.
7. Enable toll table restriction on system speed dial numbers.
  - Press keypad button 4.
8. Choose personal ringing tones (22 Line/Feature Keysets).
  - TONE 1 = keypad button 7
  - TONE 2 = keypad button 8
  - TONE 3 = keypad button 9
  - TONE 4 = keypad button 0
9. Set automatic hold.
  - Press keypad button 5.
10. Enable message wait originate.
  - Press keypad button 6.
11. Select prime line, prime group or prime intercom.
  - **A1 - A14** = line 1 - 14.
  - OR-
  - **HOLD HOLD** = group 1.
    - B1 (B1, A1, B1 on LCD Speakerphone)  
= group 2
    - B2 (B1, A2, B1 on LCD Speakerphone)  
= group 3
    - B3 (B1, A3, B1 on LCD Speakerphone)  
= group 4
  - OR-
  - **ITCM** = intercom

## 12. Set ringing line preference.

- B5 (B1, A5, B1 on LCD Speakerphone)  
= enabled
- B4 (B1, A4, B1 on LCD Speakerphone)  
= disabled

## 13. Select ringing assignments

**RINGING**

- Press program button C42 (clears previous settings).
- Choose lines: A1 - A14 = lines 1 - 14

**DELETED RINGING**

- Press program button C43 (clears previous settings).
- Choose lines: A1 - A14 = lines 1 - 14

## 14. Select Night Transfer (ringing)

- Press program button C44 (clears previous settings).
- Choose lines: A1 - A14 = lines 1 - 14

## 15. Select automatic privacy release.

- Press program button C45 (clears previous settings).
- Choose lines: A1 - A14 = lines 1 - 14

## 16. Select access denied.

- Press program button C46 (clears previous settings).
- Choose lines: A1 - A14 = lines 1 - 14

## 17. Select call origination denied.

- Press program button C47 (clears previous settings).
- Choose lines: A1 - A14 = lines 1 - 14

## 18. Select idle line preference.

- Press program button C48 (clears previous settings).
- Choose lines: A1 - A14 = lines 1 - 14

## 19. Assign toll tables to station.

- Press program button C49 (clears previous assignments).
- Specify toll tables to be assigned.  
A1 - A14 = tables 1 - 14  
B4 = table 15  
B5 = table 16.

## 20. Reserve intercom link.

- Press #.
- Press keypad button 1 - 7 to reserve link 1-7.  
-OR-
- Press 0 key for no reserved link.
- Press console key C42 to continue with next programming step.

## 21. Select all-call and/or zone paging.

- Press #
- Press TAP to disable all paging assignments (if desired).

**ALL-CALL**

- Press program button A4 to originate.
- Press program button A8 to receive.
- Press console button C42 to continue with next programming step.

**ZONES A, B, AND C**

- Press #
- Select zones.
- A1 - A3 = originate zones A - C
- A5 - A7 = receive zones A - C
- Press console button C42 to continue with next programming step.

NOTE C42 = HOLD-TO-LOCK

22. Specify flexible button/function assignment  
(non-square configuration)

**3 AND 8 LINE KEYSER LINE ASSIGNMENT**

- a. Press program button B6 (B1, A6, B1 on LCD Speakerphone).
- b. Select button to be programmed.  
B1 - B8 (B1, A1 - A8, B1 on LCD Speakerphone).
- c. Select line: A1 - A14 = lines 1 - 14  
-OR-  
Press TAP button to disable line appearance.
- d. Repeat steps a - c for each line assigned, then go to step 23.

\* **22 LINE/FEATURE KEYSER LINE ASSIGNMENT**

- a. Press program button B6 (B1, A6, B1 on LCD Speakerphone).
- b. Select button A1 - A14  
-OR-  
B1 - B8 (B1, A1 - A8, B1 on LCD Speakerphone).
- c. Select line: A1 - A14 = lines 1 - 14  
-OR-  
Press TAP button to disable line appearance.
- d. Repeat steps b and c for each line assigned.
- e. Go to step 23.  
-OR-

Repeat step b to select button for DSS or autodial assignment.

**22 LINE/FEATURE KEYSER DSS ASSIGNMENT**

- a. Press program button B6 (B1, A6, B1 on LCD Speakerphone).
- b. Select button: A1 - A14  
-OR-  
B1 - B8 (B1, A1 - A8, B1 on LCD Speakerphone).

- c. Choose station port to be assigned to key  
C10 - C41 = station ports 10 - 41
- d. Repeat steps b and c for all buttons requiring DSS assignment.
- e. Go to step 23.

-OR-

Repeat step b to select button for line or autodial assignment.

**22 LINE/FEATURE KEYSER  
AUTODIAL AND DYNAMIC  
LINE BUTTON ASSIGNMENT**

- a. Press program button B6 (B1, A6, B1 on LCD Speakerphone).
  - b. Select button: A1 - A14  
-OR-  
B1 - B8 (B1, A1 - A8, B1 on LCD Speakerphone).
- NOTE: B1 - B3 (B1, A1 - A3, B1 on LCD Speakerphone) = Dynamic Line Buttons.**
- c. Press TAP button.
  - d. Repeat steps b and c for all buttons requiring autodial capability.
  - e. Go to step 23.  
-OR-

Repeat step b to select button for DSS or line assignment.

23. Press \* and repeat from step 3 to choose next station port for programming.  
-OR-

Press \* MNTR (SPKR) to end programming.

## BLOCK PROGRAMMING

A group of stations can be programmed with the same COS as a previously programmed station.

1. Press ITCM \* 7 4 6 \*
1. Press HOLD HOLD.
2. Specify model station port.
  - C10 - C41 = station port 10 - 41.
3. Specify first station port.
  - C10 - C41 = station port 10 - 41.
4. Specify last station port.
  - C10 - C41 = station port 10 - 41.

*NOTE: Flexible button/function assignments for station port 10 or 11 cannot be changed by block programming.*

5. Press \* MNTR (SPKR) to end programming.

## THROUGH-DIALING WITH AN OPX BOX

When enabled, this feature inhibits the common equipment from sending DTMF tones on the CO line if the device attached to the OPX Box (such as an industry-standard model 2500 telephone set) is capable of this function.

When disabled, this feature allows the KSU to send DTMF tones on the CO line if the device attached to the OPX Box (such as a rotary dial telephone set) is not capable of this function. The system is defaulted to disable this feature.

To program station port to be occupied by OPX Box,

1. Press ITCM \* 7 4 6 \*.
2. Select station port for OPX Box use.
  - C12 - C41 = station port 12 - 41
3. Press C42.
4. Press \*.
5. Press B8 (B1, A8, B1 on LCD Speakerphone)
6. Select OPX Box port (same port as selected in step 2).
7. Choose OPX through-dialing mode.
  - TAP = enabled
  - B7 (B1, A7, B1 on LCD Speakerphone) = disabled
8. Press \* MNTR (SPKR) to end programming.

## HUNT GROUP PROGRAMMING

Station ports can be assigned to intercom hunt groups. When a station assigned to a hunt group is busy, a call to it will ring at the next idle station in the group. Typical hunt groups operate as follows:

### TERMINAL HUNTING

Assume that a terminal hunt group is formed as follows:

- Station port 013 is linked to station port 014
- Station port 014 is linked to station port 015
- Station port 015 is linked to station port 016.

If station port 013 and 014 are busy when an intercom call is directed to station port 013, that call will ring at station port 015 because it is the first idle port in the group. If port 015 is also busy, the call will ring at station port 016. If port 016 is also busy, the call will sound a busy tone at the calling station.

In the above example, the group is open-ended or terminal. A call will be routed down the group from the busy station port. If it reaches the end of the group without encountering an idle station, it will stop.

A particular station can be linked at the end of more than one hunt group so long as the sixteen station ports per group are not exceeded. For instance, a second terminal hunt group could be formed along with the example shown above:

Station port 020 is linked to station port 021

Station port 021 is linked to station port 022

Station port 022 is linked to station port 016.

Thus, station port 016 would serve in both terminal hunt groups although the groups are independent otherwise. Other terminal hunt groups could also be formed with station port 016 as the last station in the group.

### CIRCULAR HUNTING

A hunt group can be made circular by linking the last port in the group with the first port in the group. From the first example given above, a circular hunt group could be formed as follows:

- Station port 013 is linked to station port 014
- Station port 014 is linked to station port 015
- Station port 015 is linked to station port 016
- Station port 016 is linked to station port 013.

In a circular hunt group, a call will search around the group until it encounters an idle station port or until all stations in the group, up to a maximum of sixteen, are searched.

### HUNT GROUP GUIDE LINES

In forming intercom hunt groups, the following guide lines apply:

- A minimum of two stations ports can form one hunt group.
- A maximum of sixteen station ports can be placed in one hunt group.
- Multiple hunt groups can be formed.
- The call forwarding feature is disabled for all but the last station port assigned to a hunt group.
- The maximum number of hunt groups that can be formed is determined by the number of stations available and the sixteen station per group limitation.
- A station port can have only one other station port added to it but it can be added to the end of any number of station ports. In this case, it adds to the count in each hunt group that it is added to. See example 1 (page 4-15)..
- A station port can be the first or intermediate port in only one hunt group. See examples 2 and 3 (page 4-15).

### PROGRAMMING

To program two station ports into a hunt group,

1. Press ITCM \* 7 4 6 \*.
  2. Press B8 (B1, A8, B1 on LCD Speakerphone).
  3. Choose first station port in link:
    - C10 - C41 = station port 10 - 41.
  4. Press B8 (B1, A8, B1 on LCD Speakerphone).
  5. Choose second station port in link:
    - C10 - C41 = station port 10 - 41.
  6. Press TAP.
  7. Press \* and repeat steps 2 - 6 for next hunt group.
- OR-
- Press \* MNTR (SPKR) to end.

To add additional station ports to a hunt group (16 maximum) or to link the last station to the first to form a circular group,

1. Press ITCM \* 7 4 6 \*.
2. Press B8 (B1, A8, B1 on LCD Speakerphone).
3. Select last station port in link:
  - C10 - C41 = station port 10 - 41.
4. Press B8 (B1, A8, B1 on LCD Speakerphone).

5. Choose next station port in link. (Choose first station port in link if circular link is desired.)

- C10 - C41 = station port 10 - 41.

6. Press TAP.

7. Press \* and repeat steps 2 - 6 until all station ports are linked as desired.

-OR-

Press \* MNTR (SPKR) to end.

To clear a hunt group link,

1. Press ITCM \* 7 4 6 \*.

2. Press B8 (B1, A8, B1 on LCD Speakerphone).

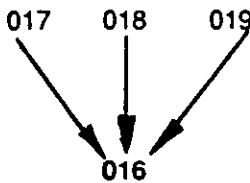
3. Select station port to be unlinked.

- C10 - C41 = station port 10 - 41.

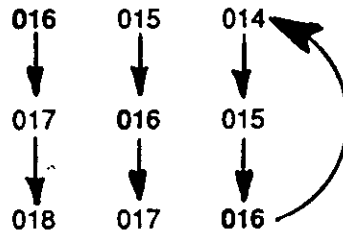
4. Press B8 (B1, A8, B1 on LCD Speakerphone).

5. Press \* MNTR (SPKR) to end.

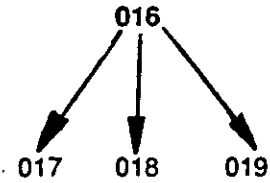
**EXAMPLE 1**  
(proper link)



**EXAMPLE 2**  
(proper links)



**EXAMPLE 3**  
(improper link)



*Handwritten note:* H/2020 5:04

# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  (7)  (4)  (6)  (\*)

STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	15
STA. TYPE	LC1
EXTENTION	15
LOCATION	

4

PA PORT	<input checked="" type="checkbox"/> DISABLED
<input type="checkbox"/> ENABLED	

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK		
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE		
7 <input checked="" type="checkbox"/> SYS SPEED TOLL		
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD		
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG		

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
<input checked="" type="checkbox"/> 7	<input checked="" type="checkbox"/> 8	<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 0

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	B1	B2	B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING															
<input checked="" type="checkbox"/> DELAYED RINGING															
<input checked="" type="checkbox"/> NIGHT RINGING															

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL															
<input checked="" type="checkbox"/> ACCESS DENIED															
<input checked="" type="checkbox"/> ORIG DENIED															
<input checked="" type="checkbox"/> IDLE LINE PEF															

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

* ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/> LINE ASSIGNED																							
<input checked="" type="checkbox"/> DSS STA ASSIGNED																							
<input checked="" type="checkbox"/> AUTO DIAL ASSIGNED																							
<input checked="" type="checkbox"/> DISABLED																							
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

## COS AND SMDR PRINTOUT

### COS PRINTOUT

When a data printer is connected to the system, it can be commanded, from the programming station, to print the class of service (COS) programming configuration. Partial or complete printouts can be obtained. When the printer is being used to obtain a COS printout, the Station Message Detail recording (SMDR) function is temporarily halted. SMDR data collection is continued by the system during a COS printout operation; however, if more than two calls are logged for any one line, call records may be lost.

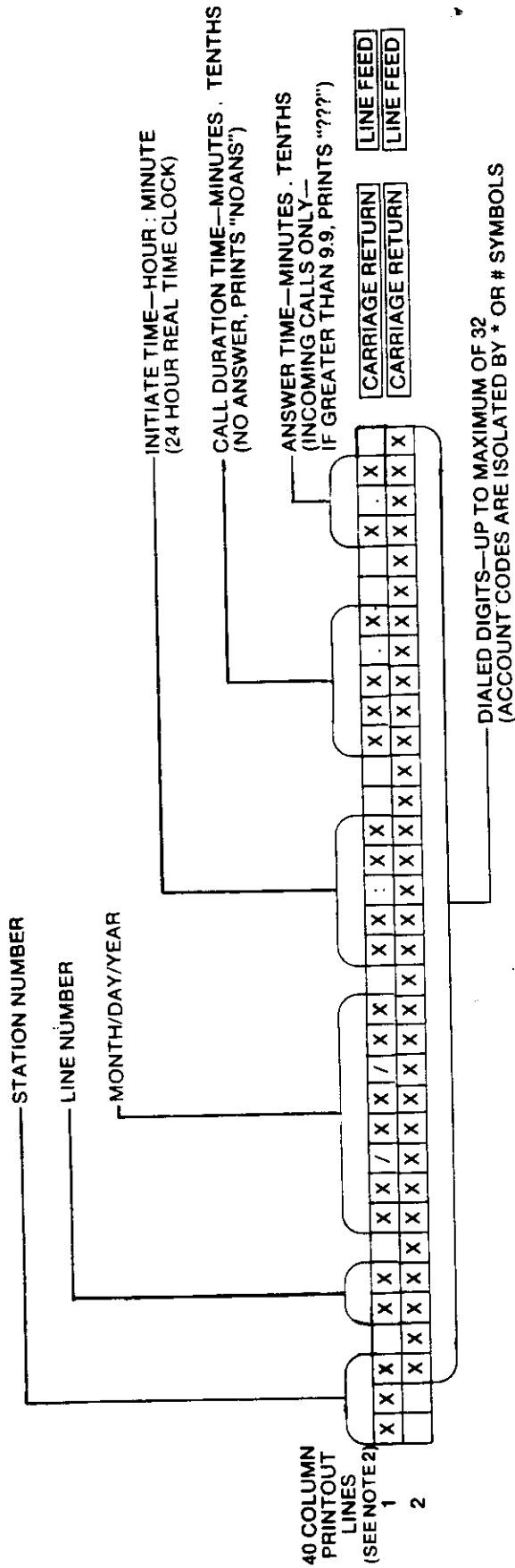
1. Press ITCM \* 7 4 6 \*.
  2. Press program button **B6 (B1, A6, B1 on LCD Speakerphone)**.
  3. Choose desired data printout. Printing begins immediately after choice is made.
- **B4 (B1, A4, B1 on LCD Speakerphone)** = All COS data
  - **B5 (B1, A5, B1 on LCD Speakerphone)** = System COS data

- **B6 (B1, A6, B1 on LCD Speakerphone)** = Line COS data
  - **B7 (B1, A7, B1 on LCD Speakerphone)** = Toll Table data
  - **B8 (B1, A8, B1 on LCD Speakerphone)** = All station COS data
  - **C10 - C41** = COS data for station 10 - 41
4. If desired, stop printout by pressing **B3 (B1, A3, B1 on LCD Speakerphone)**.
  5. Press \* **MNTR (SPKR)** to end.

### SMDR PRINTOUT

The SMDR printout data is provided automatically as it is generated. No intervention is required to obtain the printout. The data is formatted as shown in Figure 3-1. One 80-column printout is provided.





NOTES

1. CARRIAGE RETURN AND LINE FEED IMMEDIATELY FOLLOW LAST PRINTED CHARACTER ON EACH LINE. ALSO SEE NOTE 2
2. ILLUSTRATED PRINTOUT IS 40 COLUMN, TWO-LINE FORMAT. ON 80 COLUMN ONE-LINE PRINTOUT FORMAT, CARRIAGE RETURN AND LINE FEED CHARACTERS AT END OF LINE 1 ARE REPLACED BY TWO SPACES FOLLOWED BY ENTIRE CONTENTS OF LINE 2.
3. OUTGOING CALL MUST BE OFF-HOOK FOR 20 SECONDS MINIMUM OR NO RECORDING OCCURS.

PRINTOUT EXAMPLES	
UNANSWERED INCOMING CALL	1 12/05/86 16:51 NOANS 0.6
ANSWERED INCOMING CALL	16 1 12/05/86 16:52 1.6 0.2
ANSWERED INCOMING CALL (WITH CALLER ID ADDED BY STATION DURING CALL)	24 1 12/05/86 16:53 1.2 0.2 **1234
OUTGOING CALL (LOCAL)	16 2 12/05/86 16:58 2.0 9782200
OUTGOING CALL (WITH ACCOUNT CODES)	24 2 12/05/86 17:01 .5 11233456789*0#*7412580#9631*#
AC POWER FAILURE AND RESTORATION	OFF TIME ** 12/05/86 17:03 ** 12/05/86 17:08

Figure 3-1. SMDR Printout Details

## CASSETTE TAPE RECORD OF COS VALUES

### GENERAL INFORMATION

- Connect the audio cassette tape recorder microphone connector to the music interface jack on the side of the KSU.
- Do not perform any other programming action while the tape system is active.
- Program the baud rate of the tape data to be either 100 or 50 baud as desired. (See System COS for programming details.)
- If the system includes a data printer, appropriate response and error messages will be printed during the recording and loading of COS data.
- When COS data is sent from the KSU to an audio cassette tape recorder for recording, a lead-in tone is sent prior to the data. During play-back, this lead-in tone alerts the system to receive the class of service data.
- When playing back the stored class of service data, the tape must be started during the lead-in tone. If it is not, the system will reject the recorded class of service data.
- To insure a successful load, comparison, or verification of recorded class of service data, always start the tape during the lead-in tone. The following precautions will insure that this is done.

Before playing back pre-recorded class of service data, perform the following actions:

- Rewind the tape to the beginning.
- Disconnect the cable connecting the recorder and the KSU.
- Set the play-back volume for approximately one-half of maximum.
- Play the tape and listen to the lead-in tone. Verify that it is not distorted.
- Rewind the tape to the point where the lead-in tone begins.
- Connect the cable between the KSU and the tape recorder.

- Program the system to accept pre-recorded class of service data.
- Start the tape (from the point where the lead-in tone was first heard).

If the load is unsuccessful, repeat the load procedure with the play-back volume set for approximately two-thirds of maximum.

### RECORDING COS DATA TO TAPE

To record currently stored COS program values on cassette tape for later use,

1. Install blank cassette tape, and prepare recorder for recording.
2. Cause recorder to begin recording blank cassette tape from beginning.
3. Press ITCM \* 7 4 6 \* .
4. Press ITCM B8 (ITCM B1, A8, B1 on LCD Speakerphone) to start recording process. COS recording requires approximately 12 minutes. Programming station will ring when recording is complete.

To abort recording procedure (if required),

1. Press ITCM \* 7 4 6 \* .
2. Press ITCM B8 (ITCM B1, A8, B1 on LCD Speakerphone).

### LOADING COS DATA FROM TAPE

To load previously recorded COS program values into system to replace current program values, proceed as follows:

1. Install pre-recorded cassette tape, and prepare recorder for playback.
2. Press ITCM \* 7 4 6 \* .
3. Press ITCM HOLD HOLD to load COS features.
4. Start tape playback. COS loading requires approximately 10 minutes. Programming station will ring when loading is complete.

To abort playback procedure (if required),

1. Press ITCM \* 7 4 6 \* .
2. Press ITCM B8 (ITCM B1, A8, B1 on LCD Speakerphone).

## SYSTEM CLOCK INFORMATION

All clock setting and adjustment must be performed from station port 10 or 11.

### SETTING THE CLOCK

1. Press ITCM, then dial \* #.
2. Dial the clock date with the keypad.
  - Hours must be expressed in 24-hour format
  - Values less than 10 must be expressed as 0x
  - Date sequence = YEAR, MONTH, DAY, HOUR, MINUTE in two-character format.  
For Example: 9004010244
3. If the SMDR printer is installed and operating, the clock date will be printed as per the following example:  
- 01/08/86 16:00
4. Reset the minutes setting, if necessary, as follows:
  - (a) Repeat step 1.
  - (b) Dial the new minutes digits, and press the # button.
  - (c) A new clock date printing will occur.

5. To obtain a printing of the current clock date, press ITCM \* # #. Printing will occur automatically once each 24-hour period in the following format:  
MO/DY/YR 00:00 (current date and 00:00 hours)

### POWER INTERRUPTION

The system clock will continue to run for at least 30 minutes after AC power has been removed from the system. If power is restored within the 30-minute backup period, the following printing sequence will occur:

- LAST VALID CLOCK = MO/DY/YR HR:MN (time of power outage) MO/DY/YR HR:MN (time of power return)
- If power is not restored within the backup period, the following printing sequence will occur when the power is restored.
- CLOCK NOT VALID = 12/01/86 00:00 (default clock date) The clock will begin running from the default date. It must be reset to the current date per the instructions above.

## SYSTEM SPEED DIAL PROGRAMMING

Fifty (50) system speed dial numbers can be stored from station port 10 or 11 for use at all stations in the system. System speed dial numbers will not be toll restricted unless specified by station COS programming. A chart is provided on page 4-21 to be used for recording the stored numbers

1. Press ITCM \*.
2. Press TRANS/CONF.
3. Dial storage location (10 - 59)
4. Choose line or group preselection (multifunction (hybrid) system only).
  - Dial 1 - 4 for group.  
-OR-
  - Press a line button for line.  
-OR-
  - Dial 0 for no group or line preselection.

*NOTE: The button-to-line assignment is per programming arrangement. Refer to the station COS programming reference chart for the button-to-line assignment of the programming station.*

5. Dial speed dial number (up to 32 digits).
  - Dial 1 - 0, #, and \* as required.
  - If required, press HOLD to store pause.
  - If required, press TAP to store hookflash.
6. Press TRANS/CONF and repeat steps 3 - 5 for each number.  
-OR-  
Press MNTR (SPKR) to end procedure.

**SYSTEM SPEED DIAL INDEX**

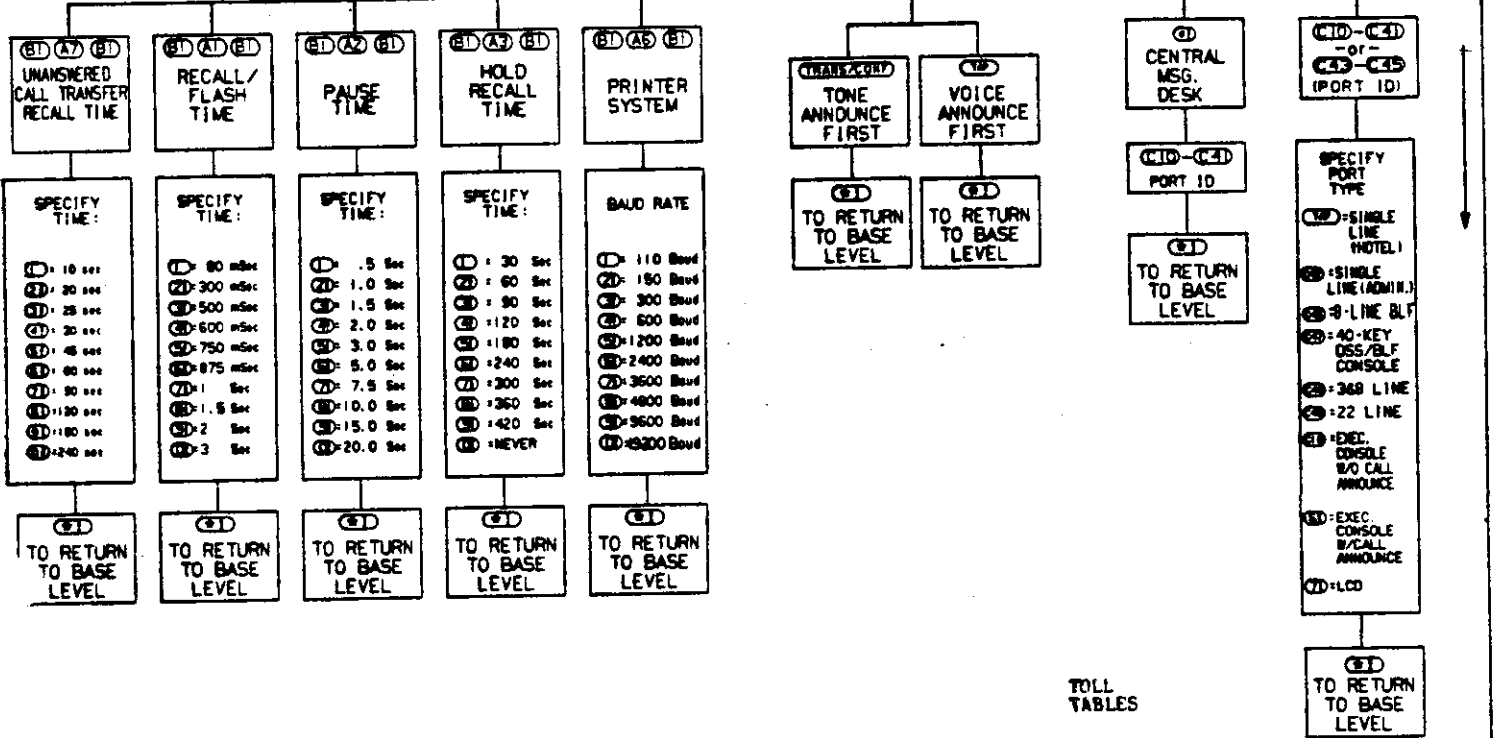
<b>SYSTEM SPEED DIAL RECORD</b>			
<b>LOC</b>	<b>NUMBER</b>	<b>LOC</b>	<b>NUMBER</b>
01		31	
02		32	
03		33	
04		34	
05		35	
06		36	
07		37	
08		38	
09		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16		46	
17		47	
18		48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	
30			

# Programming Reference Chart A (For Station 10 Programming With An LCD Speakerphone)

LCD SPEAKERPHONE  
PROGRAMMING CHART (SHEET 1)  
MODEL 1492B HYBRID/KEY SYSTEM  
(REVISION Fxx90 AND ABOVE)

PROGRAM ENTRY  
BASE LEVEL

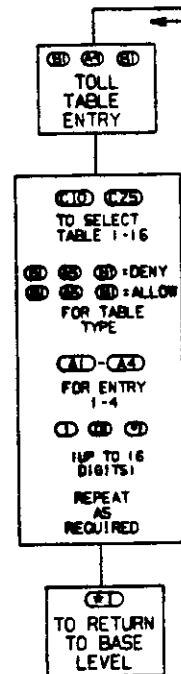
SYSTEM COS



ALTERNATE PROGRAMMING KEYS	
40-KEY CONSOLE PROGRAM KEYS	ALTERNATE RETRY PROGRAM KEYS WHEN 32-KEY CONSOLE IS EQUIPPED
C42	HOLD.1
C43	HOLD.2
C44	HOLD.3
C45	HOLD.4
C46	HOLD.5
C47	HOLD.6
C48	HOLD.7
C49	HOLD.8

LINE TO PROGRAM KEY SELECTION CHART			
LINE	KEY	LINE	KEY
1	A1	9	A9
2	A2	10	A10
3	A3	11	A11
4	A4	12	A12
5	A5	13	A13
6	A6	14	A14
7	A7		
8	A8		

TOLL TABLES

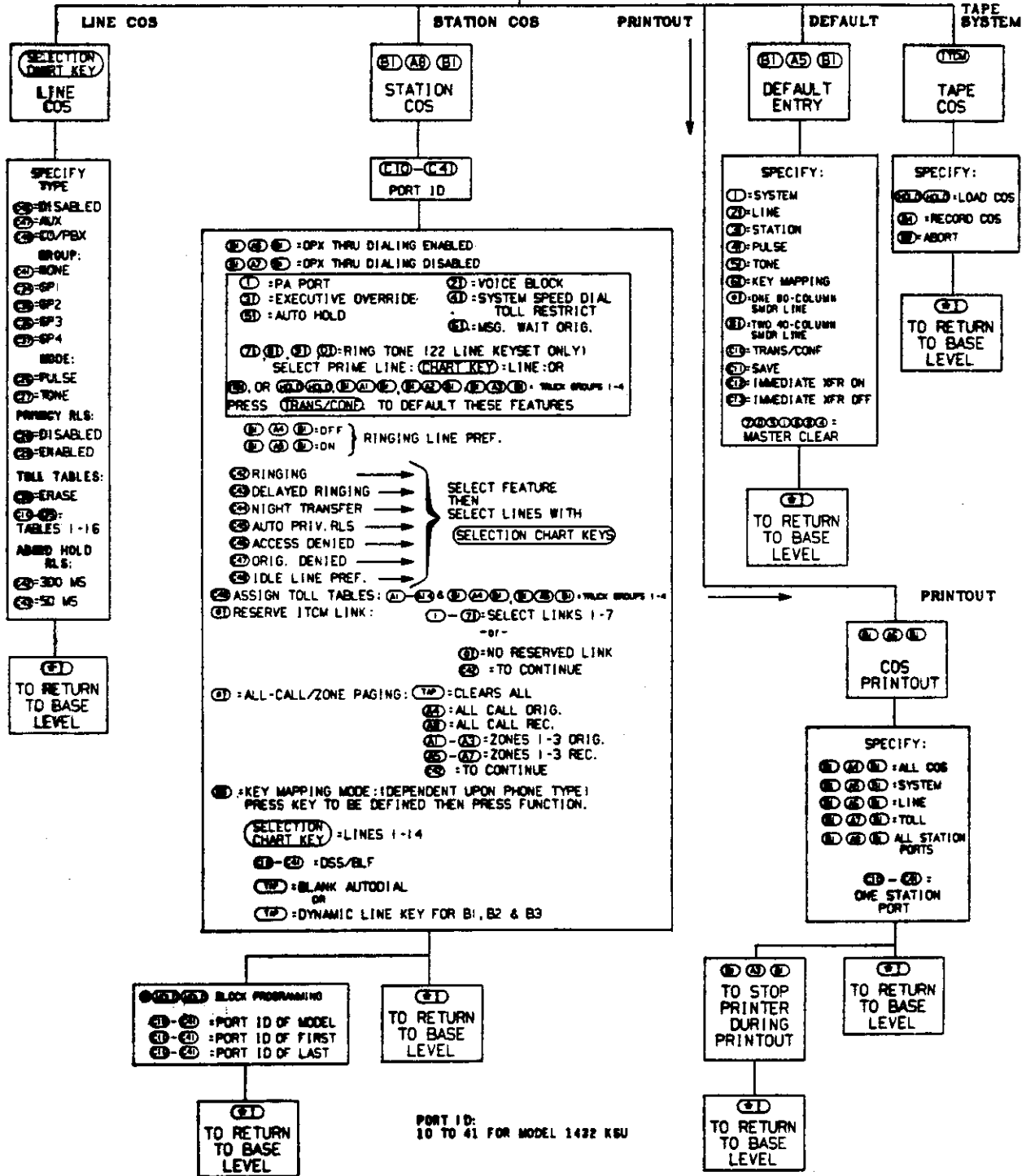


Program Reference Chart A - Continued

LCD SPEAKERPHONE  
PROGRAMMING CHART (SHEET 2)  
MODEL 1432B HYBRID/KEY SYSTEM  
(REVISION Fxx90 AND ABOVE)

PROGRAM ENTRY  
BASE LEVEL

*Hold 1-8*



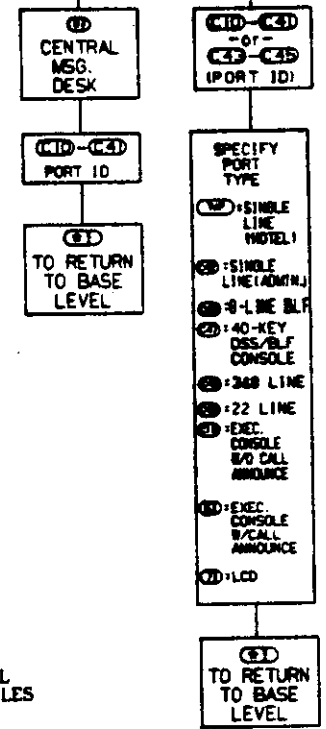
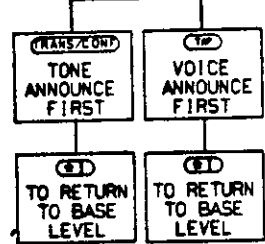
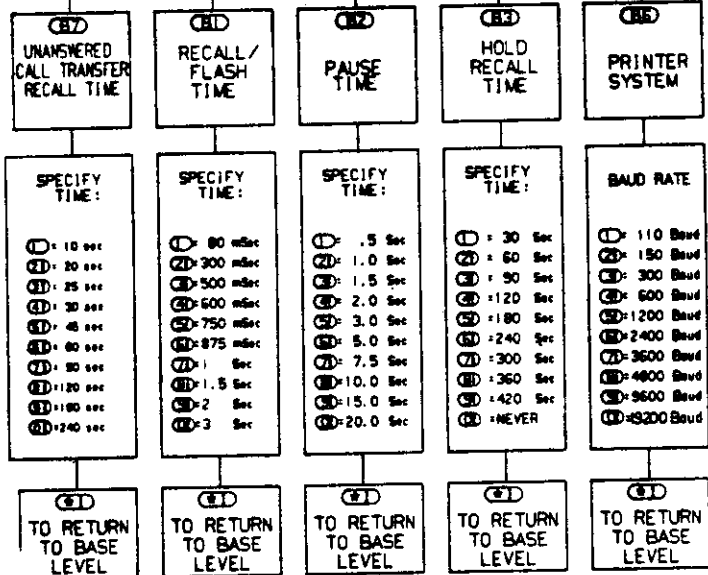
# Programming Reference Chart B (For Station 11 Programming With A 22 Line/Feature Keyset)

22 LINE/FEATURE KEYSET  
PROGRAMMING CHART (SHEET 1)  
MODEL 1492B HYBRID/KEY SYSTEM  
(REVISION Fxx90 AND ABOVE)

(17) (18) (19) (20) (21) (22)  
BASE LEVEL

PROGRAM ENTRY

SYSTEM COS

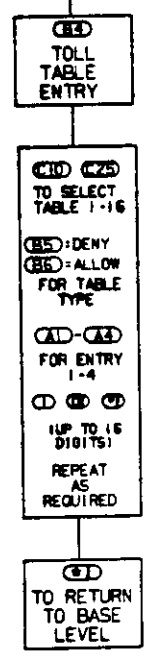


TOLL TABLES

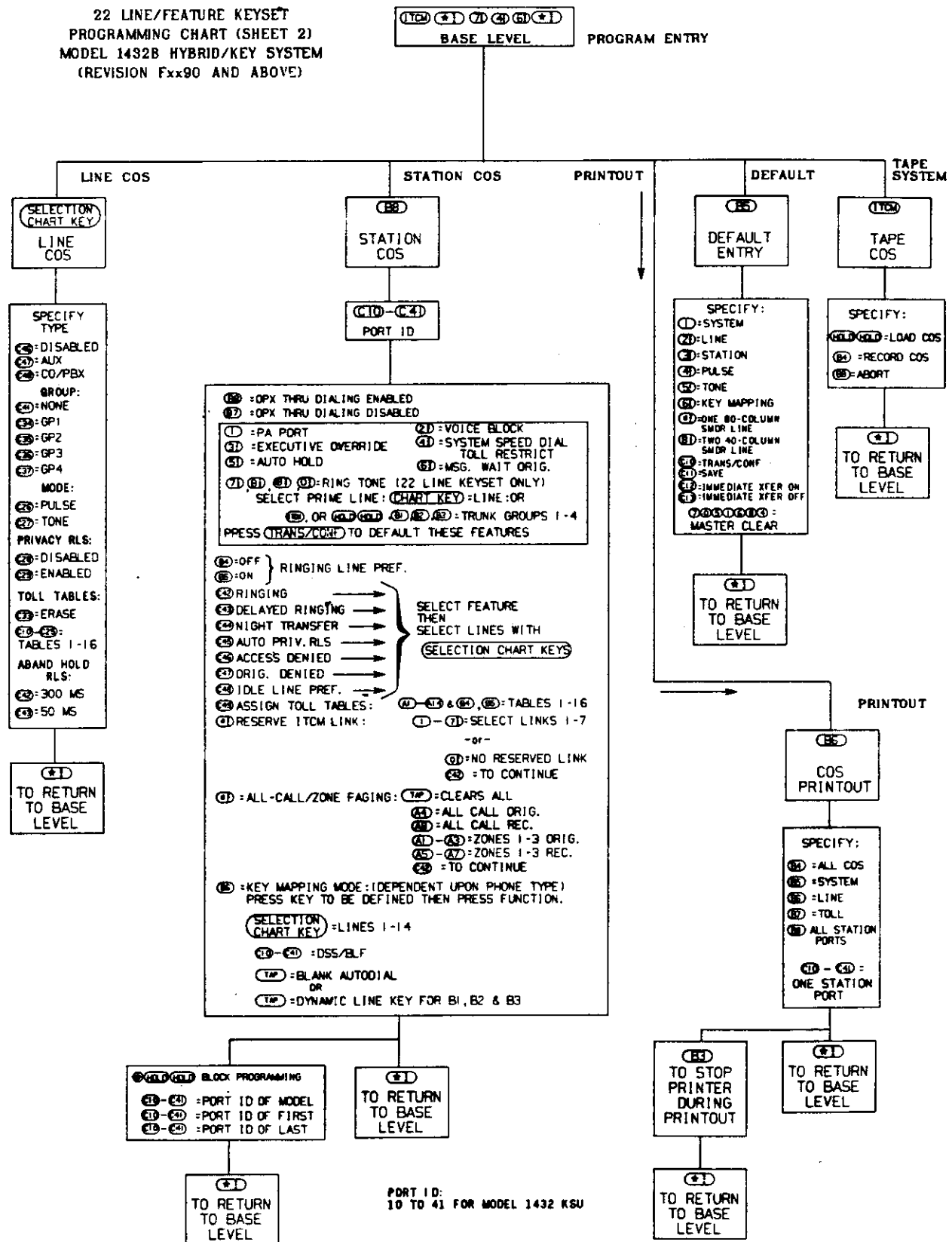
ALTERNATE PROGRAMMING KEYS	
40-KEY CONSOLE PROGRAM KEYS	ALTERNATE KEYS/PROGRAM KEYS WHEN 32-KEY CONSOLE IS EQUIPPED
C42	HOLD.1
C43	HOLD.2
C44	HOLD.3
C45	HOLD.4
C46	HOLD.5
C47	HOLD.6
C48	HOLD.7
C49	HOLD.8

LINE TO PROGRAM KEY SELECTION CHART			
LINE	KEY	LINE	KEY
1	A1	9	A9
2	A2	10	A10
3	A3	11	A11
4	A4	12	A12
5	A5	13	A13
6	A6	14	A14
7	A7		
8	A8		

Handwritten notes: "S/T" and "1/17"



Program Reference Chart B - Continued

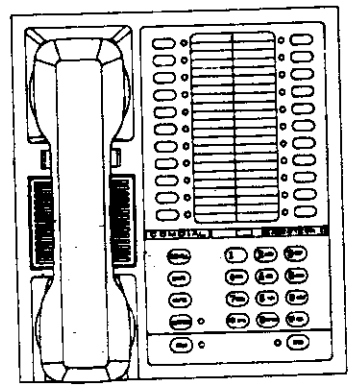
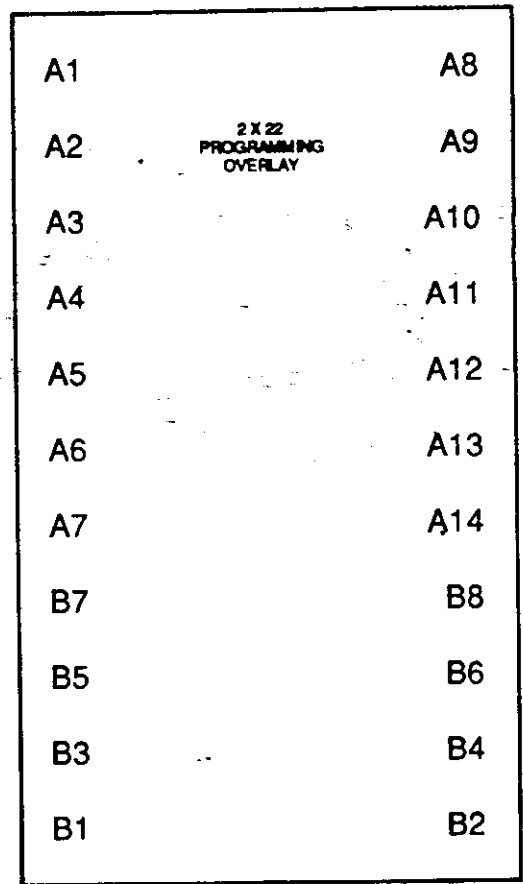




# STATION 10 - PROGRAMMING OVERLAY

For SAUMANN.

- Cut out along border.
- Cut out shaded openings.
- Fit over station faceplate.





# CONSOLE - PROGRAMMING OVERLAY

- Cut out along border.
- Cut out shaded openings.
- Fit over console faceplate.

## EXECUTECH PROGRAMMING OVERLAY

703804-276

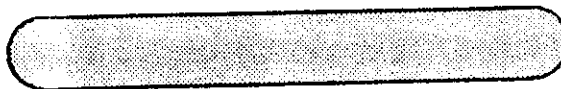
C42 C43 C44 C45 C46 C47 C48 C49



C34 C35 C36 C37 C38 C39 C40 C41



C26 C27 C28 C29 C30 C31 C32 C33



C18 C19 C20 C21 C22 C23 C24 C25



C10 C11 C12 C13 C14 C15 C16 C17



BOB Kinsey

BOB 2100 8/18/00

Group Contact

131 224 0900

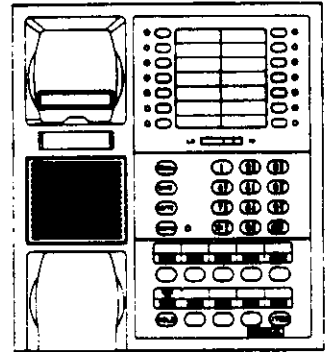
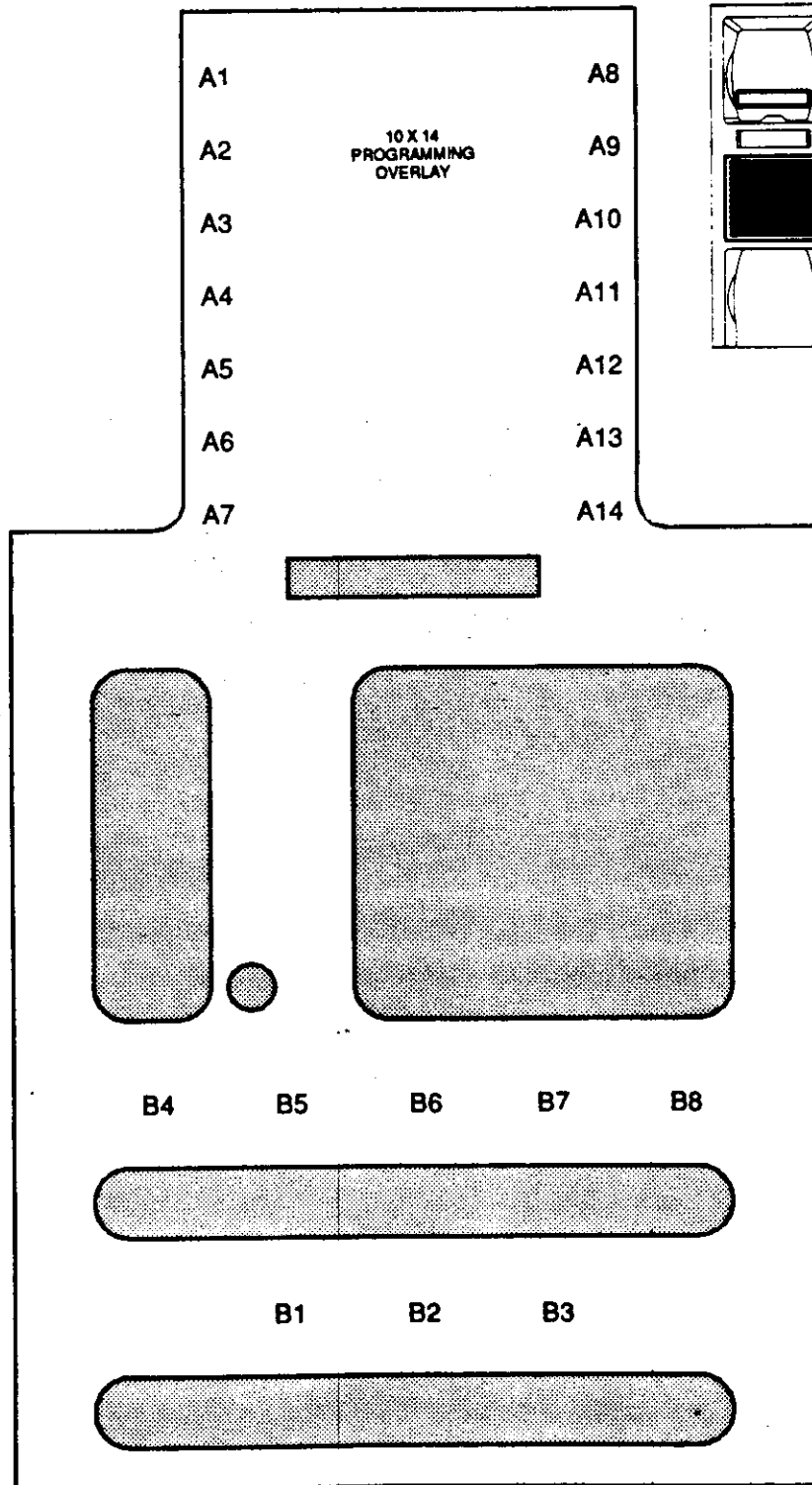
131 224 0900

131 224 0900

131 224 0900

# STATION 10 - PROGRAMMING OVERLAY

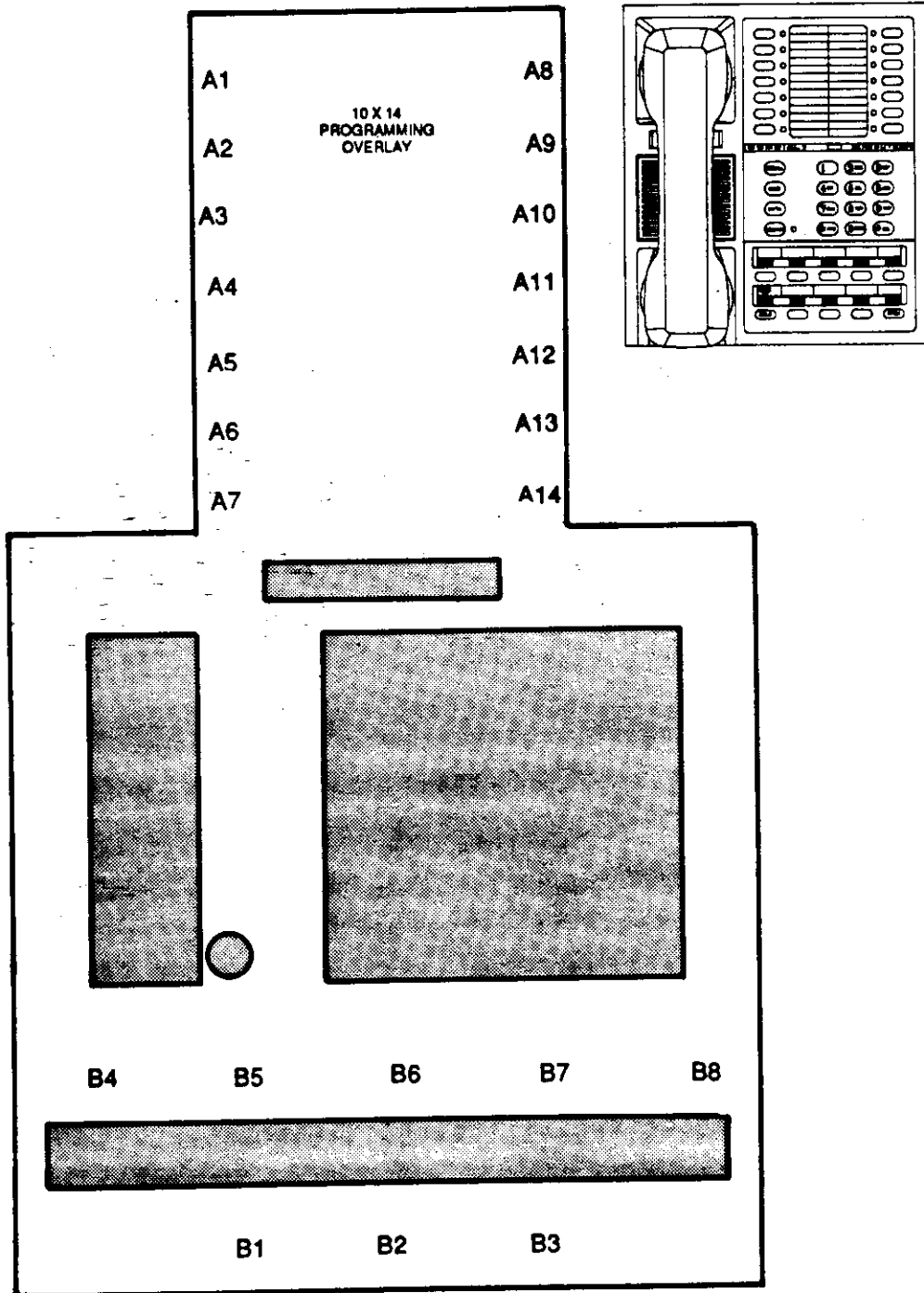
- Cut out along border.
- Cut out shaded openings.
- Fit over station faceplate.





# STATION 10 - PROGRAMMING OVERLAY

- Cut out along border.
- Cut out shaded openings.
- Fit over station faceplate.

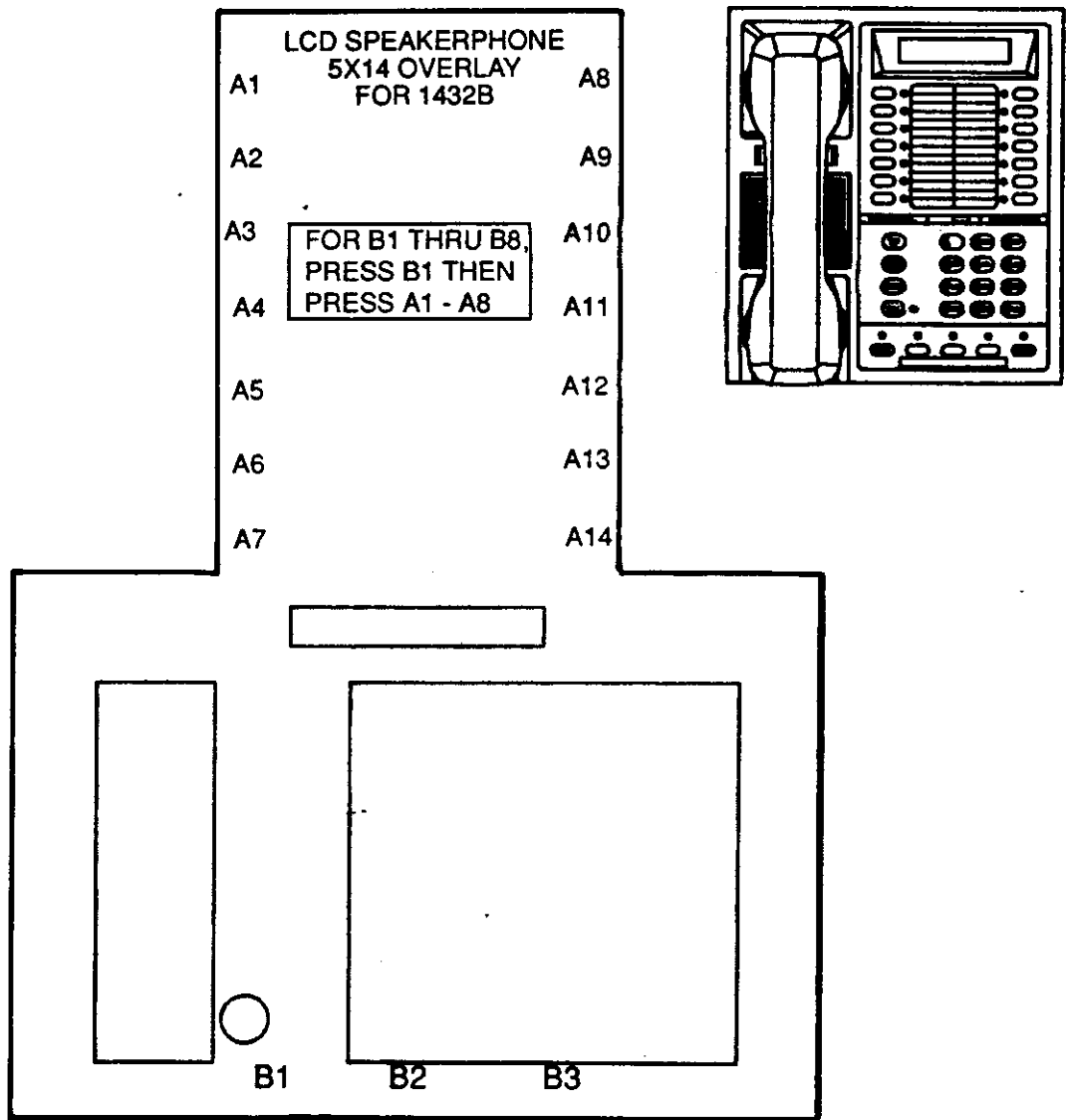






### STATION 10 - PROGRAMMING OVERLAY

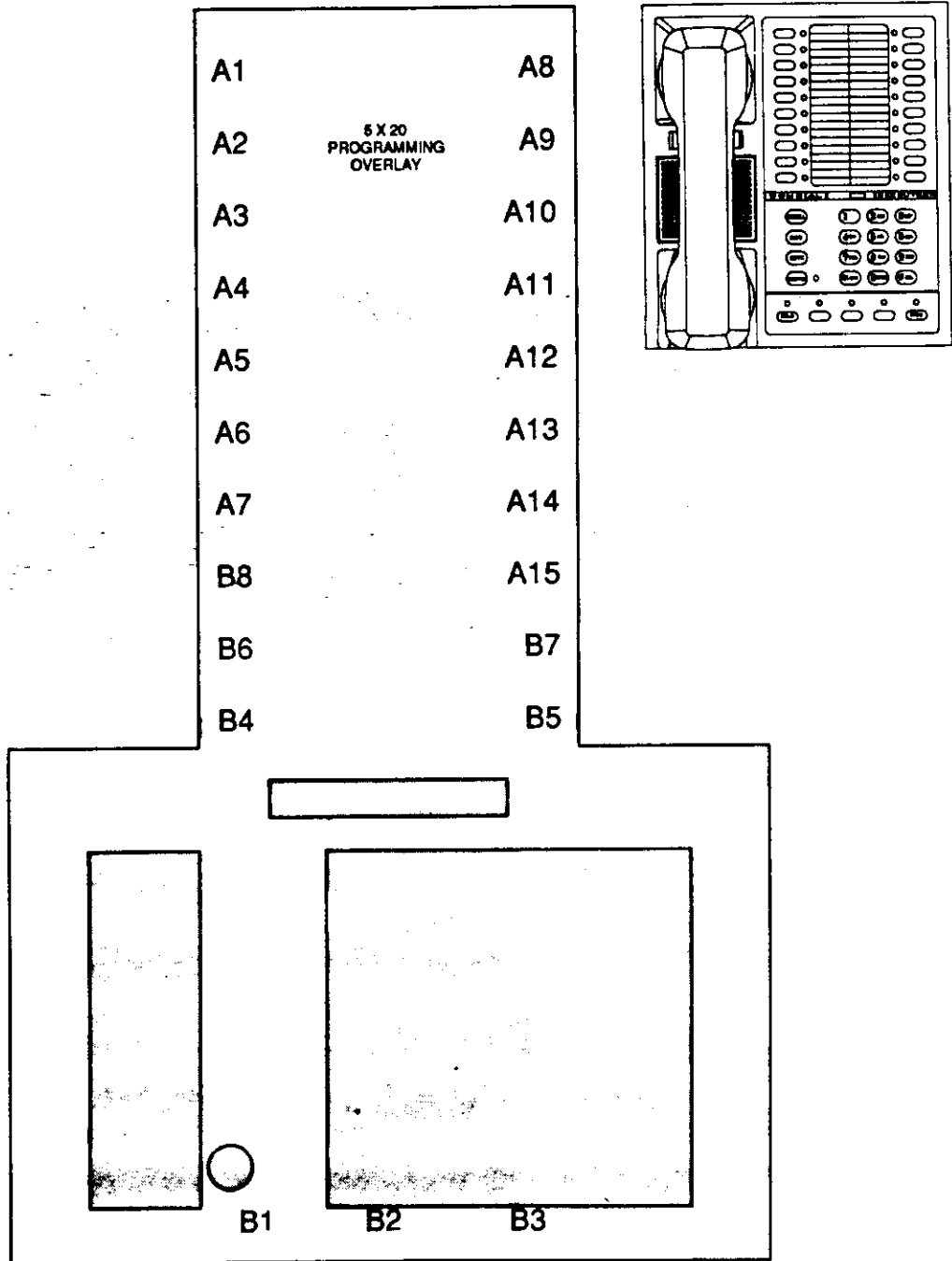
- Cut out along border.
- Cut out shaded openings.
- Fit over station faceplate.





# STATION 10 - PROGRAMMING OVERLAY

- Cut out along border.
- Cut out shaded openings.
- Fit over station faceplate.





# STATION 10 - PROGRAMMING OVERLAY

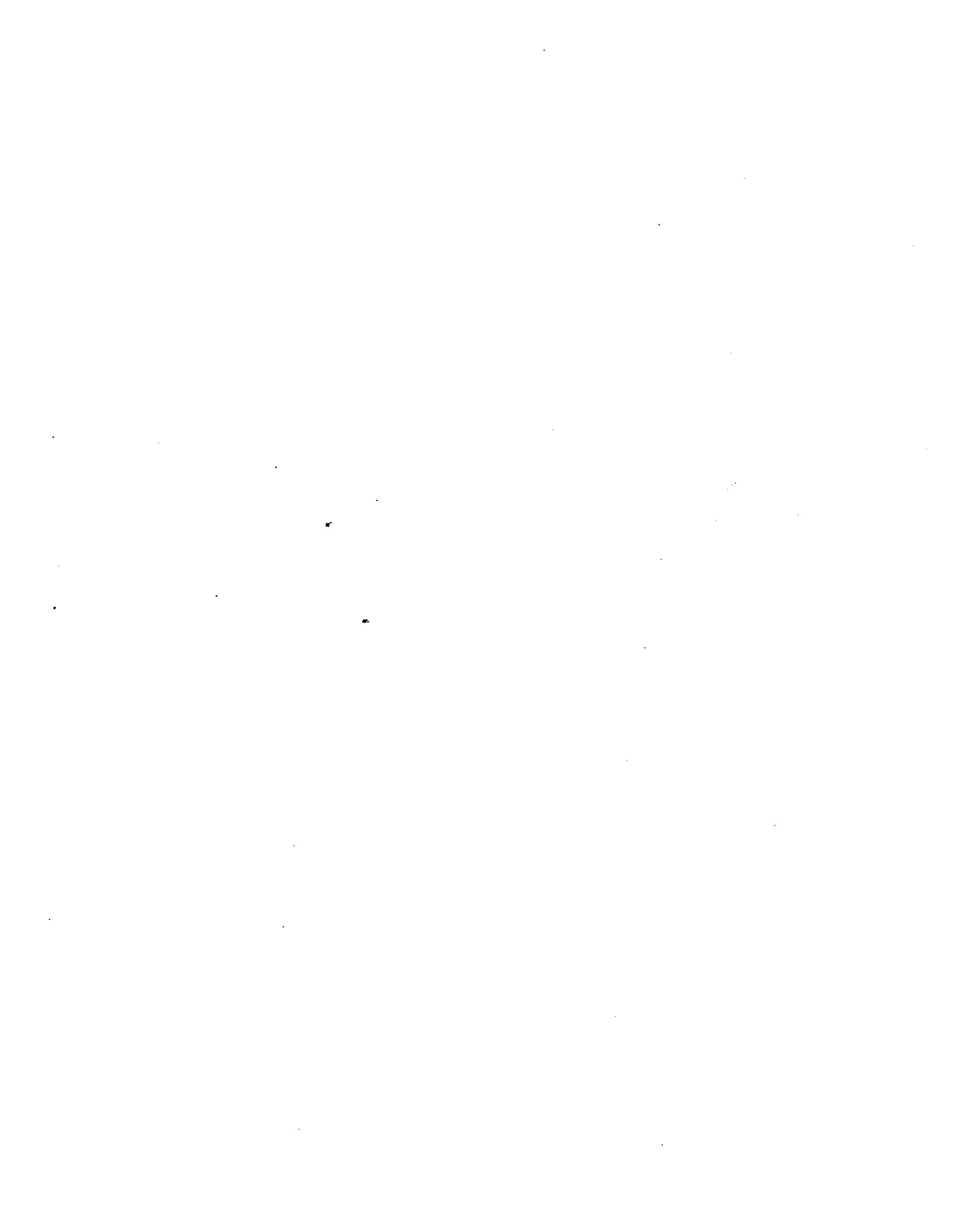
- Cut out along border.
- Cut out shaded openings.
- Fit over station faceplate.

## PROGRAMMING OVERLAY, 32 BUTTON DSS/BLF 703804-456

C25	C41
C24	C40
C23	C39
C22	C38
C21	C37
C20	C36
C19	C35
C18	C34
C17	C33
C16	C32
C15	C31
C14	C30
C13	C29
C12	C28
C11	C27
C10	C26

C25	C41
C24	C40
C23	C39
C22	C38
C21	C37
C20	C36
C19	C35
C18	C34
C17	C33
C16	C32
C15	C31
C14	C30
C13	C29
C12	C28
C11	C27
C10	C26

C25	C41
C24	C40
C23	C39
C22	C38
C21	C37
C20	C36
C19	C35
C18	C34
C17	C33
C16	C32
C15	C31
C14	C30
C13	C29
C12	C28
C11	C27
C10	C26



## CHAPTER 6 MAINTENANCE

*Change to text  
(213)*

### TECHNICAL ASSISTANCE AND REPAIR SERVICE

#### TECHNICAL ASSISTANCE

Should you experience difficulty with installation, checkout, or programming, and have made an attempt to isolate the problem using information provided herein; or should you encounter problems at a later date which cannot be resolved by referring to this manual, call the **Comdial Technical Service** staff. They can be reached at **1-800-366-8224** between the hours of 8:00 AM and 8:00 PM Eastern time, Monday through Friday.

When calling for technical assistance, you should be at the job site and you should have in your possession, as a minimum, an accurate volt-ohm meter and a copy of this manual.

#### REPAIR SERVICE

If your common equipment cabinet or an individual station needs repair, it may be returned to Comdial. Comdial will, at their option, either repair the defective equipment or replace it with a remanufactured unit. This repair will be done for a fixed charge. For information on this charge, please call or write to the address given below.

**Comdial**  
P.O. Box 7266  
Charlottesville, VA 22906  
Attention: Repair Department  
Telephone: (804) 978-2400  
1-800-877-4448

When returning equipment for repair, pack it carefully to prevent damage. Any damages during shipment will be the responsibility of the purchaser. The equipment should be shipped freight or postage prepaid. The shipping address is:

**Comdial**  
1180 Seminole Trail  
Charlottesville, VA 22901  
Attention: Repair Department

#### FUSE LOCATION

The KSU is protected against short circuit damage by a fuse located in the primary of the AC transformer winding. Fuse FS-1 is a 2 amp, 250V slow-blow type fuse. The fuse holder is located near the top of the right side of the KSU cabinet. Always replace this fuse with one of the same value and type, otherwise, equipment damage could result.

FAILU 224-6200

#### WIRING

Refer to the installation instructions for testing failure.

*224 -6202 AS-HSL  
6 pm*  
400.00/500.00

#### SYSTEM STATUS INDICATOR

The red LED located near the fuse holder is the system status indicator. This indicator should turn on steady when AC power is applied to the KSU. If the indicator flashes after power up, it could be indicating a processor failure. Unplug and reconnect the AC power to the KSU and observe the LED indication. If it still shows a flashing indication, refer to **Figure 4-1**.

#### STATION SELF TEST

The multiline stations can be self tested for proper operation per the following instructions.

1. Disconnect the line cord at the station base.

*NOTE: The adjacent odd or even station will be disabled during the time that the station line cord is being disconnected or reconnected.*

2. Press and hold the **MUTE** key, and reconnect the line cord to the station connector. The station will automatically perform a self test routine. Release the **MUTE** key as soon as the test begins. The sequence of the test is as follows:

#### 3 AND 8 LINE KEYSSET

##### SEQUENCE INDICATION

- |   |  |
|---|--|
| 1 | B-Field indicators light in sequence (B1 - B8)       |
| 2 | ITCM indicator lights                                |
| 3 | MONITOR indicator lights                             |
| 4 | All indicators extinguished in same order as lighted |
| 5 | Ringer sounds (be sure vol. is med. or high)         |

#### 22 LINE/FEATURE KEYSSET

##### SEQUENCE INDICATION

- |   |   |
|---|---|
| 1 | MONITOR indicator lights                        |
| 2 | B-Field indicators light in sequence (B1 - B8)  |
| 3 | HOLD indicator lights                           |
| 4 | ITCM indicator lights                           |
| 5 | A-Field indicators light in sequence (A1 - A14) |
| 6 | All indicators extinguished                     |
| 7 | Ringer sounds (be sure vol. is med. or high)    |

3. Replace any station that does not pass the self test.

### DSS/BLF CONSOLE SELF TEST

Test the DSS/BLF Console for proper lamp operation per the following procedure:

1. Disconnect the console line cord plug from the line.
2. Press and hold console key **C10** while reconnecting the line cord plug to the line.

**NOTE:** *The companion station will be disabled during the time that the console is being disconnected and reconnected.*

3. Release console key **C10**, and note that the BLF indicators will each turn on in sequence beginning with the station 10 indicator. The indicators will then turn off and the console will become operational.

### PAIRED STATIONS

Station ports 10, 11, 12, and 13 are paired for data with adjunct ports 10, 11, 12, and 13 respectively. Station ports 10 through 41 are paired for data and for overload protection as shown in Table 3. Adjunct ports 10, 11, 12, and 13 are not overload paired with any other port.

If erratic light indications or ring signals occur at a paired station, an open data pair at either station may be the fault. A station with an open data line may work properly on a short loop but fail on a long loop. Test the wiring of stations showing this symptom per the checkout procedure given in Chapter 2.

If a fault occurs which causes more than 300 ma. of current to be drawn, the overload paired stations are disabled by circuit action. Disconnect the disabled stations and reconnect them one at a time to isolate the faulty one. Station pairing is per the following chart:

DATA PAIRING		OVERLOAD PAIRING	
10 - ADJ 10	24 - 25	10 - 11	26 - 28
11 - ADJ 11	26 - 27	12 - 13	27 - 29
12 - ADJ 12	28 - 29	14 - 16	30 - 32
13 - ADJ 13	30 - 31	15 - 17	31 - 33
14 - 15	32 - 33	18 - 20	34 - 36
16 - 17	34 - 35	19 - 21	35 - 37
18 - 19	36 - 37	22 - 24	38 - 40
20 - 21	38 - 39	23 - 25	39 - 41
22 - 23	40 - 41		

### FAILURE ANALYSIS

#### KSU AND STATION

Figure 4-1 details a failure analysis flow chart to assist a service technician in isolating a failure in a defective system. One way to isolate a failure is to substitute a known good assembly for a suspected one. This is the recommended failure isolation method to use with the system. Connecting and disconnecting stations to the system does not affect the stored station auto/speed dial memory data. This data is stored in the KSU memory and not at the individual stations. Replacing the KSU, however, causes all stored memory to be lost. This includes all memory dialing numbers as well as all COS programming data.



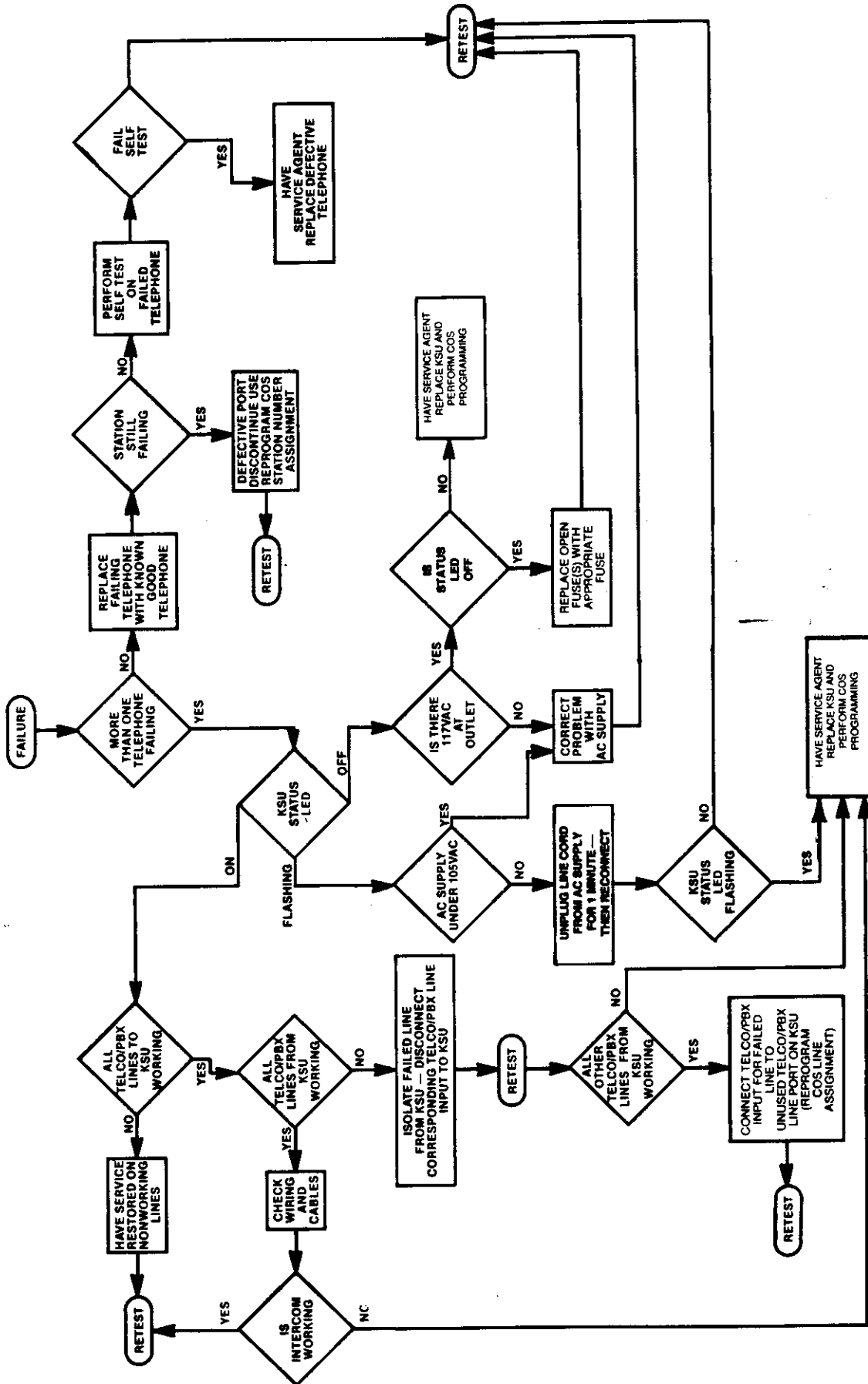


Figure 4-1. Failure Analysis Flow Chart

**DESK/WALL REVERSAL  
AND WALL MOUNTING  
(22 Line/Feature Keypad and Single-Line  
Keypad, Only)**

**CONVERSION**

To convert a station from a standard desk model to one which can be hung on the wall, follow the procedure outlined below.

1. Remove and discard the pull out directory (22 Line/Feature Keypad, Only)
2. Remove the lower housing of the station, and rotate it 180 degrees.

**CAUTION**

**The PWB contains circuitry which is sensitive to static electricity discharge. Be sure that your body and the workplace are properly grounded to avoid any static electricity discharge while performing the desk/wall reversal.**

3. Remove the knockouts from the desired mounting holes as illustrated in Figure 4-2.

4. Replace the lower housing. Make sure that all wires are clear.

**WALL MOUNTING**

Mount the station directly on the wall using two, #10, panhead screws (obtained locally), or mount it on a wall jack cover plate. **If mounted using a wall jack cover plate, an AT&T type 630B wall plate is recommended for best results.**

1. If #10 screws are used, thread them into the wall within 1/8-inch of the surface. Refer to Figure 6-1 for the spacing dimensions.
2. Insure that the housing is converted properly for a wall mounting installation (see above instructions).
3. Position the keyhole shaped holes in the bottom of the station over the #10 screws or the cover plate studs. Slide the station down until a slight click is felt.
4. To remove the station, lift up to unsnap both screws or studs from the bottom housing, and lift the station away from the wall.

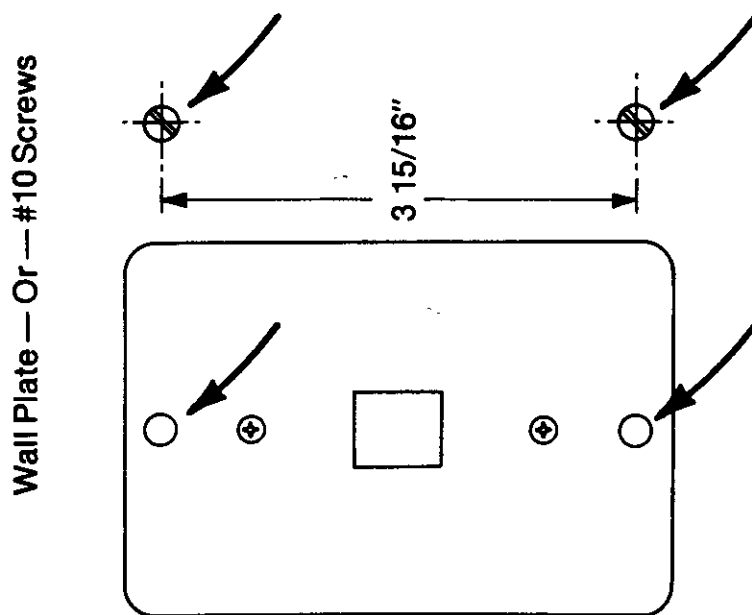
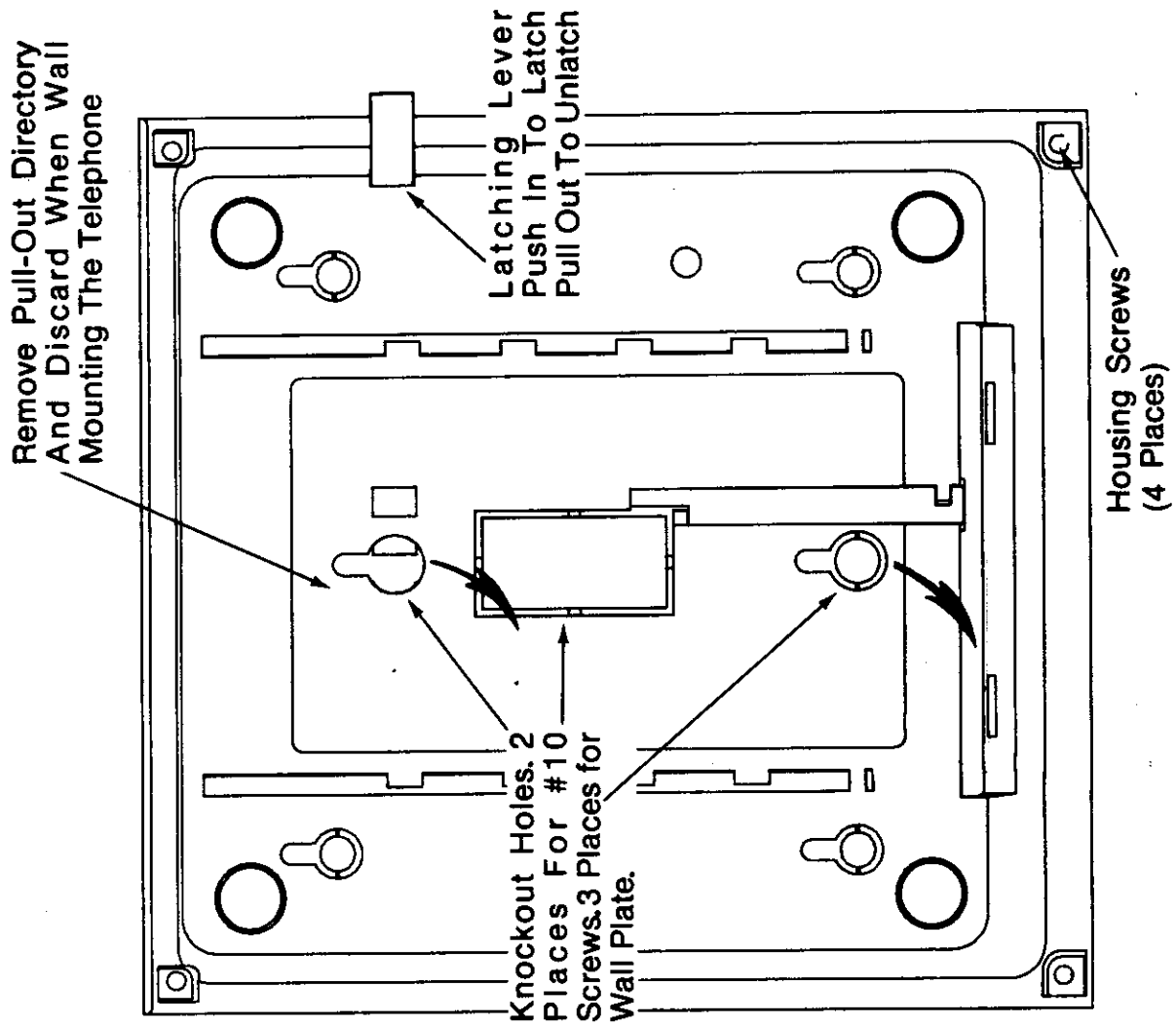


Figure 4-2 Station Wall Mounting Details  
 (22 Line/Feature Keypad shown - Single-Line Keypad similar)



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## TECHNICAL ADVISORY BULLETIN

Date: July, 1990

Re-Issue: TAB 028A

OFF  
FROM  
EXT  
T

### Modifying Previously-Produced ExecuTech Multiline Telephones For Use With Common Equipment Containing Current Revision Operating System Software

Previously-produced ExecuTech telephones can be installed with ExecuTech common equipment that contains current revision operating system software. If this is done, several of the telephone buttons reflect function assignments that are different from the function assignments marked on them.

#### Affected Telephones

- ExecuTech I telephone product codes: 6414-xx, 6414L-xx, 6414S-xx
- ExecuTech II telephone product codes: 6614-xx, 6614S-xx, 6620-xx, 6620S-xx, 6622-xx, 6622S-xx, and 6600S-xx

**NOTE:** ExecuTech telephone model 6414L-xx (8-line BLF) is not compatible with ExecuTech XE/XL or 2000 telephone systems.

#### Applicable Common Equipment

##### ExecuTech 22xx Telephone Systems

2232C revision G and later  
K2264 revision C and later  
K2296 revision C and later

##### CentraTech Telephone Systems

22C32 revision G and later  
22K64 revision F and later  
22K96 revision F and later

##### ExecuTech 2000 Telephone Systems

E34PT all revisions  
E60PT all revisions  
E80PT all revisions

##### ExecuTech XE/XL Key Systems

N0308 all revisions  
N0616 all revisions  
N0820 all revisions  
N1024 and K1024 all revisions

##### ExecuTech 1432B Telephone System

1432B revision F and later

Continued on back

*TAB 028A - Continued*

To increase the functionality of previously-produced model 6414 and 66xx telephones, the re-assigned buttons can be labeled as to their new function using the labeling kit that is supplied with the common equipment..

**CURRENT BUTTON FUNCTION**



**RE- LABELED FUNCTION**



Additional labeling kits are available through normal distribution channels in quantities of 10 labels per package. The Comdial part number for this labeling kit package assembly is **PXLST**.

To re-label buttons proceed as follows,

1. Peel label from protective backing.
2. Carefully position label over telephone button.
3. Press label down firmly on button.

The current revision operating system software contained in the ExecuTech 22xx, CentraTech, and InnTouch common equipment includes a programming step that can be taken to make it compatible with the button assignments of previously-produced telephones. When this programming action is taken, no re-labeling of buttons on previously-produced telephones is required.

Currently-produced telephones are shipped from the factory with the buttons labeled to match the current revision operating system software contained in ExecuTech 1432B, 22xx, CentraTech, InnTouch, XE/XL, and 2000 common equipment. The product codes of these telephones are as follows:

6614E-xx	6614T-xx
6620E-xx	6620T-xx
	6600E-xx

If these currently-produced telephones are installed at sites where the common equipment contains old-revision operating system software, the buttons can be re-labeled to increase their functionality. A labeling kit has been created for this purpose and is available through normal distribution channels in quantities of 10 labels per package. The Comdial part number for this labeling kit package assembly is **PRCST**.

**CURRENT BUTTON FUNCTION**



**RE-LABELED FUNCTION**





# TECHNICAL ADVISORY BULLETIN

**Date:** June 1990

**Issue:** TAB 045

## CALL PARK RECALL PROGRAMMABLE TIMEOUT

A programmable time period now enhances the call park recall timeout feature available on ExecuTech 1432B key/hybrid systems. This feature enhancement is available beginning with:

- Model 1432B common equipment manufacturing code revision number 9xxE and later

FEATURE	BENEFIT
<b>CALL PARK RECALL PROGRAMMABLE TIMEOUT</b>	When a call is parked for pickup, it will recall the parking station if not answered within a programmed time period. This time period is programmed by system class of service as either two minutes (default) or five minutes. A long call park recall timeout period will provide the directed station user more time in which to answer the parked call, and prevent a quick recall to a busy attendant.

The call park recall timeout period is defaulted to two minutes. To change the time to five minutes, re-program as follows:

- Press **ITCM \* 7 4 6 \***.
- Press **B7 (B1, A7, B1)** on LCD Speakerphone).
- Press **#** to set the recall timeout period to five minutes.

***NOTE:** The # key provides a toggle action. Pressing it again will return the time to the two minute default value.*

- Press **\* MONITOR**.

If an optional data printer is connected to the system, the current call park recall timeout period can be verified as follows:

- Press **ITCM \* 7 4 6 \***.
- Press **B6 (B1, A6, B1)** on LCD Speakerphone).
- Press **B5 (B1, A5, B1)** on LCD Speakerphone).
- Press **\* MONITOR**.
- Read current time from printout.

If a video display terminal (VDT) is employed for programming, the call park recall timeout period can be programmed as follows:

- Press **RETURN**.
- Type **I \* 7 4 6 \***. The main programming menu will be displayed.
- Press **RETURN**.

**WELCOME TO EXECUTECH EKTS C.O.S. PROGRAMMING**

1. system c.o.s.
2. line c.o.s.
3. station c.o.s.
4. toll restriction table administration
5. information
6. logoff

- Type **1** and press **RETURN**. The system class of service menu will be displayed.

**SYSTEM C.O.S. PROGRAMMING**

1. system defaults
2. phone type
3. load/save c.o.s. data on tape
4. printer port baud rate
5. c.o.s. data printout
6. voice/tone announce first intercom
7. RECALL/TAP time
8. PAUSE time
9. TIMED HOLD RECALL time
10. station message desk
11. set clock date/time
12. SMDR print width
13. transfer recall time
14. park recall time
15. assign T/C key
16. immediate transfer
17. return to previous menu

- Type **14** and press **RETURN**. A prompt line will be displayed.

**ENTER 0 FOR TWO MINUTE 1 FOR FIVE MINUTE PARK TIME:**

- Type **1** for five minute timeout period or **0** to return to default value of two minutes.

**To return to main menu and then logoff,**

- Type **17** and press **RETURN**.
- Type **6** and press **RETURN**.

# SYSTEM COS PROGRAMMING REFERENCE TABLE

- Shading denotes system default conditions.
- Check off values chosen for system being programmed

BASE LEVEL (1)CM (\*) (7) (4) (6) (\*)

**2 RECALL/FLASH TIME**

KEY	TIME	CHECK-OFF
1	80 MSEC	
2	300 MSEC	
3	500 MSEC	
4	600 MSEC	
5	750 MSEC	
6	875 MSEC	
7	1.0 SEC.	
8	1.5 SEC.	
9	<b>2.0 SEC.</b>	<input checked="" type="checkbox"/>
0	3.0 SEC.	

**5a BAUD RATE FOR COS AND SMDR DATA**

KEY	DATA SPEED	CHECK-OFF
1	110 BAUD, 7 BITS	
2	150 BAUD, 7 BITS	
3	300 BAUD, 7 BITS	
4	600 BAUD, 7 BITS	
5	<b>1200 BAUD, 7 BITS</b>	<input checked="" type="checkbox"/>
6	2400 BAUD, 7 BITS	
7	3600 BAUD, 7 BITS	
8	4800 BAUD, 7 BITS	
9	9600 BAUD, 7 BITS	
0	19200 BAUD, 7 BITS	

**3 PAUSE TIME**

KEY	TIME	CHECK-OFF
1	5 SEC.	
2	<b>1.0 SEC.</b>	<input checked="" type="checkbox"/>
3	1.5 SEC.	
4	2.0 SEC.	
5	3.0 SEC.	
6	5.0 SEC.	
7	7.5 SEC.	
8	10.0 SEC.	
9	15.0 SEC.	
0	20.0 SEC.	

**5b PRINTOUT LINE LENGTH**

KEY	DATA SPEED	CHECK-OFF
(#)	80 COLUMN, 1 LINE	
(8)	<b>40 COLUMN, 2 LINES</b>	<input checked="" type="checkbox"/>

**6 INTERCOM FIRST CHOICE SIGNALLING**

<input checked="" type="checkbox"/>	VOICE	<input checked="" type="checkbox"/>
<input type="checkbox"/>	TONE	

**7 CENTRAL MESSAGE DESK**

(#)	C10-C41 STATION PORT ASSIGNED	
(#) (*)	<b>NONE ASSIGNED</b>	

**4 HOLD RECALL TIME**

KEY	TIME	CHECK-OFF
1	30 SEC.	
2	<b>90 SEC.</b>	
3	90 SEC.	
4	120 SEC.	
5	180 SEC.	
6	240 SEC.	
7	300 SEC.	
8	360 SEC.	
9	420 SEC.	
0	DISABLED	

**RECALL TIME - UNANSWERED CALL TRANSFER**

**8 B7 (B1 A7 B1 LCD PHONE)**

KEY	TIME	ENTRY
1	10 SEC.	
2	<b>20 SEC.</b>	<input checked="" type="checkbox"/>
3	25 SEC.	
4	30 SEC.	
5	45 SEC.	
6	60 SEC.	
7	90 SEC.	
8	120 SEC.	
9	180 SEC.	
0	240 SEC.	

Note: 0 program selection (disabled) enables exclusive hold condition (when set at station) to place line on hold that cannot be released at any other station

**9 STATION TYPE**

STATION TYPE	ADJUNCT PORT			
	10	(C43) 11	(C44) 12	(C45) 13
8 LINE BLF KEYSET	N/A			
DSS/BLF CONSOLE		<input checked="" type="checkbox"/>		

**10 STATION TYPE**

STATION TYPE	STATION PORT																								
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25									
(C42) SINGLE-LINE																									
(C43) 8 LINE BLF																									
(C47) DSS/BLF CONSOLE																									
(C49) 3 AND 8 LINE																									
(C41) 22 LINE/FEATURE																									
(C10) 32-KEY CONSOLE W/O C.A.																									
(8) 32-KEY CONSOLE W.C.A.																									
(7) LCD PHONE	<input checked="" type="checkbox"/>																								

**STATION PORT**

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41





# TOLL RESTRICTION PROGRAMMING REFERENCE TABLES

RESTRICTION TABLE 1																
TYPE: ALLOW _____ DENY <input checked="" type="checkbox"/>																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	9	7	6													
3	4	1	1													
4	0															
TABLE ASSIGNMENT: LINES <u>ALL</u> STATIONS _____																

RESTRICTION TABLE 2																
TYPE: ALLOW <input checked="" type="checkbox"/> DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	8	0	0												
2	9	1	1													
3																
4																
TABLE ASSIGNMENT: LINES <u>ALL</u> STATIONS <u>ALL</u>																

RESTRICTION TABLE 3																
TYPE: ALLOW _____ DENY <input checked="" type="checkbox"/>																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	0															
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 4																
TYPE: ALLOW <input checked="" type="checkbox"/> DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	0															
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 5																
TYPE: ALLOW <input checked="" type="checkbox"/> DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	0															
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 6																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	0															
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 7																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	1															
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 8																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	1															
3	1															
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																



Toll Restriction Tables - continued

RESTRICTION TABLE 9																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 10																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 11																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 12																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 13																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 14																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 15																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 16																
TYPE: ALLOW _____ DENY <input checked="" type="checkbox"/>																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	9	0	0												
2	2	7	6													
3	#	#	#	#	9	7	6									
4																
TABLE ASSIGNMENT: LINES <u>1</u> STATIONS _____																



# LINE COS PROGRAMMING REFERENCE TABLE

- Shading denotes line default conditions.
- Check off values chosen for lines being programmed

BASE LEVEL (ITCM) (★) (7) (4) (6) (★)  
 LINE PROGRAMMING MODE (A1) - (A14)

PROGRAMMED FEATURE		LINE NUMBER													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
3	SELECT	(C46) DISABLED													
	LINE	(C47) AUXILIARY													
	TYPE	(C48) CO/PBX													
4	LINE GROUPS	(C34) GROUP 1													
		(C35) GROUP 2													
		(C36) GROUP 3													
		(C37) GROUP 4													
		(C41) NONE ASSIGNED													
5	DIAL MODE	(C26) PULSE/TONE													
		(C27) TONE ONLY													
6	PRIVACY MODE	(C29) NON-PRIVATE													
		(C28) PRIVATE													
7	TOLL RESTRICTION TABLE ASSIGNMENT	(C10) 1													
		(C11) 2													
		(C12) 3													
		(C13) 4													
		(C14) 5													
		(C15) 6													
		(C16) 7													
		(C17) 8													
		(C18) 9													
		(C19) 10													
		(C20) 11													
		(C21) 12													
		(C22) 13													
		(C23) 14													
		(C24) 15													
		(C25) 16													
		(C33) NONE													
8	ABANDONED	(C42) 300 MSEC													
	HOLD TIMEOUT	(C43) 80 MSEC													

CO/PBX NUMBERS AND STATION ASSIGNMENTS

*Handwritten notes and assignments:*  
 202-650-1111 ALL  
 6243 ALL  
 1234 A  
 5678 A  
 9012 A  
 3456 A  
 7890 A  
 1357 A  
 2468 A  
 3579 A  
 4680 A  
 5791 A  
 6802 A  
 7913 A  
 8024 A  
 9135 A  
 0246 A

\* Power Fall Lines (1, 2, and 3)  
 † A-Lead Control Lines (7 and 8)



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) **(\*)** **(7)** **(4)** **(6)** **(\*)**  
 STATION PROGRAMMING MODE **(B8)**

STATION ID (REF. SYSTEM COS CHART)	
PORT	10
STA TYPE	2 LCD SPK
EXTENTION	
LOCATION	12

4

PA PORT	ENABLED
<b>(*)</b>	ENABLED

5

	ENABLED	DISABLED
<b>(*)</b> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>(*)</b> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(*)</b> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(*)</b> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(*)</b> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
HOLD	1	2	3
HOLD	B1	B2	B3

13-14

RINGING ASSIGNMENT FOR LINES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>(*)</b> RINGING														
<b>(*)</b> DELAYED RINGING														
<b>(*)</b> NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>(*)</b> AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
<b>(*)</b> ACCESS DENIED															
<b>(*)</b> ORIG DENIED	<input checked="" type="checkbox"/>														
<b>(*)</b> IDLE LINE PEF															<input checked="" type="checkbox"/>

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>
ORIGINATE	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>
<b>(*)</b> TAP CLEARED				
PRESS <b>(*)</b> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>	<b>(*)</b>
PRESS <b>(*)</b> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								
DYNAMIC LOOP KEY								

KEY MAPPING 22 LINE/FEATURE KEYS																						
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8
<b>(*)</b> LINE ASSIGNED																						
<b>(*)</b> DSS STA ASSIGNED																						
<b>(*)</b> AUTO DIAL ASSIGNED																						
<b>(*)</b> DISABLED																						
<b>(*)</b> DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		





# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  71  41  61  \*1  
 STATION PROGRAMMING MODE  B8

STATION ID (REF SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	
<input checked="" type="checkbox"/>	ENABLED
<input type="checkbox"/>	ENABLED

		ENABLED	DISABLED
5	<input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	<input checked="" type="checkbox"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	<input checked="" type="checkbox"/> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	<input checked="" type="checkbox"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	<input checked="" type="checkbox"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
ZONE 1	ZONE 2	ZONE 3	ZONE 4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOLD	B1	B2	B3	B4

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING															
<input checked="" type="checkbox"/> DELAYED RINGING															
<input checked="" type="checkbox"/> NIGHT RINGING															

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 26, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
<input checked="" type="checkbox"/> ACCESS DENIED	<input checked="" type="checkbox"/>														
<input checked="" type="checkbox"/> ORIG DENIED	<input checked="" type="checkbox"/>														
<input checked="" type="checkbox"/> IDLE LINE PEF	<input checked="" type="checkbox"/>														

19

TOLL TABLE ASSIGNMENT															
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED				

PRESS  TO CONTINUE

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PRESS  TO CONTINUE

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED								
DYNAMIC LOOP KEY								

KEY MAPPING-22 LINE/FEATURE KEYSET																										
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8				
<input checked="" type="checkbox"/> LINE ASSIGNED																										
DSS STA ASSIGNED																										
AUTO DIAL ASSIGNED																										
DISABLED																										
DYNAMIC LOOP KEY																										

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

- Shading denotes station default conditions.
- Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) \*1 71 41 61 \*1  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	
<input checked="" type="checkbox"/> DISABLED	
<input type="checkbox"/> ENABLED	

	ENABLED	DISABLED
5 <input type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <input type="checkbox"/> EXECUTIVE OVERRIDE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7 <input type="checkbox"/> SYS. SPEED TOLL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9 <input type="checkbox"/> AUTOMATIC HOLD	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10 <input type="checkbox"/> MESSAGE WAIT-ORIG	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	B1	B2	B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> C41	RINGING														
<input checked="" type="checkbox"/> C42	DELAYED RINGING														
<input checked="" type="checkbox"/> C43	NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 28, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> C44	AUTO PRIVACY REL	<input checked="" type="checkbox"/>													
<input checked="" type="checkbox"/> C45	ACCESS DENIED	<input checked="" type="checkbox"/>													
<input checked="" type="checkbox"/> C46	ORIG DENIED	<input checked="" type="checkbox"/>													
<input checked="" type="checkbox"/> C48	IDLE LINE PEF	<input checked="" type="checkbox"/>													

19

C49 TOLL TABLE ASSIGNMENT															
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A1)	(A2)	(A7)	(A8)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
TAP CLEARED				
PRESS (C5) TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS (C5) TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/> (C-10) (A1)																							
<input type="checkbox"/> (B8)																							
DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  (7)  (4)  (6)  (1)  
 STATION PROGRAMMING MODE (BB)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENSION	
LOCATION	502 1044

4

PA PORT	
<input checked="" type="checkbox"/>	ENABLED
<input type="checkbox"/>	DISABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input type="checkbox"/>
7 <input checked="" type="checkbox"/> SYS SPEED TOLL	<input type="checkbox"/>	<input type="checkbox"/>
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input type="checkbox"/>
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input type="checkbox"/>

8

PERSONAL RINGING			
<input checked="" type="checkbox"/> TONE 1	<input checked="" type="checkbox"/> TONE 2	<input checked="" type="checkbox"/> TONE 3	<input checked="" type="checkbox"/> TONE 4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	B1	B2	B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING	(C2)														
<input checked="" type="checkbox"/> DELAYED RINGING	(C3)														
<input checked="" type="checkbox"/> NIGHT RINGING	(C4)														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 16, 17, 28, AND 41

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL															
<input checked="" type="checkbox"/> ACCESS DENIED															
<input checked="" type="checkbox"/> ORIG DENIED															
<input checked="" type="checkbox"/> IDLE LINE PEF															

19

(C4) TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)

B4 B5

21

(C5) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A6)	(A6)	(A7)	(A6)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
(TAP) CLEARED				
PRESS (C2) TO CONTINUE				

20

(C6) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
(C)	(C)	(C)	(C)	(C)	(C)	(C)	(C)
PRESS (C2) TO CONTINUE							

22

(C7) KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
(C-10-C-41) LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
DSS STA ASSIGNED																							
AUTO DIAL ASSIGNED																							
(BP) DISABLED																							
DYNAMIC LOOP KEY																							



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  (7)  (4)  (6)

STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	17
STA TYPE	25 Line
EXTENSION	
LOCATION	M-10-110

4

PA PORT	<del>DISABLED</del>
<input checked="" type="checkbox"/>	ENABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7 <input checked="" type="checkbox"/> SYS SPEED TOLL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

11

NONE	PRIME LINE-AUTOMATIC																						
	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
1	2	3	4
HOLD	B1	B2	B3
HOLD			

13-14

RINGING ASSIGNMENT FOR LINES	PRIME LINE-AUTOMATIC													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> DELAYED RINGING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> NIGHT RINGING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.**

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	PRIME LINE-AUTOMATIC													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> ACCESS DENIED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> ORIG DENIED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> IDLE LINE PEF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

19

NONE	TOLL TABLE ASSIGNMENT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/> LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
<input checked="" type="checkbox"/> DSS STA ASSIGNED																							
<input checked="" type="checkbox"/> AUTO DIAL ASSIGNED																							
<input checked="" type="checkbox"/> DISABLED																							
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		





# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) **(\*)** (7) (4) (6) **(\*)**  
 STATION PROGRAMMING MODE **(B8)**

STATION ID (REF. SYSTEM COS CHART)	
PORT	15
STA TYPE	2-1
EXTENSION	25
LOCATION	25

4

PA PORT	DISABLED
(1)	ENABLED

	ENABLED	DISABLED
5 (1) VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 (1) EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input type="checkbox"/>
7 (4) SYS SPEED TOLL	<input type="checkbox"/>	<input type="checkbox"/>
9 (1) AUTOMATIC HOLD	<input type="checkbox"/>	<input type="checkbox"/>
10 (1) MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input type="checkbox"/>

8

PERSONAL RINGING			
VOICE 1	ZONE 2	ZONE 3	ZONE 4
(1)	(1)	(1)	(1)

11

PRIME LINE-AUTOMATIC																								
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)	(A23)	

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
1	2	3	4
HOLD	B1	B2	B3
HOLD			

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C1)	RINGING	<input checked="" type="checkbox"/>													
(C2)	DELAYED RINGING														
(C3)	NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C4) AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
(C5) ACCESS DENIED	<input checked="" type="checkbox"/>														
(C6) ORIG DENIED	<input checked="" type="checkbox"/>														
(C7) IDLE LINE PEF	<input checked="" type="checkbox"/>														

19

TOLL TABLE ASSIGNMENT	
NONE	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
(C8)	(A1) (A2) (A3) (A4) (A5) (A6) (A7) (A8) (A9) (A10) (A11) (A12) (A13) (A14) B4 B5

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A2)	(A6)	(A7)	(A8)
ORIGINATE	(A1)	(A3)	(A5)	(A4)
(TAP) CLEARED				
PRESS (C9) TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
(1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PRESS (C4) TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYSET																								
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8		
(C-10) (A1)																								
LINE ASSIGNED																								
DSS STA ASSIGNED																								
AUTO DIAL ASSIGNED																								
DISABLED																								
DYNAMIC LOOP KEY																								

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  (7)  (4)  (6)  (8)  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	Motel

4

PA PORT	<input checked="" type="checkbox"/> DISABLED
	<input type="checkbox"/> ENABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK		
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE		
7 <input checked="" type="checkbox"/> SYS SPEED TOLL		
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD		
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG		

8

PERSONAL RINGING			
1 <input checked="" type="checkbox"/> TONE 1	<input checked="" type="checkbox"/> TONE 2	<input checked="" type="checkbox"/> TONE 3	<input checked="" type="checkbox"/> TONE 4

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

12

RINGING LINE PREFERENCE	
B5	<input checked="" type="checkbox"/> ENABLED
B4	<input checked="" type="checkbox"/> DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	<input checked="" type="checkbox"/> B1	<input checked="" type="checkbox"/> B2	<input checked="" type="checkbox"/> B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING															
<input checked="" type="checkbox"/> DELAYED RINGING															
<input checked="" type="checkbox"/> NIGHT RINGING															

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 21.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL															
<input checked="" type="checkbox"/> ACCESS DENIED															
<input checked="" type="checkbox"/> ORIG DENIED															
<input checked="" type="checkbox"/> IDLE LINE PEF															

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	<input checked="" type="checkbox"/>															

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED				
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/> LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14									
DSS STA ASSIGNED																							
AUTO DIAL ASSIGNED																							
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

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• Shading denotes station default conditions.

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) **(\*)** **(7)** **(4)** **(6)** **(\*)**  
 STATION PROGRAMMING MODE **(B8)**

STATION ID (REF. SYSTEM COS CHART)	
PORT	17
STA TYPE	22 level
EXTENTION	17
LOCATION	...

4

PA PORT	DISABLED
<b>(1)</b>	ENABLED

	ENABLED	DISABLED
5 <b>(2)</b> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <b>(3)</b> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 <b>(4)</b> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 <b>(5)</b> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 <b>(6)</b> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
<del>7</del>	<b>(8)</b>	<b>(9)</b>	<b>(0)</b>
<b>(7)</b>	<b>(8)</b>	<b>(9)</b>	<b>(0)</b>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
HOLD	1	2	3
HOLD	B1	B2	B3

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>(CA)</b>	RINGING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(CB)</b>	DELAYED RINGING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>(CA)</b>	NIGHT RINGING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>(CH)</b> AUTO PRIVACY REL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>(CM)</b> ACCESS DENIED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>(CA)</b> ORIG DENIED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>(CP)</b> IDLE LINE PREF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19

<b>(CA)</b> TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)

21

<b>(A)</b> ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<b>(A6)</b>	<b>(A6)</b>	<b>(A7)</b>	<b>(A6)</b>
ORIGINATE	<b>(A7)</b>	<b>(A6)</b>	<b>(A3)</b>	<b>(A4)</b>
TAP CLEARED				
PRESS <b>(A6)</b> TO CONTINUE				

20

<b>(E)</b> RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>
PRESS <b>(A2)</b> TO CONTINUE							

22

<b>(W)</b> KEY MAPPING - 3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<b>(C-10-C-11)</b> LINE ASSIGNED																							
DSS STA ASSIGNED																							
AUTO DIAL ASSIGNED																							
<b>(W)</b> DISABLED																							
DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

- Shading denotes station default conditions.
- Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) **(\*)** (7) (4) (6) **(\*)**  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	148
STA TYPE	22 line
EXTENTION	
LOCATION	1000000000

4

PA PORT	DISABLED
(1)	ENABLED

	ENABLED	DISABLED
5 (7) VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 (8) EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 (9) SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 (5) AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 (6) MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
ZONE 1	ZONE 2	ZONE 3	ZONE 4
(1)	(2)	(3)	(4)

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
(B4)	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	(B1)	(B2)	(B3)	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(G5) RINGING		<input checked="" type="checkbox"/>													
(G6) DELAYED RINGING															
(G7) NIGHT RINGING															

**DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 26, AND 41.**

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C1) AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
(C2) ACCESS DENIED															
(C3) ORIG DENIED															
(C4) IDLE LINE PEF															

19

(C5) TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)

21

(C6) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A4)	(A5)	(A7)	(A8)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
(TAP) CLEARED				
PRESS (C6) TO CONTINUE				

20

(C7) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PRESS (C7) TO CONTINUE							

22

(C8) KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED								
DYNAMIC LOOP KEY								

KEY MAPPING-22 LINE/FEATURE KEYSET																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
(C-10) (C-11) LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
DSS STA ASSIGNED																							
AUTO DIAL ASSIGNED																							
DISABLED																							
DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		





# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) \*1 71 41 61 \*1  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	19
STA TYPE	272200
EXTENTION	19
LOCATION	2011 F.N.W.

4

PA PORT	DISABLED
1	ENABLED

		ENABLED	DISABLED
5	1 VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	1 EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	1 SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	1 AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	1 MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
1	2	3	4

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	B1	B2	B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C1)	RINGING	<input checked="" type="checkbox"/>													
(C2)	DELAYED RINGING														
(C3)	NIGHT RINGING														

\*DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C4) AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
(C5) ACCESS DENIED															
(C6) ORIG DENIED															
(C7) IDLE LINE PEF															

19

(C8) TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)

21

(C9) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A1)	(A2)	(A3)	(A4)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
(TAP) CLEARED				
PRESS (C9) TO CONTINUE				

20

(C10) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
(C10)	(C1)	(C2)	(C3)	(C4)	(C5)	(C6)	(C7)
PRESS (C10) TO CONTINUE							

22

(B8) KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYSET																						
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8
(C10) (A1)	1	2	3	4	5	6	7	8	9	10	11	12	13	14								
LINE ASSIGNED																						
DSS STA ASSIGNED																						
AUTO DIAL ASSIGNED																						
DISABLED																						
DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) \*1 71 41 61 \*1  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	20
STA TYPE	20
EXTENTION	20
LOCATION	20

4

PA PORT	
<input checked="" type="radio"/>	DISABLED
<input type="radio"/>	ENABLED

5

	ENABLED	DISABLED
5 <input type="radio"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <input type="radio"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 <input type="radio"/> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 <input type="radio"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 <input type="radio"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
1	2	3	4
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
1	2	3	4
HOLD	B1	B2	B3
HOLD			

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C1)	RINGING	<input checked="" type="checkbox"/>													
(C2)	DELAYED RINGING														
(C3)	NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 16, 17, 28, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C4) AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
(C5) ACCESS DENIED	<input checked="" type="checkbox"/>														
(C7) ORIG DENIED	<input checked="" type="checkbox"/>														
(C8) IDLE LINE PEF	<input checked="" type="checkbox"/>														

19

(C6) TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)

B4 B5

21

(C9) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A5)	(A6)	(A7)	(A8)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
TAP CLEARED				
PRESS (C9) TO CONTINUE				

20

(C) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PRESS (C) TO CONTINUE							

22

(B) KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
(C-10) (C-41) LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14									
DSS STA ASSIGNED																							
AUTO DIAL ASSIGNED																							
DISABLED																							
DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) \*1 (7) (4) (6) \*1

STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	
<input checked="" type="checkbox"/> DISABLED	
<input type="checkbox"/> ENABLED	

	ENABLED	DISABLED
5 <input type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <input type="checkbox"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 <input type="checkbox"/> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 <input type="checkbox"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 <input type="checkbox"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 0

11

PRIME LINE-AUTOMATIC																							
NONE	1TCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
	1	2	3
HOLD	B1	B2	B3
HOLD			

13-14

RINGING ASSIGNMENT FOR LINES															
(CA1)	RINGING	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(CA2)	DELAYED RINGING														
(CA3)	NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(CA4) AUTO PRIVACY REL															
(CA5) ACCESS DENIED															
(CA7) ORIG DENIED															
(CA8) IDLE LINE PEF															

19

(CA9) TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)

21

(CA10) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A6)	(A6)	(A7)	(A6)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
(TAP) CLEARED				
PRESS (CA9) TO CONTINUE				

20

(CA11) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
	(0)	(1)	(2)	(3)	(4)	(5)	(6)
PRESS (CA11) TO CONTINUE							

22

(B8) KEY MAPPING--J AND B LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE FEATURE KEYSET																							
	MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8
(C-10) (C-41)	LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	DSS STA ASSIGNED																						
	AUTO DIAL ASSIGNED																						
(B7)	DISABLED																						
	DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  71  43  61  \*1  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	23
STA TYPE	22 Line
EXTENSION	25
LOCATION	

4

PA PORT	
<input checked="" type="checkbox"/>	DISABLED
<input type="checkbox"/>	ENABLED

		ENABLED	DISABLED
5	<input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	<input checked="" type="checkbox"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	<input checked="" type="checkbox"/> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	<input checked="" type="checkbox"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	<input checked="" type="checkbox"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING				
TONE 1	TONE 2	TONE 3	TONE 4	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11

NONE	PRIME LINE-AUTOMATIC																						
	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOLD	B1	B2	B3	

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING															
<input checked="" type="checkbox"/> DELAYED RINGING															
<input checked="" type="checkbox"/> NIGHT RINGING															

DEFAULT TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
<input checked="" type="checkbox"/> ACCESS DENIED	<input type="checkbox"/>														
<input checked="" type="checkbox"/> ORIG DENIED	<input checked="" type="checkbox"/>														
<input checked="" type="checkbox"/> IDLE LINE PEF	<input type="checkbox"/>														

19

TOLL TABLE ASSIGNMENT	
NONE	<input checked="" type="checkbox"/>
1	<input checked="" type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
4	<input type="checkbox"/>
5	<input type="checkbox"/>
6	<input type="checkbox"/>
7	<input type="checkbox"/>
8	<input type="checkbox"/>
9	<input type="checkbox"/>
10	<input type="checkbox"/>
11	<input type="checkbox"/>
12	<input type="checkbox"/>
13	<input type="checkbox"/>
14	<input type="checkbox"/>
15	<input type="checkbox"/>
B4	<input type="checkbox"/>
B5	<input type="checkbox"/>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING—3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED								
DYNAMIC LOOP KEY								

		KEY MAPPING-22 LINE FEATURE KEYSET																					
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<input checked="" type="checkbox"/>	DSS STA ASSIGNED																						
<input checked="" type="checkbox"/>	AUTO DIAL ASSIGNED																						
<input checked="" type="checkbox"/>	DISABLED																						
<input checked="" type="checkbox"/>	DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		





# STATION COS PROGRAMMING REFERENCE TABLE

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• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) **(\*) (7) (4) (6) (\*)**  
 STATION PROGRAMMING MODE **(B8)**

STATION ID (REF SYSTEM COS CHART)	
PORT	23
STA TYPE	23
EXTENTION	23
LOCATION	

4

PA PORT	DISABLED
(1)	ENABLED

	ENABLED	DISABLED
5 (1) VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 (1) EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 (1) SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 (1) AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 (1) MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
ZONE 1	ZONE 2	ZONE 3	ZONE 4
(1)	(6)	(6)	(6)

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)	

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	B1	B2	B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C8) RINGING		<input checked="" type="checkbox"/>													
(C9) DELAYED RINGING															
(C10) NIGHT RINGING															

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 28, AND 41

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C11) AUTO PRIVACY REL															
(C12) ACCESS DENIED															
(C13) ORIG DENIED															
(C14) IDLE LINE PREF															

19

(C15) TOLL TABLE ASSIGNMENT															
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	B4 B5

21

(C16) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A6)	(A6)	(A7)	(A6)
ORIGINATE	(A7)	(A6)	(A6)	(A6)
(TAP) CLEARED				
PRESS (C16) TO CONTINUE				

20

(C17) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
PRESS (C17) TO CONTINUE							

22

(C18) KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYSET																						
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8
(C-10) (C-11)	1	2	3	4	5	6	7	8	9	10	11	12	13	14								
LINE ASSIGNED																						
DSS STA ASSIGNED																						
AUTO DIAL ASSIGNED																						
DISABLED																						
DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (TCM)  71  41  61  \*1  
 STATION PROGRAMMING MODE  B8

STATION ID (REF. SYSTEM COS CHART)	
PORT	24
STA TYPE	24
EXTENSION	
LOCATION	

4

PA PORT	<input checked="" type="checkbox"/> DISABLED
	<input type="checkbox"/> ENABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 <input checked="" type="checkbox"/> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11

NONE	PRIME LINE-AUTOMATIC																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
(TCM)	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22

12

RINGING LINE PREFERENCE	
B5	<input checked="" type="checkbox"/> ENABLED
B4	<input checked="" type="checkbox"/> DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOLD	B1	B2	B3	

13-14

RINGING ASSIGNMENT FOR LINES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> DELAYED RINGING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> NIGHT RINGING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> ACCESS DENIED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> ORIG DENIED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> IDLE LINE PREF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19

TOLL TABLE ASSIGNMENT															
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	B4
															B5

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING—3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE FEATURE KEYSET																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/> LINE ASSIGNED																							
<input checked="" type="checkbox"/> DSS STA ASSIGNED																							
<input checked="" type="checkbox"/> AUTO DIAL ASSIGNED																							
<input checked="" type="checkbox"/> DISABLED																							
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

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• Shading denotes station default conditions.

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) \* (7) (4) (6) \*

STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	DISABLED
(1)	ENABLED

	ENABLED	DISABLED
5 (1) VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 (1) EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 (1) SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8 (1) AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 (1) MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
(1)	(2)	(3)	(4)

11

NONE	PRIME LINE-AUTOMATIC																						
	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
HOLD	1	2	3
HOLD	B1	B2	B3

13-14

RINGING ASSIGNMENT FOR LINES	RINGING													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C4) DELAYED RINGING														
(C4) NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 16, 17, 20, AND 21.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	RINGING													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C4) AUTO PRIVACY REL															
(C4) ACCESS DENIED															
(C4) ORIG DENIED															
(C4) IDLE LINE PEF															

19

(C4) TOLL TABLE ASSIGNMENT															
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)

21

* ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A1)	(A2)	(A3)	(A4)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
(TAP) CLEARED				
PRESS (C4) TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PRESS (C4) TO CONTINUE							

22

(B8) KEY MAPPING—3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								
DYNAMIC LOOP KEY								

KEY MAPPING-22 LINE/FEATURE KEYSET																						
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8
(C-10) (C-4) LINE ASSIGNED	1	2	3	4	5	6	7	8	9	10	11	12	13	14								
DSS STA ASSIGNED																						
AUTO DIAL ASSIGNED																						
DISABLED																						
DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  71  41  61  \*1  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	2
STA TYPE	22
EXTENTION	22
LOCATION	22

4

PA PORT	<input checked="" type="checkbox"/> DISABLED
	<input checked="" type="checkbox"/> ENABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 <input checked="" type="checkbox"/> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
TONE 1	TONE 2	TONE 3	TONE 4
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE		PRIME GROUP-AUTOMATIC			
		1	2	3	4
B5	<input checked="" type="checkbox"/> ENABLED				
B4	<input checked="" type="checkbox"/> DISABLED				
HOLD		B1	B2	B3	
HOLD					

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING															
<input checked="" type="checkbox"/> DELAYED RINGING															
<input checked="" type="checkbox"/> NIGHT RINGING															

\*DEFAULT TS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
<input checked="" type="checkbox"/> ACCESS DENIED															
<input checked="" type="checkbox"/> ORIG DENIED															
<input checked="" type="checkbox"/> IDLE LINE PEF															

19

TOLL TABLE ASSIGNMENT	
NONE	1-15
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED				
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED								
DYNAMIC LOOP KEY								

		KEY MAPPING-22 LINE/FEATURE KEYS																						
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/>	LINE ASSIGNED																							
<input checked="" type="checkbox"/>	DSS STA ASSIGNED																							
<input checked="" type="checkbox"/>	AUTO DIAL ASSIGNED																							
<input checked="" type="checkbox"/>	DISABLED																							
<input checked="" type="checkbox"/>	DYNAMIC LOOP KEY																							





# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  71  41  61  \*  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	<input checked="" type="checkbox"/> DISABLED
<input checked="" type="checkbox"/> ENABLED	

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE		<input checked="" type="checkbox"/>
7 <input checked="" type="checkbox"/> SYS SPEED TOLL		<input checked="" type="checkbox"/>
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD		<input checked="" type="checkbox"/>
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG		<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
1	2	3	4
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

11

NONE	PRIME LINE-AUTOMATIC																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
1	2	3	4
HOLD	B1	B2	B3
HOLD			

13-14

RINGING ASSIGNMENT FOR LINES	RINGING													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C5) RINGING														
(C6) DELAYED RINGING														
(C4) NIGHT RINGING														

\*DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C4) AUTO PRIVACY REL															
(C6) ACCESS DENIED															
(C7) ORIG DENIED															
(C8) IDLE LINE PEF															

19

(C6) TOLL TABLE ASSIGNMENT															
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	B4 B5

21

(C) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A1)	(A2)	(A3)	(A4)
ORIGINATE	(A1)	(A2)	(A3)	(A4)
(TAP) CLEARED				
PRESS (C6) TO CONTINUE				

20

(C) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
(C)	(C)	(C)	(C)	(C)	(C)	(C)	(C)
PRESS (C6) TO CONTINUE							

22

(C) KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED								
DYNAMIC LOOP KEY								

KEY MAPPING-22 LINE FEATURE KEYS																						
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8
(C-10-C-11) LINE ASSIGNED																						
DSS STA ASSIGNED																						
AUTO DIAL ASSIGNED																						
DISABLED																						
DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) \*1 71 41 61 \*1  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA. TYPE	
EXTENTION	
LOCATION	

4

PA PORT	
<input type="checkbox"/>	DISABLED
<input checked="" type="checkbox"/>	ENABLED

		ENABLED	DISABLED
5	VOICE BLOCK	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	SYS. SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
ZONE 1	ZONE 2	ZONE 3	ZONE 4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(ITCM)	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)	(A20)	(A21)	(A22)

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	B1	B2	B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C5)	RINGING														
(C6)	DELAYED RINGING														
(C4)	NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(C8) AUTO PRIVACY REL	<input checked="" type="checkbox"/>														
(C9) ACCESS DENIED	<input type="checkbox"/>														
(C7) ORIG DENIED	<input type="checkbox"/>														
(C6) IDLE LINE PEF	<input type="checkbox"/>														

19

(C9) TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)	(A14)	(A15)	(A16)

B4 B5

21

(C8) ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	(A8)	(A6)	(A7)	(A4)
ORIGINATE	(A1)	(A2)	(A3)	(A2)
(TAP) CLEARED				
PRESS (C8) TO CONTINUE				

20

(C8) RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS (C8) TO CONTINUE							

22

(C8) KEY MAPPING-3 AND 6 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
(C-10) (C-4)	LINE ASSIGNED																						
	DSS STA ASSIGNED																						
	AUTO DIAL ASSIGNED																						
(B8)	DISABLED																						
	DYNAMIC LOOP KEY																						

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

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**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  (71) (41) (61)   
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	
<input checked="" type="checkbox"/>	ENABLED
<input type="checkbox"/>	DISABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7 <input checked="" type="checkbox"/> SYS SPEED TOLL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8

PERSONAL RINGING			
ZONE 1	ZONE 2	ZONE 3	ZONE 4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
1	2	3	4
HOLD	B1	B2	B3
HOLD			

13-14

RINGING ASSIGNMENT FOR LINES													
	1	2	3	4	5	6	7	8	9	10	11	12	13
<input checked="" type="checkbox"/> RINGING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> DELAYED RINGING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> NIGHT RINGING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41**

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> ACCESS DENIED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> ORIG DENIED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> IDLE LINE PEF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED								
DYNAMIC LOOP KEY								

KEY MAPPING-22 LINE/FEATURE KEYSET																												
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8						
<input checked="" type="checkbox"/> LINE ASSIGNED																												
DSS STA ASSIGNED																												
AUTO DIAL ASSIGNED																												
DISABLED																												
DYNAMIC LOOP KEY																												

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



### SYSTEM SPEED DIAL INDEX

SYSTEM SPEED DIAL RECORD			
LOC	NUMBER	LOC	NUMBER
01	14044522	31	
02	21040522	32	
03		33	
04		34	
05		35	
06		36	
07		37	
08		38	
09		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16		46	
17		47	
18		48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	
30			









# TOLL RESTRICTION PROGRAMMING REFERENCE TABLES

RESTRICTION TABLE 1																
TYPE: ALLOW _____ DENY <u>X</u>																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	9	7	6													
3	4	1	1													
4	0															
TABLE ASSIGNMENT: LINES <u>ALL</u> STATIONS _____																

RESTRICTION TABLE 2																
TYPE: ALLOW <u>X</u> _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	8	0	0												
2	9	1	1													
3																
4																
TABLE ASSIGNMENT: LINES <u>ALL</u> STATIONS _____																

RESTRICTION TABLE 3																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 4																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 5																
E: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 6																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 7																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 8																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																



Toll Restriction Tables - continued

RESTRICTION TABLE 9																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 10																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 11																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 12																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 13																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 14																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 15																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																

RESTRICTION TABLE 16																
TYPE: ALLOW _____ DENY _____																
ENTRY	ENTRY NUMBER (16 MAXIMUM)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
TABLE ASSIGNMENT: LINES _____ STATIONS _____																



# LINE COS PROGRAMMING REFERENCE TABLE

- Shading denotes line default conditions.
- Check off values chosen for lines being programmed

BASE LEVEL (ITCM) (★) (7) (4) (6) (★)  
 LINE PROGRAMMING MODE (A1) - (A14)

PROGRAMMED FEATURE		LINE NUMBER													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
3	SELECT LINE TYPE	(C46) DISABLED													
		(C47) AUXILIARY													
		(C48) CO/PBX													
4	LINE GROUPS	(C34) GROUP 1													
		(C35) GROUP 2													
		(C36) GROUP 3													
		(C37) GROUP 4													
		(C41) NONE ASSIGNED													
5	DIAL MODE	(C26) PULSE/TONE													
		(C27) TONE ONLY													
6	PRIVACY MODE	(C29) NON-PRIVATE													
		(C28) PRIVATE													
7	TOLL RESTRICTION TABLE ASSIGNMENT	(C10) 1													
		(C11) 2													
		(C12) 3													
		(C13) 4													
		(C14) 5													
		(C15) 6													
		(C16) 7													
		(C17) 8													
		(C18) 9													
		(C19) 10													
		(C20) 11													
		(C21) 12													
		(C22) 13													
		(C23) 14													
		(C24) 15													
		(C25) 16													
	(C33) NONE														
8	ABANDONED HOLD TIMEOUT	(C42) 300 MSEC													
		(C43) 60 MSEC													

CO/PBX NUMBERS AND STATION ASSIGNMENTS

\* Power Fall Lines (1, 2, and 3)  
 \*\* A-Lead Control Lines (7 and 8)





# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM) **(★)** **(7)** **(4)** **(6)** **(★)**  
 STATION PROGRAMMING MODE **(B8)**

STATION ID (REF SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	
<input type="checkbox"/>	DISABLED
<input checked="" type="checkbox"/>	ENABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK		
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE		
7 <input checked="" type="checkbox"/> SYS SPEED TOLL		
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD		
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG		

8

PERSONAL RINGING			
PHONE 1	PHONE 2	PHONE 3	PHONE 4
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

11

PRIME LINE AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP AUTOMATIC				
HOLD	1	2	3	4
<input checked="" type="checkbox"/>	B1	B2	B3	

13-14

RINGING ASSIGNMENT FOR LINES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING														
<input checked="" type="checkbox"/> DELAYED RINGING														
<input checked="" type="checkbox"/> NIGHT RINGING														

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 88, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL															
<input checked="" type="checkbox"/> ACCESS DENIED															
<input checked="" type="checkbox"/> ORIG DENIED															
<input checked="" type="checkbox"/> IDLE LINE PEF															

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

* ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> TAP CLEARED				
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING—3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
<input checked="" type="checkbox"/> DISABLED (RECALL)								
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY								

KEY MAPPING-22 LINE/FEATURE KEYSET																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/> LINE ASSIGNED																							
<input checked="" type="checkbox"/> DSS STA ASSIGNED																							
<input checked="" type="checkbox"/> AUTO DIAL ASSIGNED																							
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  71  43  61  \*  
 STATION PROGRAMMING MODE  BB

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

FA PORT	
<input checked="" type="checkbox"/> DISABLED	
<input type="checkbox"/> ENABLED	

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK		
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE		
7 <input checked="" type="checkbox"/> SYS SPEED TOLL		
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD		
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG		

8

PERSONAL RINGING			
PHONE 1	PHONE 2	PHONE 3	PHONE 4
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HOLD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING															
<input checked="" type="checkbox"/> DELAYED RINGING															
<input checked="" type="checkbox"/> NIGHT RINGING															

DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 98, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL															
<input checked="" type="checkbox"/> ACCESS DENIED															
<input checked="" type="checkbox"/> ORIG DENIED															
<input checked="" type="checkbox"/> IDLE LINE PEF															

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED				
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYS																							
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8	
<input checked="" type="checkbox"/> LINE ASSIGNED																							
<input checked="" type="checkbox"/> DSS STA ASSIGNED																							
<input checked="" type="checkbox"/> AUTO DIAL ASSIGNED																							
<input checked="" type="checkbox"/> DISABLED																							
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY																							

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  7  4  6  1  
 STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENSION	
LOCATION	

4

PA PORT	
<input checked="" type="checkbox"/>	DISABLED
<input type="checkbox"/>	ENABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK		
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE		
7 <input checked="" type="checkbox"/> SYS SPEED TOLL		
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD		
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG		

8

PERSONAL RINGING			
ZONE 1	ZONE 2	ZONE 3	ZONE 4
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC				
	1	2	3	4
HOLD	B1	B2	B3	
HOLD				

13-14

RINGING ASSIGNMENT FOR LINES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> RINGING														
<input checked="" type="checkbox"/> DELAYED RINGING														
<input checked="" type="checkbox"/> NIGHT RINGING														

\*DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41.

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/> AUTO PRIVACY REL															
<input checked="" type="checkbox"/> ACCESS DENIED															
<input checked="" type="checkbox"/> ORIG DENIED															
<input checked="" type="checkbox"/> IDLE LINE PEF															

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED				
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING-3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYSET																											
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8					
<input checked="" type="checkbox"/> LINE ASSIGNED																											
<input checked="" type="checkbox"/> OSS STA ASSIGNED																											
<input checked="" type="checkbox"/> AUTO DIAL ASSIGNED																											
<input checked="" type="checkbox"/> DYNAMIC LOOP KEY																											

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		



# STATION COS PROGRAMMING REFERENCE TABLE

(Copy this page as required for additional reference sheets)

• Shading denotes station default conditions.

• Check off or enter values chosen for stations being programmed

**IMPORTANT NOTE:** To choose B-field programming buttons on LCD Speakerphones, press B1 then press A1 through A8 to represent B-field buttons.

BASE LEVEL (ITCM)  (7)  (4)  (6)  (\*)

STATION PROGRAMMING MODE (B8)

STATION ID (REF. SYSTEM COS CHART)	
PORT	
STA TYPE	
EXTENTION	
LOCATION	

4

PA PORT	
<input checked="" type="checkbox"/>	DISABLED
<input type="checkbox"/>	ENABLED

	ENABLED	DISABLED
5 <input checked="" type="checkbox"/> VOICE BLOCK		
6 <input checked="" type="checkbox"/> EXECUTIVE OVERRIDE		
7 <input checked="" type="checkbox"/> SYS SPEED TOLL		
9 <input checked="" type="checkbox"/> AUTOMATIC HOLD		
10 <input checked="" type="checkbox"/> MESSAGE WAIT-ORIG		

8

PERSONAL RINGING			
PHONE 1	PHONE 2	PHONE 3	PHONE 4
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

11

PRIME LINE-AUTOMATIC																							
NONE	ITCM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12

RINGING LINE PREFERENCE	
B5	ENABLED
B4	DISABLED

PRIME GROUP-AUTOMATIC			
HOLD	1	2	3
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

13-14

RINGING ASSIGNMENT FOR LINES		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/>	RINGING														
<input checked="" type="checkbox"/>	DELAYED RINGING														
<input checked="" type="checkbox"/>	NIGHT RINGING														

\*DEFAULTS TO RINGING ON ALL LINES FOR STATIONS 10, 17, 20, AND 41

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		

15-18

	NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<input checked="" type="checkbox"/>	AUTO PRIVACY REL														
<input checked="" type="checkbox"/>	ACCESS DENIED														
<input checked="" type="checkbox"/>	DRIG DENIED														
<input checked="" type="checkbox"/>	IDLE LINE PREF														

19

TOLL TABLE ASSIGNMENT																
NONE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

21

* ALL-CALL AND ZONE PAGING				
	ZONE A	ZONE B	ZONE C	ALL-CALL
RECEIVE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ORIGINATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAP CLEARED				
PRESS <input checked="" type="checkbox"/> TO CONTINUE				

20

RESERVE INTERCOM LINKS							
NONE	1	2	3	4	5	6	7
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRESS <input checked="" type="checkbox"/> TO CONTINUE							

22

KEY MAPPING--3 AND 8 LINE KEY SET								
MAPPED KEY	B1	B2	B3	B4	B5	B6	B7	B8
LINE ASSIGNED								
DSS STA ASSIGNED								
AUTO DIAL ASSIGNED								
DISABLED (RECALL)								

KEY MAPPING-22 LINE/FEATURE KEYSET																											
MAPPED KEY	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	B1	B2	B3	B4	B5	B6	B7	B8					
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>																											
LINE ASSIGNED																											
DSS STA ASSIGNED																											
AUTO DIAL ASSIGNED																											
DISABLED																											
DYNAMIC LOOP KEY																											

LINE SELECT KEYS			
1	A1	12	A12
2	A2	13	A13
3	A3	14	A14
4	A4		
5	A5		
6	A6		
7	A7		
8	A8		
9	A9		
10	A10		
11	A11		





**SYSTEM SPEED DIAL INDEX**

SYSTEM SPEED DIAL RECORD			
LOC	NUMBER	LOC	NUMBER
01		31	
02		32	
03		33	
04		34	
05		35	
06		36	
07		37	
08		38	
09		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16		46	
17		47	
18		48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	
30			



PROGRAMMING OVERLAY, 32 BUTTON DSS/BLF  
703804-456

C25	C41	C25	C41	C25	C41
C24	C40	C24	C40	C24	C40
C23	C39	C23	C39	C23	C39
C22	C38	C22	C38	C22	C38
C21	C37	C21	C37	C21	C37
C20	C36	C20	C36	C20	C36
C19	C35	C19	C35	C19	C35
C18	C34	C18	C34	C18	C34
C17	C33	C17	C33	C17	C33
C16	C32	C16	C32	C16	C32
C15	C31	C15	C31	C15	C31
C14	C30	C14	C30	C14	C30
C13	C29	C13	C29	C13	C29
C12	C28	C12	C28	C12	C28
C11	C27	C11	C27	C11	C27
C10	C26	C10	C26	C10	C26

