V CALL —Appears wher voice announcing to another station.

RING —Appears when ringing another station.

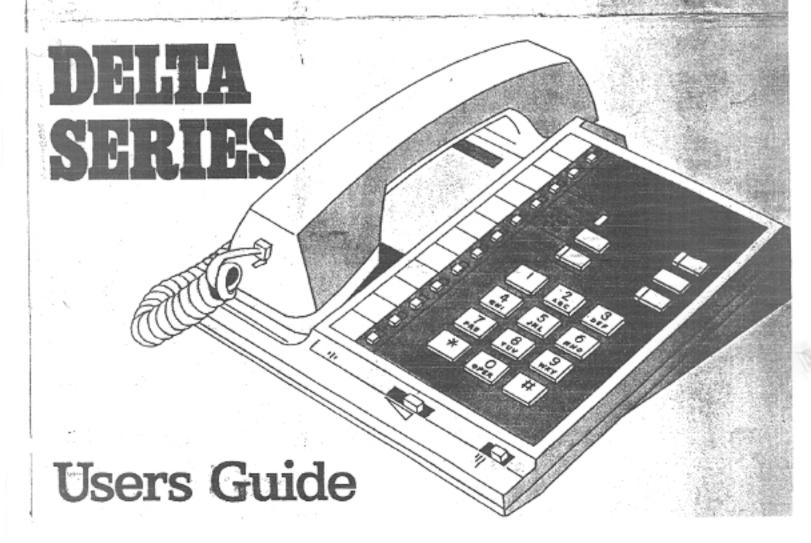
WAIT —Appears when the called station is off-hook and is equipped with call waiting.

BUSY —Appears when the called station is off-hook and is not equipped with call waiting.

MISDIAL—Appears when an invalid extension number is dialed.

DND —Appears when the station called is in the Do Not Distart mode.

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I. Lut nangset.

2. Dial two digit extension number.

3. Speak after tone.

Note: The called party can respond hands-free.

TO RING AN EXTENSION PHONE

Lift handset.

Dial two digit extension number.

Depress Star button.

Note: The called party must lift receiver to respond.

PLACING A CALL ON HOLD

Depress hold button while off-hook.

2. Green LED will flash slowly.

3. Red LED will flash slowly at all other phones.

Depress hold button while on-hook.

Hold/Mute button will light red. You may receive voice announcements at this point but the party will not

Note: For reply capability, depress hold/mute button a second time. Mute may also be used on a fully equipped speakerphone to block outgoing voices.

RETRIEVING CALLS FROM HOLD

 From initiating station depress LED of held call. οř

From another phone depress the Function button.
 Depress LED of held call.

Note: If a held call is not retrieved within a reasonable amount of time a hold recall alarm will sound as a reminder. During hold recall, the green LED will flash rapidly.

TRANSFERRING CALLS—Unscreened

Place call on hold.
 Dial desired extension number.

3. Hang-up.

TRANSFERRING CALLS—Screened

1. Place call on hold.

Dial desired extension number.

Announce call.

If party accepts call, hang-up. If party does not accept call, depress C.O. line key to return to call,

CALL WAITING

To answer an intercom call while already on another call:

After hearing muted ring place original call on hold.

Depress Flash button.

CONFERENCE CALL—TWO OUTSIDE PARTIES

Establish first outside call.

Place call on hold.

Press idle C.O. line key.

Establish second outside call.

Depress Function button.

6. Depress 0.

To split conference call:

Depress Function button.

Depress desired C.O. line. The other call will automatically be placed on hold. To reestablish conference:

Depress Function button.

Depress 0.

UNATTENDED CONFERENCE

Initiate conference as described above.

Depress hold button.

To reenter conversation depress any one of the two C.O. line keys involved in the conference.

CONFERENCE CALL—ONE OUTSIDE PARTY AND TWO INSIDE PARTIES

Establish first outside call.

Place call on hold.

Dial extension telephone.

- 4. When inside party answers instruct them to lift
- Depress Function button.

Depress 0

 To answer a page depress the Function button.
 Dial 4. At this time you will be connected to the pagin. party.

LAST NUMBER DIALED On-hook or off-hook

Depress an idle C.O. line key. Green LED will light:
 After hearing dial tone depress LND button twice.

SPEED DIALING On-hook or off-hook

1. Depress an idle C.O. line key. Green LED will light.

After hearing dial tone depress SPD button.

Dial two digit code representing the desired telephon. number.

SPEED DIAL REGISTRATION

Depress speaker button.

Depress SPD button.

Select storage bin by dialing two digit code.

Dial telephone number to be stored.

5. Depress SPD button.

To enter more numbers repeat steps 3 through 5.

Press speaker to end.

Note: Personal speed dialing bins are numbered O through 09 only. System speed dialing bins are numbered 10 through 99 only. System speed dialing numbers mus be registered at Station #10.

DO NOT DISTURB

To block all calls depress Speaker button.

Depress Function button.

Dial 5. (DND LED will light red)

Depress Speaker button.

Note: To return phone to normal condition repeat above steps.

NIGHT SERVICE

Press Speaker button.

To place system in night mode depress function buttor. from station #10.

Dial 6.

Depress Speaker button.

To place system in day mode depress function button.

Dial 7.

Note: If a DSS is used on system, depress last button to enter night mode.

BACKGROUND MUSIC THROUGH PHONES

Depress Speaker button.

Depress function button.

Dial 8.

Depress Speaker button.

To silence music repeat above steps.

BACKGROUND MUSIC THROUGH EXTERNAL SPEAKERS

Depress Speaker button.

Depress Function button from station #10.

Dial 9 and either 0 (all speakers), 1 (zone 1), or 2 (zone

Depress Speaker button.

To silence music, depress function button followed by 9.

DOOR PHONE

To activate door phone depress call button on unit.

To answer, lift receiver of an assigned phone. To call door phone dial door phone as follows:

Door Phone 1 Door Phone 2 81

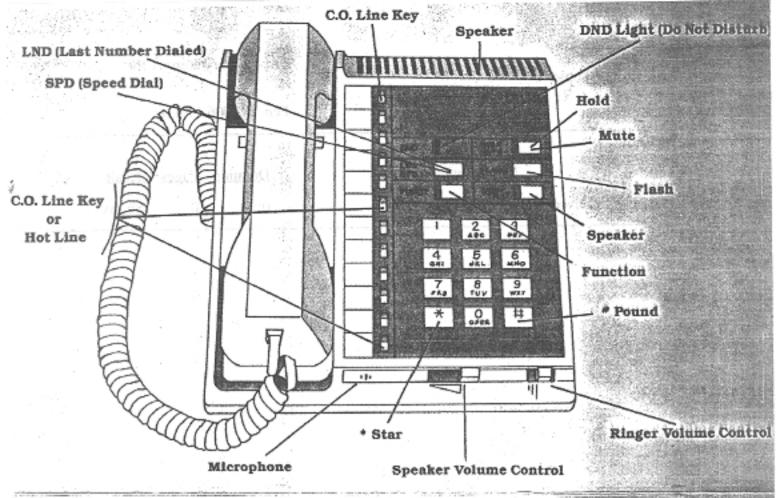
MIXED DIALING Rotary systems only Note: This is used when the system is utilizing rotary trunks and the caller's long distance service requires touch tone signalling.

Dial the long distance service.

Depress the Star (*) button. This will cause further dialing to go out touch tone.

To answer a call ringing on another phone in your pickup group:

 Lift handset. Depress Pound (") button.



Congratulations on your purchase of a Delta Series Electronic Key telephone system. On the following pages you will find instructions on the use of each feature available on your new telephone system. The information in this guide applies to the Delta 514,824 and 1232.

ANSWERING AN OUTSIDE CALL

- Lift handset at a ringing station.
- Lift handset at a non-ringing station.
- 2. Depress the C.O. line key of the rapidly flashing red LED. LED will light steady green.

ANSWERING A RINGING INTERCOM CALL

- From an idle station lift handset.
- When engaged in an outside call, place call on hold.
- Depress Flash button.

PLACING AN OUTSIDE CALL Off-hook dialing

- Lift the handset.
- Depress an idle C.O. line key. Green LED will light.
- 3. After hearing dial tone dial the desired telephone number.

Note: Depressing the flash key will return dial tone on the same C.O. line key.

PLACING AN OUTSIDE CALL On-hook dialing

- Depress an idle C.O. line key. Green LED will light.
 After hearing dial tone dial the desired telephone
- number.
- 3. Lift the handset when the called party answers.

ON HOOK MONITOR

- While on outside call, depress speaker button.
- Place handset in cradle.

partu places non on hold

Lift handset to resume conversation. Note: On-Hook Monitor is generally used when an outside

CONFERENCE CALL—THREE INSIDE PARTIES

- Dial extension telephone.
- Place call on hold.
- Dial second extension telephone.
- 4. When inside party answers instruct them to lift
- Depress Function button.
- Depress 0.

INTERNAL ZONE PAGE

- Lift handset.
- Depress Function button.
- Dial zone number as follows:

All Zones	7 13
Zone 0	20
Zone 1	21
Zone 2	22
Zone 3	23
Zone 4	24
Zone 5	25
Zone 6	26
Zone 7	27

- Make announcement.
- Hand up, or wait for paged party to 'meet you' (see Meet Me Page).

31

EXTERNAL ZONE PAGE

- Lift handset.
- Depress Function button.
- Dial zone number as follows: 30

All Zone Zone 1

HOT LINE REGISTRATION AND OPERATION

1. Depress Speaker button.

Dial 01

Depress vacant C.O. line key. (Line keys 6 through 12 only.) This will be your hot line button.

Dial two digit extension number you desire to register.

Depress Pound (*) key. 6. Depress Speaker button.

 Repeat procedure for additional hot lines.
 Note: To call a registered extension using a hot line, lift handset and depress hot line button. Speak after the tone.

DSS REGISTRATION AND OPERATION

The DSS is capable of performing three functions: A) DSS (Direct Station Selector)-Allows the user one button access to another station. To program a button as a DSS:

Depress Speaker button.

Dial 01.

Depress vacant DSS button.

Dial two digit extension number you desire to register.

Depress Pound (*) key.Depress Speaker button.

7. Repeat procedure for additional DSS buttons.

Note: To call a registered extension using a DSS button, lift handset and depress DSS button. Speak after the tone.

To transfer to a registered extension while on an outside call, depress desired DSS button this will automatically put call on hold. Call may then be announced or the transfer completed. To complete disconnect by replacing handset in cradle.

To enter night mode from DSS, depress last DSS button.

B) BLF (Busy Lamp Field)—Allows the user to identify the status of stations in the system. If the DSS button exhibits a steady red light, the station is busy. If the DSS button flashes, the corresponding station is in the Do Not Disturb mode. This feature is automatically activated during DSS registration.

C) Speed Dialer-Allows the user one button access to a system speed dial number. To program a button as a speed dlaler:

1. Depress Speaker button.

Dial 01.

Depress vacant DSS button.

Depress SPD button.

Dial two digit system speed dial bin number (10 through 99 only).

6. Depress Pound (*) key. Depress Speaker key.

8. Repeat procedure for additional DSS buttons.

Note: To use speed dialer, lift handset, depress idle C.O. line key (receive dial tone), then depress desired speed dialer button.

DELTA DISPLAY TELEPHONE

The following features are unique to the Delta Display Telephone.

TIME/DATE/DAY

The time, date, and day are displayed when the station is not in use.

TO SET TIME VALUES

1. Lift handset at station 10.

2. Dial 09.

Dial hour in military format (eg. 10:23 A.M. would be 1023, 10:23 P.M. would be 2223).

 Dial minutes (two digits). 5. Dial month (two digits).

6. Dial day of month (two digits).

 Dial day of week (O=Sunday, 1=Monday, 2=Tuesday, etc.).

8. Dial year (two digits). 9. Dial #

Note: If busy tone is heard during entry, an error has occurred and the entry must be made from the beginning with new intercom tone.

DIALED NUMBER VERIFICATION

Manually or speed dialed numbers will appear for verification by user.

CALL DURATION DISPLAY

On outside calls (incoming or outgoing) a timer will automatically be activated, displaying the duration of the call in minutes and seconds. On outgoing calls only, there is a five second delay before the timer is activated. When the call is terminated, the duration display will freeze for 10 seconds. When a call is transferred or retrieved from hold, the timer resets to 00:00. Calls over one hour in length will cause the display to flash.

CONFERENCE DISPLAYS

When a station is engaged in a conference with two outside parties, the abbreviation CONF will appear. Conferences involving inside parties will display the relevant station numbers.

INTERCOM CALL DISPLAYS

ABSENCE MESSAGES

Note: There are up to ten absence messages which may be left by either standard or display telephones. (Naturally, the messages may only be retrieved by display sets.) Following the absence message, a number, consisting of up to four digits, may be entered to signify a time, date, room, or extension number.

The messages which may be left are

DND (+NUMBER)=0VACATION (+NUMBER)=1 CALL EXT (+NUMBER)=2 LUNCH (+NUMBER) = 3MEETING (+NUMBER)=4

=8 ±9

= B

LEAVING AN ABSENCE MESSAGE

Lift handset.

Depress Function button.

3. Diai 5.

Dial number corresponding to desired message (eg. dial 3 to leave the message LUNCH).

Dial up to four digit number (optional).

Depress # key.

CLEARING AN ABSENCE MESSAGE

Lift handset.

Depress Function button.

3. Dial 5.

LEAVING A CALL BACK MESSAGE

Lift handset.

Dial extension number.

If party does not answer depress # key. The called station will display CALL EXT followed by the station number of the party requesting the return call.

Note: The message will be cleared when the station has engaged in a handset to handset conversation with the other party. Either party may initiate the message cancelling call.

CALL WAITING

When called by another station, the calling party's station

DE LA

INSTALLATION
MANUAL

GALAXY COMMUNICATIONS (DELAWARE) CORPORATION

INTRODUCTION

Congratulations on your purchase of a Delta Series Electronic Key telephone system. The Delta Series utilizes quality components and has been assembled under a high degree of quality control. Properly installed and treated, this Delta system will provide years of trouble-free service.

This document is meant to assist you in the installation and maintainance of the system. If you have not yet installed a Delta system, please read the entire manual before starting the installation.

Appendix A contains Programming Sheets which will guide you in customizing this system based upon your customer's requirements. Your familiarity with and use of these sheets will allow you to provide your customer with all the benefits of the various features that the Delta Series offers.

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DELTA SERIES INSTALLATION INSTRUCTIONS

CAUTION

The Delta series is a modern, sophisticated, high quality series of Electronic Key Telephone Systems. As such it utilizes some internal components based on CMOS technology. If reasonable care is exercised in the handling parts of the system, a smooth and trouble-free installation is assured. Reasonable care means you should:

1. Properly locate and ground the KSU.

 Take care that you do not discharge static electricity to the circuit boards. If you suspect the presence of static electricity in the area, wear a ground strap.

 Keep the additional circuit boards in their static protective bags until needed.

4. Make sure that you, the KSU and the additional circuit boards are at the same potential (ground) when installing or removing them.

Handle the boards by the edges, avoiding contact with the components or conductors.

6. Make sure the system does not get wet.

* * * * * *

GENERAL

Installation of the Delta Series electronic key telephone systems may be broken down into the following areas:

- Cabling
- KSU Set-up and Mounting
- 3. Terminal Installation
- 4. Power-up and Initialization
- Programming
- 6. System Testing
- 7. Cutover and Final Testing

The following describes the requirements to be met for a smooth and successful installation and cutover of a Delta system.

CARLING

The use of two pair twisted cable is strongly recommended. Common four conductor (quad) cable is not recommended, since the individual pairs are not twisted. Three pair cable may be used and requires no special treatment of the spare pair.

At the station location one pair of the cable should be connected to the green and red and the other pair to the yellow and black wires of a 625-A4 modular connecting block. If the cable used does not consist of a white/blue and a white/orange pair, other colors will have to be substituted. If this is done, it is imperative that one pair be connected to the green and red wires of the mounting block and another pair be connected to the yellow and black wires.

The splitting of pairs will, in most cases, result in data noise being coupled to the audio portion of the station.

Some cables do not have a tracer color on the white wires, and care should be taken when connecting them so as not to separate the pairs.

See Figure 1 for recommended connections.

If "Guad" must be used, see Figure 2 for correct conductor assignments. Check EACH cable against this figure as different manufacturers and even different production runs may arrange the conductors differently.

Do not connect "Quad" wire color for color to the station blocks UNLESS it agrees with Figure 2. You will be able to match at least two colors.

KSU SET-UP and MOUNTING

Before mounting the KSU, any additional printed circuit boards required should be installed in it. Remove the KSU cover and mount the boards as shown in Figures 3 or 4 using the standoffs and screws packed with the additional boards.

Next, select a suitable location for mounting the KSU. This location should be:

1. Centrally located (if possible).

A wall, free of vibration.

3. Away from toxic or corrosive fumes.

4. Away from potential water leaks.

 Close to a separately fused 117 Volt, 15 Ampere electrical outlet.

Near a cold water pipe ground.

- 7. Within 25 feet of the Telco interface.
- In an area with suitable lighting and access for installation and maintenance work.

Although the KSU does not dissipate much heat, a reasonable amount of ventilation should be available. Avoid locations where material is stored, as access and ventilation may be restricted in the future.

Locations near high-voltage equipment should be avoided. Such equipment includes photocopiers, television sets, etc.

Locations likely to generate static electricity should also be avoided. One of the common sources of static electricity build-up is the combination of synthetic carpeting and a low-humidity environment.

The KSU should be mounted using the four keyhole openings on the base plate. Local codes may require the KSU to be mounted on a fire retardant wood or composite board. Mount using appropriate hardware for the wall selected.

When the KSU is mounted, connect the cold water pipe ground using 12 guage or larger wire.

The height of the KSU should be such as to allow easy access as well as to discourage its use as a shelf or coffee table.

TERMINAL INSTALLATION

The station feed cabling from the KSU will consist of one or more 25 pair cables with male connectors at the KSU end. These should be terminated on 25 or 50 pair blocks mounted close to the KSU. If the blocks are not mounted in an enclosure, approved protective covers should be provided to prevent possible shorting of the conductors.

Station cables may then be connected directly to the KSU feed blocks. They should be connected in such a manner as to provide a logical sequence of numbers consistant with the locations of the stations. See Table 1.

While it is convenient for purposes of initial trouble-shooting to cross-connect the station and KSU cables, this is not necessary. Because the Delta Series features flexible numbering assignments, changing a station's extension number can be accomplished through programming rather than physically reterminating its associated cable.

MISCELLANEOUS

At this time music on hold, background music, external paging and doorboxes may be hooked up. See Figures 5 through 7.

If power-up and initialization is not to be done at this time, replace the KSU cover.

POWER-UP and INITIALIZATION

Plug the memory support battery into the connector on the upper left of the Common Control printed circuit board (CC-B or CC-C).

With the KSU mounted, the cabling complete, the stations installed, the cover off and the power switch in the OFF position, plug the line cord into the outlet. Locate the Write Enable/Write Protect switch located at the top of the Common Control printed circuit board and place it to the left (WE) position. Next, turn the power supply switch ON and observe the green "Run" LED on the Common Control board. When the LED to flicker, the system has initialized. configuration of the system upon initialization may be found on the program sheets (Appendix A) under the heading "Default". Now, throw the Write Enable/Write Protect switch to the right (WP) and check the stations for intercom dial tone.

NOTE: Delta systems check each position for a connected station or DSS upon power-up. If no station is connected, the position is disabled and stations and DSSs later plugged in will not work unless the Write Enable/Write Protect switch is turned to the left (WE) position until the "RUN" LED lights and then returned to the WP position. KEEP THIS IN MIND WHEN TROUBLE SHOOTING INITIAL CABLING PROBLEMS!!!

NOTE: With the Write Enable/Write Protect switch in the WE, position the system will be in the "off-line" programming mode. In this mode only station 10 will have dial tone, and it will function only as a data entry device.

PROGRAMMING

The Delta Series systems all utilize the same software, and programming is performed in an identical manner on all systems.

Data entry for the individual programming areas is performed in a similar manner for each area.

To enter data, intercom dial tone must be heard. This is most easily accomplished by pressing the speaker button. Next, the program area is entered and then the data. Each entry (except speed dial numbers) is terminated by pressing the pound key (#). After each entry you will hear one of three tone signals.

Receipt of steady intercom dial tone indicates that the entry has been accepted and another area (or the same) may be entered.

If one short burst of tone is heard the system is waiting to receive additional entries for the feature involved. When performing On-Line programming, with the exception of COS/ICM Number assignment, additional entries must be made now. Reentering a serial entry programming area will erase previous entries after the first new entry is accepted. If you are finished and do not want to make additional entries, press the Flash Key.

If during data entry busy tone is heard, the system has detected an invalid entry. Check the proposed entry for correctness and reenter from the beginning after pressing the Flash Key. Serial On-Line entries described above must be reentered in total.

There are three types of programming performed on the Delta system.

One is Off-Line Programming. This is used to enter major system paramaters and, while it is being performed, call processing is suspended. All Off-Line programming is performed from the station in position 10.

The second is On-Line Programming. This is used to make changes such as flexible ring assignments and does not affect the system's operation.

The third is Station User Programming and is covered in the station user's guide.

Following is a description of the programming areas covered by off-line programming. It is presented in the same sequence as the program sheets found in Appendix A.

If you are not familiar with the Delta system programming, use Appendix A while reading the programming descriptions. The Program sheets may be filled out at any time and provide an aid to programming as well a permenant record of the system's configuration.

NOTE: In the following descriptions the term "station number" is used for clarity. In actual programming the position number is entered as shown on the program sheets. These numbers will be the same in most installations unless the intercom numbers (extensions) have been changed.

To perform Off-line programming, set the Write Enable/Write Protect switch to the Write Enable (WE) position.

LINE KEY ASSIGNMENT

This area is used to enter information for each of the twelve Line Keys used for CO, Centrex or PABX lines. If lines 6 through 12 are used, they MUST be assigned to a tenant group BEFORE they will work (see Tenent Line Assignment) If any lines are not connected or are removed from the system, they may be deleted in this program area. Once deleted, Line Keys 6 through 12 may be reused as Hot Lines (see Hot Lines).

HOLD RECALL TIME -

This sets the time in seconds (001 to 180) before a call on hold will recall to its station. By setting this value to 000 the hold recall feature may be disabled.

FIXED OR FLEXIBLE RINGING

This area defaults to Flexible Ringing. With flexible ringing, any number of stations can be set-up to ring on any number of lines through On-Line programming. If Fixed Ringing is selected, a maximum of 6 stations can be made to ring through Off-Line programming for all their lines.

FIXED DAY RINGING

In this area a maximum of six stations can be set to ring when an incoming call is received on any of their lines.

FLEXIBLE DAY RINGING

(See On-Line Programming) This allows any number of stations to ring in on all their lines and is required for split or individual ring assignment.

NIGHT RINGING

This area is used to assign which stations will ring when station 10 places the system in night mode. A maximum of 8 stations may be entered.

DSS CONSOLE and STATION

In this area the position numbers of the DSS and the associated station are entered. All Delta systems may have a maximum of 2 DSSs.

PABX TRUNK ACCESS CODE

This is used to identify a single-digit access code used to place an outside call on PABX or Centrex lines. When the system recognizes this digit, it inserts a brief pause to allow secondary dial tone to be received before pulsing out the destination number. This allows the use of speed dialing and last number redial on PABX or Centrex lines.

TENANT STATION ASSIGNMENT

This area is used to assign a range of stations to a tenant group. For single station entries this range may begin and end with the same number. There are four tenant groups (0-3). All stations are initially assigned to tenant group 0. A station can only belong to one group.

TENANT LINE ASSIGNMENT

This area is used to assigned the lines to the four tenant groups. Initially lines 1 through 5 are assigned to tenant group 0. Lines 6 through 12 are not assigned. These lines must be assigned to a tenant group when they are added before they can be accessed.

A CO line may be assigned to any number of tenant groups. Because of this, lines 1 through 5 may have to be cleared from group 0 before assigning them to another tenant group.

UNIVERSAL ANSWERING

When tenant service is applied, this area allows any tenant to answer calls on any of the other tenant's lines. This is a system-wide feature.

HOT LINES

This area is used to reassign Line Keys for use as Hot Lines if they had previously been assigned as working lines. Only Line Keys 6 through 12 may be used as Hot Lines. If desired, the Hot Line feature may be cleared from all Line Keys through this procedure.

INTERCOM SPEECH PATHS

In this area additional speech paths in the 824 and 1232 are enabled. In the 824 these are numbers 2 and 3 and in the 1232 these are numbers 2,3,4 and 5.

STATION NUMBER AND C.O.S. ENTRY

This area is used to change a station's intercom number and/or its Class Of Service. Care should be exercised to avoid duplicating the intercom numbers. There are five classes of service which provide the following:

COS STATION PRIVILEGES/RESTRICTIONS

- 0 Allowed all types of calls- not restricted.
- 1 Not allowed calls beginning with 0 (overseas and operator assisted calls).
- 2 Not allowed toll calls based upon a 30 entry area code list.
- 3 Not allowed toll calls except to those areas codes in a separate 5 entry list.
- 4 Not allowed to originate or dial calls on CO Lines.

A station's class of service does not override any access restrictions in effect because of tenant assignment.

RESTRICTION TABLE USAGE

Here the local toll rule is entered (If toll calls are preceded by a 1 or not) and the usage of the COS 2 toll table is defined (allow or deny).

TOLL TABLE- COS 2

This is used to enter up to 30 three digit numbers which will apply to CO calls placed by stations which have a Class of Service 2.

ALLOWED AREA CODE TABLE- COS 3

This is used to enter up to 5 three digit numbers which will apply to CO calls placed by stations which have a Class of Service 3.

UNATTENDED CO to CO CONFERENCING

This is used to assign a maximum of two UNUSED station positions to allow Unattended CO to CO Conferencing.

AUTOMATIC CALL DIVERSION

This area of programming is used to determine which CO line(s) will be automatically answered when the system is in the night mode and which line(s) will be used to place the outgoing call. In addition, it is used to identify which station and associated personal speed dial number will be used to place the diverted call.

PAGING

This programming area is used to enable (or disable) the internal paging and the two external paging zones.

BACKGROUND MUSIC

This area is used to allow background music to be available to the stations and/or the external paging zones. Background music through the external page may be controlled by station 10.

NUMBER OF DOOR BOXES

This asks how many door boxes will be on the system (one or two) If the optional card is removed any reason, set this value to 0.

DOOR BOX STATIONS

In this area the number of stations which are to ring at one time, as well as a listing of which stations which are entered. A maximum of eight stations may ring simultaneously and a maximum of 16 station numbers be entered. In operation, the system will ring the FIRST free station or stations entered.

ON-LINE PROGRAMMING

On line programming is performed with the system in operation.

All entries are made from the individual stations once the system has been "unlocked". Entries made from a station affect only that station.

To "unlock" the system, the entry of 991# must be made by the station in position 10. In most cases this will also be extension 10. After the entries are made, this programming area may be restricted by entering 990# from extension 10.

DESCRIPTION	CODE	DEFINITION
ON LINE PROGRAMMING	99 0/1 #	0= Disable 1= Enable
PAGING/PICKUP GROUP	92 0-7 #	0-7= Group Number
DAY RING - ALL COs	93 0/1 #	0= Disable 1= Enable
DAY RING by CO LINE	94 Lk 0/1 #	Lk= Line Key 0= Disable
DISPLAY PHONE	95 0/1 #	0= No 1= Yes
CALL DURATION SIGNAL	96 0/1 #	0= Disable 1= Enable
CALL WAITING	97 0/1 #	0= Disable 1= Enable

SYSTEM TESTING

The system should now be tested for basic operation prior to connecting the CO Lines. Verify that all the programmed features function as programmed. Unattended CO to CO Conferencing and Call Diversion will not work until the CO Lines are connected. Use the program sheets to confirm proper assignment of Tenants, Lines, etc.

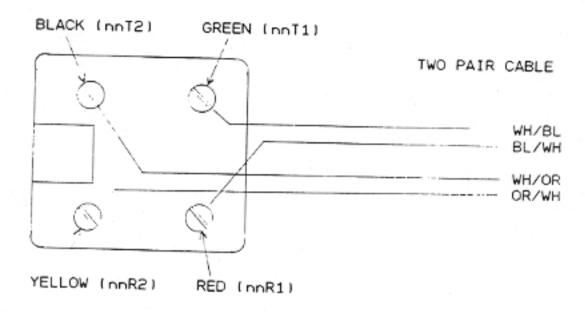
CUTOVER AND FINAL TESTING

Once you are satisfied that the system is properly installed, connect the CO and PABX Lines to the modular connectors in the KSU. See Figure 8.

Check for proper operation of the system in both placing and receiving calls. Unattended CO to CO Conferencing and Call Diversion may now be tested. For Call Diversion to work, the system must be in the night mode. Neither feature will function properly if there is a tip and ring reversal.

With the system now up, make sure that the customer is familiar with the operation of the system. While the User's Guide provides him with what he needs to know to use the system, a few minutes spent providing personal instruction will result in a more confident and satisfied customer. Confident, informed and satisfied customers will call you up with fewer unnecessary questions and more referrals.

STATION BLOCK CONNECTIONS USING PAIR WIRING

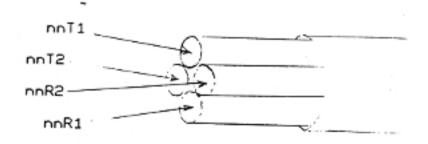


NOTES: 1. "nn"= the Station's Position Number

Any spare wires should be taped and stored.

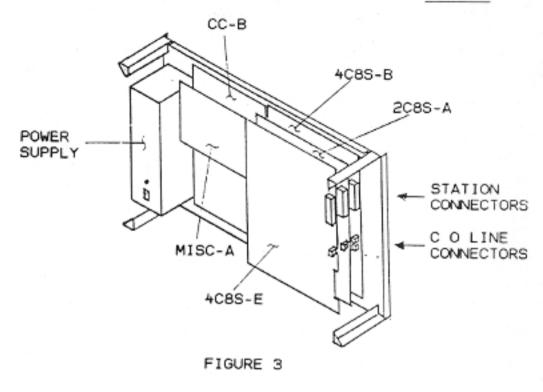
FIGURE 1

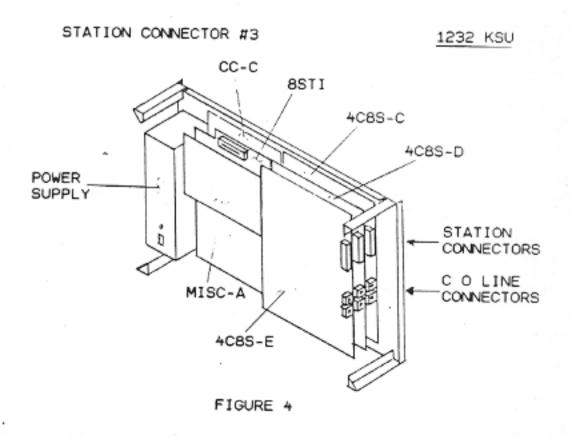
"QUAD" WIRE CONDUCTOR ASSIGNMENTS



NOTE: See Figure 1 for terminal designations.

FIGURE 2





PAGE 12

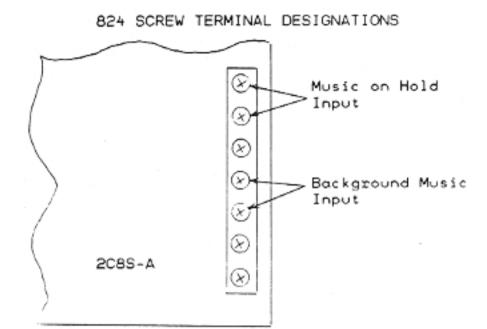


FIGURE 5

1232 SCREW TERMINAL DESIGNATIONS

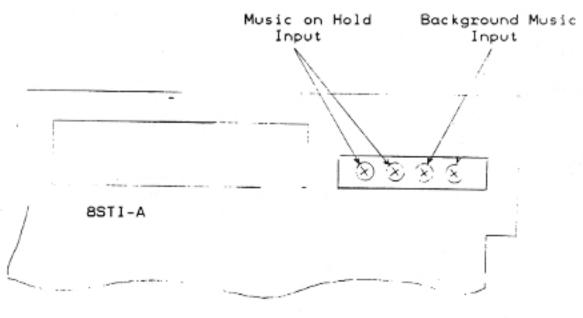
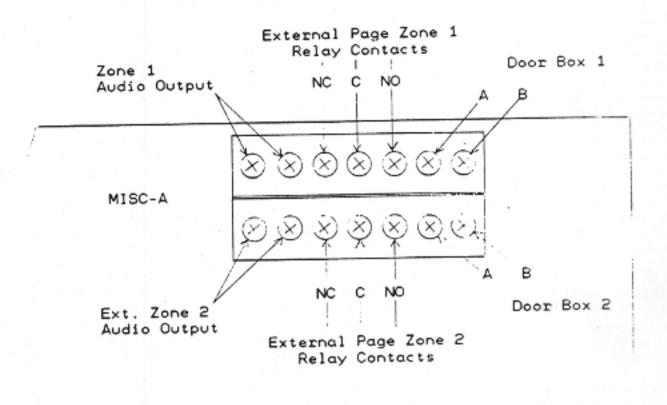


FIGURE 6

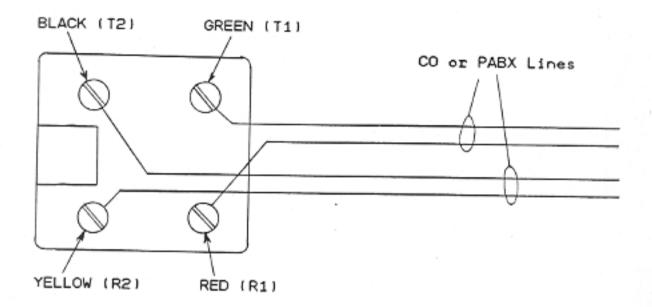
MISC-A SCREW TERMINAL LOCATIONS



NOTE: NC= Normally Closed C= Common (Armature) NO= Normally Open

FIGURE 7

CO/PABX TERMINAL BLOCK WIRING



NOTE: 1T and 1R represent the first, third, fifth, etc. Lines. These are connected by a two pair modular to modular mounting cord to the boards of the KSU.

This block may be provided by the local operating telephone company as an RJ14C.

If an RJ21X is ordered or a PABX line is used this block must be wired by the installer.

If the Tip and Ring are reversed the Unattended CO to CO Conferencing will not work. Correct such a reversal on this block.

FIGURE 8

DELTA SERIES KSU STATION CABLE DESIGNATIONS

WIRE	TERM		824	CONNECT	ORS	1	232 CON	NECTORO	
CONN	COLOR	CLIP	4CS-B		2C8S-B	4C8S-C	4C8S-D	8STI	
_26	WH/BL	1	10T1	18T1	2611	10T1	18T1	The second second	14C8S-E
1	BL/WH	- 2	10R1	18R1	26R1	10R1	18R1	26T1	3411
27	WH/OR	3	10T2	18T2	26T2	10T2	1872	26R1	34R1
2	OR/WH	4	10R2	18R2	26R2	10R2	10R2	2612	3412
					LONE	TURE	TOKE	26R2	34R2
28	WH/GN	5	1171	19T1	27T1	11T1	1971	2711	
3	GN/WH	6	11R1	19R1	27R1	11R1	19R1	The second secon	3571
29	WH/BN	7	11T2	1972	2772	1112	1972	27R1	35R1
4	BN/WH	8	11R2	19R2	27R2	11R2		2712	3512
					ETRE	TIRE	19R2	27R2	35R2
30	WH/SL	9	1211	20T1	28T1	1211	2074	2071	
5	SL/WN	10	12R1	20R1	28R1	12R1	2071	2811	36T1
31	RD/BL	11	12T2	20T2	28T2	1272	20R1	28R1	36R1
6 :	BL/RD	12	12R2	20R2	28R2	12R2	2012	2812	3612
				LUITE	EORE	IZRZ	20R2	28R2	36R2
32	RD/OR	13	13T1	2111	29T1	1371	0474		
7	OR/RD	14	13R1	21R1	29R1	13R1	2171	29T1	37T1
33	RD/GN	15	13T2	2172	29T2		21R1	29R1	37R1
8	GN/RD	16	13R2	21R2	29R2	1312	21T2	2912	3712
				LANC	EFRE	13R2	21R2	29R2	37R2
34	RD/BN	17	14T1	2271	30T1	11.71			
9	BN/RD	18	14R1	22R1	31R1	14T1	22T1	30T1	38T1
35	RD/SL	19	14T2	2212	31T2	14R1	22R1	30R1	38R1
10	SL/RD	20	14R2	22R2	30R2	1412	2212	3012	3812
			27772	EERE	SURZ	14R2	22R2	30R2 :	38R2
36	BK/BL :	21	15T1	23T1	31T1	457.		- 1	
11	BL/BK	22	15R1	23R1	31R1	1511	23T1	31T1	39T1_
37	BK/OR	23	15T2	2372		15R1	23R1	31R1	39R1
12	OR/BK I	24	15R2	23R2	3172	1572	2312	31T2	39T2
			20116	EUNE	31R2	15R2	23R2	31R2	39R2
38	BK/GN	25	16T1	2471	2274	4 (74			
	GN/BK	26	16R1	24R1	3271	1671	24T1	32T1	40T1
	BK/BN	27	16T2	24T2	32R1	16R1	24R1	32R1	40R1
	BN/BK	28	16R2	24R2	3212	1612	2145	32T2	40T2
			LUKE	CHRE	32R2	16R2	24R2	32R2	40R2
+0	BK/SL	29	17T1	2574	227.				
	SL/BK	30	17R1	2511	33T1	1771	25T1	33T1	41T1
	YE/BL		17T2	25R1	33R1	17R1	25R1	33R1	41R1
_	BL/YE			2512	3312	1712	25T2	33T2 ;	41T2
		JC	17R2	25R2	33R2	17R2	25R2	33R2 I	41R2

NOTE: Remaining conductors are spare.

TABLE 1

DELTA SERIES SPEAKERPHONE MODULE INSTALLATION

GENER AL

The speakerphone module is used to convert any Delta Series station to a speakerphone. The conversion may be made in the field although it is easier to do "on the bench".

To convert a station to a speakerphone you will require a Phillip's screwdriver and a speakerphone kit (U-EB-100-HF-A). This kit consists of a small printed circuit board, a flat-flexible interconnecting cable and two self tapping screws.

INSTALL AT ION

- Remove the two screws on the bottom of the station and separate the upper housing from the base by swinging the upper housing upward and then disengaging the two tabs in the front of the station. Release and disconnect the flat-flexible cable from the keyboard by raising the outer portion of the connector housing and removing the cable. See Figure 1a.
- 2. Place the HFU-A circuit board inside the upper housing between the depressions for the handset with the component side facing the plastic. Make sure the slots in the board align with the molded plastic guides of the upper housing. Secure the board with the two self tapping screws. Note: Do not overtighten the screws.
- 3. Remove the short piece of flat-flexible cable from connectors CNI and CN5 and cut the single wire jumper J2 located to the left of the large integrated circuit. Insert the cable from the HFU-A board into CNI and the cable from the keyboard back into CN4. Be sure that the blue stripes face the back of the station and that the connectors are locked with their outter housings pushed down toward the station's circuit board (Figure Ib).
- 4. Check to make sure the black rubber web around the microphone sticks up 1/16 in, above its plastic well. If it does not, gently pry it up. If the rubber web does not properly seal with the upper housing, erratic voice switching may occur.
- Reassemble the station taking care that the volume control slider is properly positioned. When properly positioned the arms of the volume control slider will grasp the volume control allowing it to be moved in either direction.

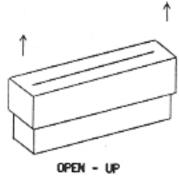
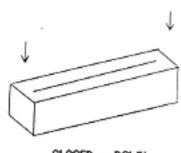


Figure la



CLOSED - DOWN

Figure lb

DELTA SERIES FUNCTIONAL SPECIFICATIONS

DESCRIPTION	824	1232	NOTE
Maximum number of CO/PABX Lines Basic number of CO/PABX Lines	8	12	1
Maximum number of Stations	24	32	2
Basic number of Stations	16	24 6	5
Number of Intercom Talk Paths Number of Door Boxes		Max.	
Number of DSSs		Max.	1
Number of Unattended CO-CO Conf.s		Max. Max.	3
Number of Page/Pick-up Zones Number of External Page Zones	_	Max.	4
Number of Tenant Groups		Max.	
Number of System Speed Dial No.s		Max.	
Number of Personal Speed Dial No.s Maximum number of Hot Lines		tation tation	2
Number of Simul. Call Diverted Lines		Max.	5

- Notes: 1. Each Unattended CO to CO Conference and DSS requires one unequipped station position.
 - Line Keys 7 through 12 may be used as EITHER CO Line Keys OR Hot Lines.
 - 3. Plus Internal All Call
 - 4. Plus External All Call
 - Each Call Diverted Line requires an outgoing line and one CO to CO Conference position.

824 and 1232 PHYSICAL AND ELECTRICAL SPECIFICATIONS

	22" W X 14 3/16" H X 4 5/8" D
Weight	
Temperature Range	0-40°C, 32-104°F
Humidity Range	30-85% non-condensing
Station Loop Resistance -	40 Ohms Maximum
Station Wiring	Two Pair
KSU Station Connector	25 Pair Female "Amphenol type"
Data Transmission	Digital
Voice Switching	CMOS Space Division
CO Line Addressing	Dial Pulse or DTMF
CO Line Connection	RJ14C
Power Requirements	117 VAC ± 10%, 50/60 Hz.
Power Consumption	824= 0.6A Av. 1232= 0.8A Av.

All specifications are subject to change without notice.

LIMITED WARRANTY

Galaxy Communications (Delaware) Corporation warrants to its distributors that products manufactured by Galaxy are free from defects in material and workmanship. Galaxy's obligation under this warranty is limited to repairing or replacing, at Galaxy's option, the part or parts of the products which prove defective in material or workmanship within eighteen (18) months from the date of manufacture by Galaxy.

Date of manufacture is defined as the date stamped on the individual piece of equipment by Galaxy and will vary from the date of purchase. Products may only be returned in accordance with the document GALAXY REPAIR PROCEDURES.

BK 306

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APPENDIX B

FEATURE DESCRIPTIONS

CONTENTS

Add-On Conferencing B1
All Call B1
Automatic Answer B1
Automatic Call Diversion B1
Background Music B2
Call Duration Signal B2
Call Monitoring B2
Call Pick-up B3
Call Splitting
Call Transfer B3
Call Waiting B3
C.O. Flashing B4
C.O. Line Reastriction
Dial Pulse/DTMF Capability
Dial Pulse to DTMF Switching B4
Distinctive Ringing
Do Not Disturb
Door Box 85
DSS/BLF Console
Dual Color LEDs B6
Exclusive Hold
External Background Music
External Paging
Full Duplex Talk-Back
Group Pick-Up B7
Hold Recall B8

DELTA SERIES FEATURE DESCRIPTION

ADD-ON CONFERENCING

This feature allows any station user to add a third party into an existing conversation.

It is performed by placing the first party on hold, establishing a connection with the third party and then pressing the Function button and dialing 0.

No programming is required for this feature.

ALL CALL

This feature allows any station to page all of the idle stations regardless of which paging zone they are in.

All call is accessed through the intercom by pressing the Function button and dialing 1.

This feature requires no programming once internal paging is enabled.

AUTOMATIC ANSWER

This standard feature allows an incoming or transferred C.O. or a tone signalled intercom call to be answered by simply picking up the receiver of the ringing station.

No programming is required for this feature.

AUTOMATIC CALL DIVERSION

This programmable feature allows the system to answer an incoming call, place an outgoing call on another C.O. line to a predetermined number and "patch" the calls together.

This feature is activated by placing the system in the night mode. A maximum of two incoming predetermined CO lines may be call diverted with this feature. The incoming and outgoing C.O. lines, personal speed dial locations and associated stations are programmed into the system, usually at the time of installation. Each call diverted line uses one C.O. to C.O. conferencing circuit when in use. See: Unattended CO to CO Conferencing.

BACKGROUND MUSIC -OPTIONAL

If a music source is provided, the music may be sent out through the station speakers.

The music may be turned on and off from each station by pressing Function and the digit 8. Paging, Voice Announcing, Call Monitoring and ringing will interrupt the background music.

No additional equipment, except for the music source, is required for this feature.

This feature is enabled through system programming which is usually done during system set-up.

CALL DURATION SIGNAL

This is a per station programmable feature which will signal an originating station to remind the user of the duration of an outside call.

Every two and one half minutes a signal consisting of three short tone bursts is automatically sent to the station.

This feature is programmed from the individual stations affected.

CALL MONITOR

This feature allows any station to monitor a call with the handset in its cradle.

To monitor a call the speaker button is pressed and the handset is returned to the cradle. When monitoring a call the handset must be picked up in order to be heard by the other party. To disconnect from a call being monitored, press the speaker button again.

No programming is required for this feature.

CALL PICK-UP

This feature allows any station user to answer incoming calls which are flashing but not ringing on their station.

The station picking up the call goes off hook and presses the flashing line key.

No programming is required to enable this feature.

CALL SPLITTING

This feature allows a station on a conference with two outside calls to talk with either of them separately.

While on a CO conference, this is performed by pressing the function button and then the line key of the desired line. The other line will be placed on hold while the first line is being consulted. The conference may be resumed by pressing the Function button and then dialing the digit zero.

No programming is required for this feature.

CALL TRANSFER

This feature allows any station to transfer a call to another station in the system.

A call transfer is performed by pressing the hold button and dialing the desired station's intercom number. The call may then be announced and the handset hung up.

No programming is required for this feature.

CALL WAITING

This per station programmable feature allows a station to be notified when a second call is waiting.

When a busy station programmed for call waiting is called on the intercom, the muted call waiting signal is sent through the station's speaker. The calling station will hear four tone beeps to indicate that the called station has the call waiting feature. Once the call in progress is terminated or placed on hold, pressing the flash button will connect the station with the waiting intercom call.

This feature is programmed from the individual stations affected.

C.O. FLASHING

This feature allows a station connected to a C.O. line to get fresh dial tone on that line without having to hang up and reseize the line.

This feature is used by pressing the flash key on the station.

No programming is required for this feature.

CO LINE RESTRICTION

This feature can prevent any number of stations from originating and dialing outgoing calls on C.O. lines.

This feature functions automatically and is usually programmed during system set-up.

DIAL PULSE/DTMF CAPABILITY

This feature allows any line to send either dial pulse or DTMF addressing to the telephone network.

This feature functions automatically and is usually programmed during system set-up.

DIAL PULSE TO DTMF SWITCHING

If a line is programmed as a rotary line, pressing the star (*) on the keypad will cause any further digits dialed to be sent out DTMF. This feature facilitates the use of other common carriers or computer data entry in areas where only rotary C.O. lines are available.

No programming is required for this feature.

DISTINCTIVE RINGING

Distinctive Ringing provides four distinctive ring tones to alert the station user to the type of call he is receiving.

The tones are: C.O. ring tone, intercom ring tone, hold recall tone, and call waiting tone.

While no programing is required for this feature, the hold recall and call waiting tones will not be available unless these features have been enabled.

DO NOT DISTURB

This feature prevents all internal calls from ringing a station.

A station is placed in do not disturb by dialing Function and 5. This will cause the DND LED to light. Calls to that station will receive a slow busy tone and the LED on the DSS will flash at a slow rate.

No programming is required for this feature.

DOOR BOX - OPTIONAL

Up to two door boxes may be connected to the Delta Systems.

Pressing the "Call" button on a door box will ring predetermined stations. The distinctive ring tone is different for each door box. Those stations which ring may answer the request by going off-hook (Automatic Answering) and talk to the caller who can respond hands free. Other stations in the same Paging/Pickup group may answer the call through the group pick-up feature. in addition, the door boxes may be individually called over the intercom by dialing 81 or 82.

Aside from the door boxes themselves, the KSU must be equipped with a Miscellaneous board.

Through programming the stations which are to ring (up to 16) as well as the number of stations to ring simultaneously (up to 8) are entered. (The system hunts over busy stations.)

DSS/BLF CONSOLE - OPTIONAL

Up to two DSS/BLF consoles may be connected to a system.

Pressing a station button on the DSS will place any current call on hold and connect the user with the selected station. In this manner multiple calls may be easily transferred. Buttons not used for stations can be programmed for personal or system speed dial positions. Once obtaining outside dial tone, pressing a such a button will dial the respective number.

In addition to the DSSs themselves, each DSS requires one unused station position.

The position numbers of the DSSs and its associated station are entered through system programming usually during system set-up. The programming of the indevidual buttons may be done at any time from the DSS involved.

DUAL COLOR LEDs

All stations are equipped with dual color LEDs to simplify the use of the system.

The LED of the station's line key will light or flash green when the station has taken direct control of that line. Lines in use by other station will light or flash red.

This is a standard feature and requires no programming.

EXCLUSIVE HOLD

This feature prevents calls placed on hold from accidentally being picked up by another station. Only the station which placed a call on hold can access it by pressing the flashing line key. Other stations may access the call by performing a Call Pick-up.

This feature is automatic and is performed by pressing the hold button.

No programming is required for this feature.

EXTERNAL BACKGROUND MUSIC -OPTIONAL

If the system has external paging, background music may be provided to the paging zone or zones when they are not being paged.

The paging may be turned on or off selectively from station 10 by dialing Function and 91, 92 or 90 for zones 1, 2 or both.

This feature requires a music source.

Through programming, music may be made available to either or both paging zones. Such programming is usually done during system set-up.

EXTERNAL PAGING -OPTIONAL

Either of two (or both) zones or of external paging may be accessed through the system.

This feature allows access to the inputs of two amplifiers to permit voice messages to be made over a paging system. The page zones are dialed up over the intercom by pressing the Function button and then 31 (or 32 or 30 for both zones).

This feature requires a Miscellaneous board in the KSU as well as an external paging system.

Programming is required to activate this feature. This is ususally done during system set-up.

FULL DUPLEX TALK-BACK

This feature allows a station user to answer an intercom call without picking up the handset.

This feature works automatically when the station is called by responding to the voice announcement in a normal voice (unless the station is in the mute mode or is being tone signalled). Because there is no switching involved, background noise does not cause interruptions in the conversation and the is no clipping of the voice in either direction.

No programming is required for this feature.

GROUP PICK-UP

This feature allows any station to answer a ringing station which is in its Paging/Pick-up group.

To pick up a ringing call, the station user goes off-hook and presses the pound (#) key on the keypad.

While assimment of stations to a Paging/Pickup group other than group zero requires programming, no programming is required to activate this feature.

HOLD RECALL

This feature reminds a station user that a call has been on hold for a specified period of time by sending ten seconds of hold recall tone through the station's speaker. This recall tone will be repeated after each following specified period of time until the call is taken off hold.

When enabled this feature works automatically when a call is placed on hold.

The period of time may be programmed from 1 to 180 seconds or unlimited. This is usually done at the time of system set-up.

HOT LINES

This feature allows any of the unused last seven station, line keys to be programmed by the user as hot lines.

To make a Hot Line call, the user removes the handset and presses the respective line key (Hot Line). Note: The Hot Line feature is a substitute for remembering and dialing the station's intercom number. It does not function as a DSS button or Busy Lamp.

Programming is performed from the stations by dialing 01, pressing the desired unused line key and then dialing the desired extension number followed by the pounds sign (#).

INDIVIDUAL SPEED DIALING

Up to ten Numbers may be programmed into memory from each station in the system for later use by that station.

To use the feature, the LND/SPD button followed by the two digit bin number (00 to 09) is pressed in place of dialing the number.

These numbers are programmed by pressing the LND/SPD button, dialing the bin number followed by the number to be stored and then pressing the LND/SPD button again.

INTERCOM HOLD

This feature allows a station user to place an intercom call on hold.

While on an intercom call, pressing the hold button will place the call on hold on all stations in that station's Paging/Pickup group. These hold buttons will flash at the hold rate and may be pressed to retrieve that call from any such station.

While Paging/Pick-up group programming affects this feature, no programming is required to enable it.

LAST NUMBER REDIAL

This feature allows the last number dialed from a station to be redialed at a later time from that station.

To use this feature the LND/SPD button is pressed twice when outside dial tone is heard.

No programming is required to enable this feature on C.O. lines. For this feature to work on outside calls through a PABX, one single digit access may be programmed into the system. This is usually done at the time of system set-up.

LCD DISPLAY PHONE - - OPTIONAL

The LCD Display Phone provides its user with date, time, call status and absence message information.

The date and time are displayed while the station is idle. Call duration, the line or lines and station or stations connected are displayed during a call along with the call duration. Absence messages may be stored through an extension of the Do Not Disturb feature. Thesemessages are displayed when such a station is called.

The LCD Display station is a separate item. Standard stations are not upgrageable to LCDs.

The programming required for the display phone may be done at any time.

MEET ME PAGE - INTERNAL/EXTERNAL

Meet Me Page allows a user to talk to a party who has made an internal or external page without having to call a particular station number.

Upon hearing a page requesting a meet, the user may join the party who has not hung up by pressing the Function button and dialing the digit 4 from any station.

No programming is required for this feature once paging has been enabled.

MICROPHONE MUTE

This feature allows the station user to prevent the microphone from picking up any conversation which might normally be heard by the connected party. This applies to both Handsfree Answerback and speakerphone operation.

To mute the microphone, the HOLD/MUTE button is pressed while the handset is on-hook. The red LED under the button will light steadily as a reminder that this function is in use.

No programming is required to enable this feature.

MUSIC ON HOLD - - OPTIONAL

This feature provides music to outside lines when they are placed on hold.

When provided, this feature functions automatically.

Aside from a music source, no equipment is required.

No programming is required to enable this feature.

MUTED RING

This feature reduces the volume of the ring and tone signals from the station speaker when the handset is off-hook.

NIGHT SERVICE

This feature allows predetermined stations to ring when the system is in the night mode. It also activates the Automatic Call Diversion feature.

Night Service is enabled from the station in position 10 by dialing Function 6 and exited by dialing Function 7.

If there is a DSS on the system, pressing the Night button will alternatly turn the Night Service on and light the associated LED. Pressing it again will return the system to the day mode.

Up to eight stations may be programmed as night ringing stations. This is usually done at the time of initial system set-up.

ON HOOK DIALING

This feature allows a station to place an outside call without lifting the handset.

To use this feature the desired line key is pressed. Dial tone will be heard and the number may be dialed. Unless the station is equipped with a speakerphone, the handset must be lifted in order for the caller to be heard.

No programming is required for this feature.

PABX PAUSE

This feature inserts a brief pause after the first digit when the dialed number begins with the trunk access code digit.

This feature functions automatically when the trunk access code is recognized.

A single, one digit number must be entered during programming. This is usually done at the time of installation.

PHONES COMPATABLE WITH ALL SYSTEMS

All Delta Series telephones are compatable with all Delta KSUs. This allows a system users to increase the capacity of their systems through a change-out of KSUs without replacing the stations or the cabling.

PRIVACY

This feature prevents accidental or intentional eavesdropping on both intercom and outside calls by preventing a second station from entering into an existing conversation.

Privacy is automatically applied to all calls.

No programming is required for this feature.

REVERSE TRANSFER

Reverse Transfer allows a station user to retrieve a call placed on Exclusive Hold from another station.

To retrieve such a call the station user presses the Function button and then the desired Line Key.

No programming is required for this feature.

RINGER VOLUME CONTROL

The Ringer Volume Control allows for the adjustment of the ring tones independent from the other audio tones coming from the speaker.

The level is adjusted by moving a three position slide switch marked with a bell symbol on the front of the station.

No programming is required for this feature.

SPEAKER VOLUME CONTROL

The Speaker volume control allows for the adjustment of the voice and audio coming from the speaker.

The volume is adjusted by moving a slide potentiometer marker with a speaker symbol on the front of the station.

No programming is required for this feature.

SPEAKERPHONE

Any Delta series station may be equipped as a speakerphone to allow hands-free conversations on outside lines.

To use a station equipped with this feature the button with the symbol of a speaker is pressed and the call is made or received in the same manner as if the handset had been lifted. In this mode of operation, the Hold/Mute button may be pressed to disable the station's microphone. When this is done the red LED under the hold button will light to remind the user that his microphone is inactive.

This feature requires a printed circuit board to be added to the station. This may be done in the field.

No programming is required for this feature.

SPLIT RINGING

Any or all stations may be programmed to ring for incoming calls on any or all lines.

Once programmed this feature functions automatically.

The programming for this feature is done from the respective stations involved. While this is normally done during system set-up, it may be easily changed at any time.

SYSTEM SPEED DIALING

This feature allows any non access restricted station to speed dial any of the 90 system speed dial numbers. Use of this feature overrides any toll restriction applied to the stations.

To use this feature, the LND/SPD button is pressed followed by the two digit bin number in place of dialing the number.

These numbers are programmed from the station in Position 10 by getting intercom dial tone, pressing the LND/SPD button, dialing the bin number followed by the number to be stored and then pressing the LND/SPD button again.

TENANT SERVICE

This feature allows the system to support up to four tenant groups. Stations may be in any one of the four tenant groups and lines may be assigned to one or more tenant groups. Lines which belong to a tenant do not light on other tenant's stations but may be answered when the system is set for night service. Optionally, all phones may be allowed to answer incoming ringing calls, regardless of tenant assignment (Universal Answering).

This feature functions automatically.

The station and line tenant group assignments as well as Universal Answering are programmed at the time of system set-up.

APPENDIX A

OFF-LINE PROGRAMMING FORMS

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LINE KEY ASSIGNMENT

FORMAT: * 24 Data #

	DATA				DEFAULT
	Lk	D1	D2	NEW	Lk D1 D2
* 24	1	1	0	#10	1-5 1 1
* 24	2		ζ.,	# 1.0	6-12 0 0
* 24	_3		-	#10	
* 24	4	Û	()	#10	Lk= Line Key
* 24	5	0.	0	#/0	D1
* 24	6	H	L	#10	0= Not Used 1= CO Line
* 24	7	1	1	#/0	2= Centrex or PABX Line
* 24	8		1	#/0	D2 0= Tone Dialing
* 24	9	V	V	#	1= Rotary Dialing
* 24	10			#	
* 24	11			#	
* 24	12			#	

NOTE: If Lines 6 through 12 are assigned Tenant Line Assignment MUST BE PERFORMED.

HOLD RECALL TIME

FORMAT: * 14 DATA #

DATA

D1 D2 D3

* 14 0 9 0 #

NEW 0 9 0 (NEW)

DEFAULT

D1	D2	D3
0	0	0

D1,D2,D2= Number of seconds-(001 to 180) Entry of 000 disables feature.

FIXED OR FLEXIBLE RINGING

FORMAT: * 29 Data #

DATA
D1
1

DEFAULT



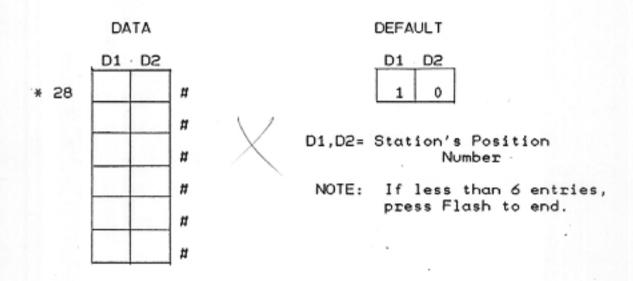
Di 0= Fixed 1= Flexible

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6K

FIXED DAY RINGING

FORMAT: * 28 DATA #, DATA #, Etc.



NIGHT RINGING

FORMAT: * 16 DATA #, DATA #, Etc.

	DA	TΑ				DEFAULT
	D1	D2	1		1	NOT ASSIGNED.
*16	<i>Z</i>	0	#		D1,D2=	Station's Position Number
	2	4	#		NOTE:	If less than 8 entries, press flash to end.
	/	4	#	Check		
			#	Olisek		
			#			

DSS CONSOLES and STATIONS

FORMAT: * 40 DATA #, DATA #

		DATA					
		D1	D2	D3	D4		
NEW *	40	3	0	1	0	Ħ	
ENTRIES		2	7	2	4	#	
		No.					

V-6 PR #1

DEFAULT

NONE ASSIGNED

D1,D2= DSS CONSOLE Position Number.

D3,D4= DSS STATION Position Number.

NOTE: If less than 2 entries, press flash to end.

PABX TRUNK ACCESS CODE

FORMAT: * 30 DATA #

DATA DEFAULT

D1

#30 # 0

D1= Access code for outgoing trunk behind a PABX or Centrex.

TENANT STATION ASSIGNMENT

FORMAT: * 22 DATA #

		D1	D2	D3	D4	D5	
¥	22	0		100			
*	22	1					
¥	22	2					
×	22	3					

DEFAULT

All stations are assigned as tenant 0.

D1= Tenant number

D2,D3= (FROM) Position Number.

D4,D5= (TO) Position

TENANT LINE ASSIGNMENT

FORMAT: * 23 DATA #

DATA

	Lk	D1		New
* 23	1	Ũ	#	Dem
* 23	2	۵	#	
* 23	3	0	#	
* 23	4	0	#	
* 23	5	0	#	
* 23	6	0	#	
* 23	7	0	#	
* 23	8	0	#	
* 23	9		#	
* 23	10		#	
* 23	11		п	
* 23	12		#	

DEFAULT

Lk	D1
1-5	0
6-12	*

Lk= Line Key

D1= Tenant Number (0-3)

* = Not Assigned

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OK

UNIVERSAL ANSWERING

FORMAT; * 42 DATA #

DATA

* 42 D1

DEFAULT

D1 0

D1

0= Tenants 1-3 can only answer calls on their own lines. 1= Universal Answering

HOT LINES

FORMAT: * 17 DATA #

DATA

DEFAULT

Lk's 6-12 set as Hot Lines.

Lk= Line Key

NOTE: Entering a 0 in place of a Line Key will clear ALL Hot Lines.

INTERCOM SPEECH PATHS

FORMAT: * 31 DATA #

	DATA										
		D1	D2								
*	31	0		#							
*	31	1		#							
*	31	2		#							
*	31	3		#							
*	31	4		#							
*	31	5		Ħ							

D1	DS
0	1
1	1
2	0
3	0
4	0
5	0

DEFAULT

D1= Path Number (0-5)

D2

0= Blocked 1= Available

STATION NUMBER and CLASS of SERVICE

FORMAT: * 20 DATA #

		DATA								EFAL	LT				
		D1	DS	D3	D4	D5		Posi							
* 2	0	1	0				#	assi: Numb				Inte	rcom	'	
* 2	0	1	1	1	١	3	C _H	A11		ons	are	assi	gned	to	
* 2	0	1	S	1	2	3	9	cos	0.			,			
* 2	0	1	3	2	0	0	#	D1,D	2= Pc	siti	on N	lumbe	r		
* 2	0	1	4	1	L/	3	9	D3,D	4= Ir	tero	om N	lumbe	r		
* 2	0	1	5	4	每	色	# 1	D5= (Class	of	Serv	ice	Numb	er	
* 2	0	1	6				#					DATA			
* 2		1	7	(7	3	P			D1	D2	DЗ	D4	D5	
* 2		1	8	ì	8	4	#	*	20	3	0	-	-		#
* 2		1	9			-/-	" "								
				1	3	-			20	3	1				Ħ
* 2		2	0		1	0	#	*	20	3	2				Ħ
* 2	0	2	1		-	_	#	*	20	3	3				#
* 5	0	2	5				#	*	20	3	4				#
* 2	0	2	3				#	*	20	3	5				Ħ
* 2	0	2	4				#	*	20	3	6				#
* 2	0	2	5				#	*	20	3	7				#
* 2	0	2	6	2	6	4	#	*	20	3	8				Ħ
* 2	0	2	7				#	*	20	3	9				Ħ
* 2	0	2	8				#	*	20	4	0				#
* 2	0	2	9				н	*	20	4	1				#

RESTRICTION TABLE USAGE

FORMAT: * 43 DATA #

DATA	DEFAULT		
D1 D2	D1 D2		
*43 / #	0 0		

D1
0= Toll Calls DO NOT require
a 1 before the Area Code.
1= Toll Calls DO require a 1
before the area code.

D2 0= ALLOW area codes entered in COS-2 table 1= DENY area codes entered in COS-2 table

CLASS OF SERVICE DEFINITIONS

COS	DEFINITION
0	Allowed all types of calls- not restricted.
1	Not allowed calls beginning with 0 (overseas and operator assisted).
2	Not allowed toll calls based upon entries in
3	the associated toll table. Not allowed toll calls except for those area
4	codes in the associated list. Not allowed to originate or dial calls on
	CO Lines.

TOLL TABLE- COS 2

FORMAT: * 15 DATA #, DATA #, etc. (30 Maximum)

		DATA			-	DATA			DEFAULT
	D1	D2	DЗ	,	D1	D2	DЗ	,	Table is blank.
* 15		02	03	# # #		02	03	# # #	D1,D2,D3= Three digit Area Code. NOTE: If less than 30 entries press Flash to end. An entry of 000 will clear the table.
				# # # #				# # # #	If an error is made, the entire list must be reentered.
				#				Ħ	

ALLOWED AREA CODE TABLE- COS 3

FORMAT: * 41 DATA #, DATA #, etc. (5 Maximum)

DATA

* 41 7 1 4 # 2 \ 3 # 6 \ 9 # DEFAULT

Table is blank.

D1,D2,D3= Three digit number.

NOTE: If less than 5 entries press Flash to end.

If an error is made, the entire list must be reentered.

.UNATTENDED CO to CO CONFERENCING

FORMAT: * 38 DATA # DATA #

DATA

* 38 U O #

DEFAULT

Not assigned.

D1,D2= UNUSED Position Number

NOTE: If less than 2 entries press Flash to end.

AUTOMATIC CALL DIVERSION

FORMAT:. * 37 DATA #

* 37 LKa LKb D1 D2 D3 D4 # 37

DEFAULT

Not Assigned.

LKa= Incoming Line Key

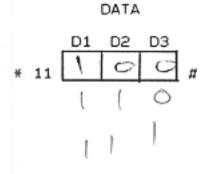
LKb= Outgoing Line Key

D1,D2= Personal speed dial location

D3,D4= Associated Position Number

PAGING

FORMAT: * 11 DATA #



DEFAULT

D1	D2	DЗ
0	0	0

D1= Internal Paging D2= External Zone 1 D3= External Zone 2

> 0= Disable 1= Enable

BACKGROUND MUSIC

FORMAT: * 12 DATA #

DATA

D1 D2 D3

DEFAULT

D1	D2	D3
0	0	0

D1= Through Station Speakers D2= On External Zone 1 D3= On External Zone 2

0= Disable 1= Enable