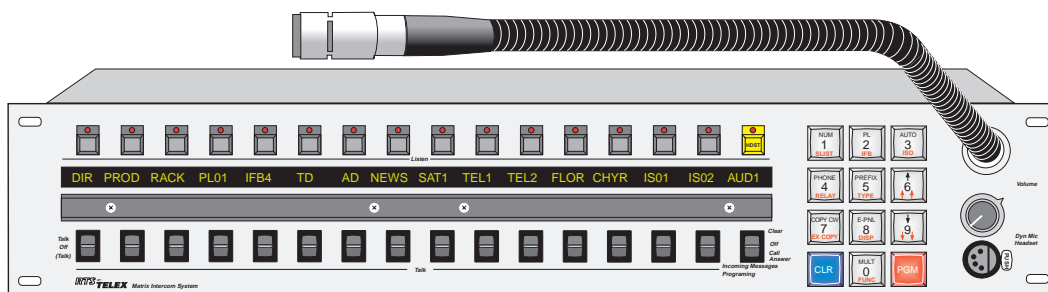


# OPERATING INSTRUCTIONS

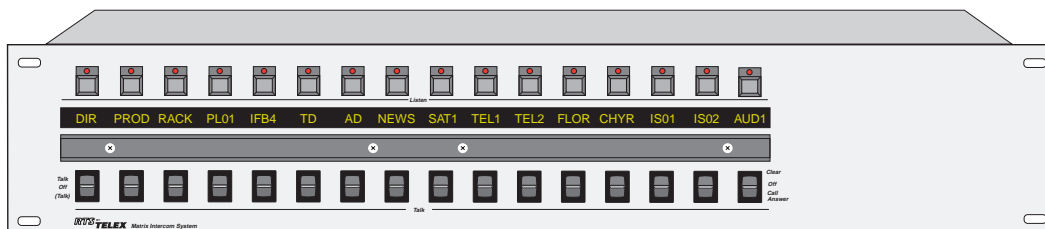
## KP96 / KP97 SERIES KEYPANELS VERSION 8.3G

WITH EKP96 / EKP97 EXPANSION PANELS  
AND LCP-100A LEVEL CONTROL PANEL

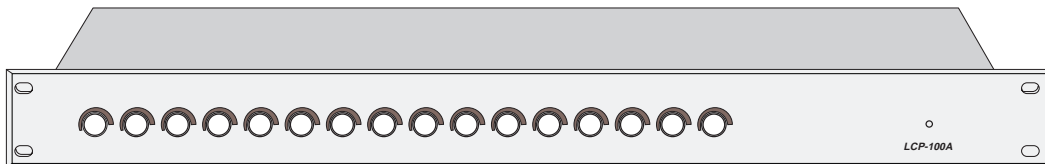
ADAM™, ADAM™ CS, AND ZEUS™ INTERCOM SYSTEMS



*KP96 / KP97 Keypanels*



*EKP96 / EKP97 Expansion Panels*



*LCP-100A Level Control Panel*

# RTS™

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Burnsville, MN 55337 U.S.A.  
Telephone: (952) 884-4051  
Fax: (800) 323-0498

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If repair through the dealer is not possible, obtain a RETURN AUTHORIZATION from:

Customer Service Department  
Telex Communications, Inc.  
Telephone: (877) 863-4169  
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Factory Service Department  
Telex Communications, Incorporated  
8601 E. Cornhusker Hwy  
Lincoln, NE 68505 U.S.A.

Upon completion of any repair the equipment will be returned via United Parcel Service or specified shipper collect.

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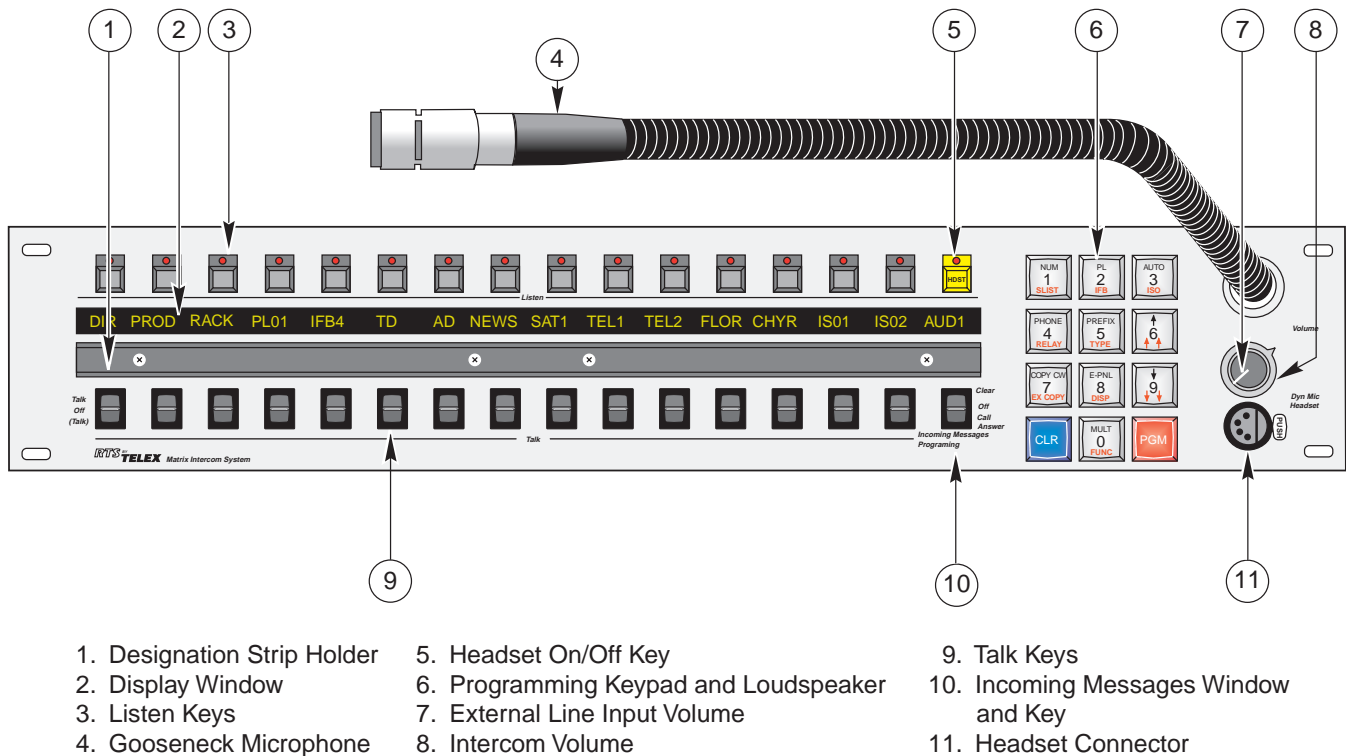
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# 1 INTRODUCTION

This manual describes the operating procedures for the KP96/KP97 keypanels when used in an ADAM, ADAM CS, or Zeus Intercom System. The operating procedures are divided into two parts: “Basic Keypanel Operation” (page 7) which describes how to talk and listen over the intercom system, and “Advanced Operations” (page 9) which describes how to program key assignments, change setup pages, and display information about the keypanel setup. If you are using a keypanel that has already been setup by a system administrator, you may only need to refer to the basic operating information. If you need to change the keypanel setup or access other information about the keypanel setup, you will need to refer to the advanced operation information.

This manual was revised to describe the operation of keypanel firmware version 8.3G. (To find out what version of firmware is currently installed in your KP96 or KP97 keypanel, see “Display Requests using Scrolling”, page 11). Version 8.3G adds support for the LCP-100A Level Control Panel, and removes the MVOL (master volume) adjustment. (MVOL let the user adjust the overall gain for an intercom port. It was intended as an adjustment when a port was being overloaded by too many inputs, but practical experience has revealed that this adjustment is virtually never required, and that misuse of the adjustment leads to other level and noise problems.) If you need to make volume adjustments to the listens for individual intercom port or party line assignments, either use the gain adjust feature (page 12) or consider using LCP-100A Level Control Panels. In some cases, unacceptably high or low volume levels for particular intercom port assignments may be due to an audio source connected to that port which is operating at a non-standard level for the intercom system. In such cases, all users at all ports will hear the audio source at the wrong level. To correct this, it is better to use the Analog Input/Output Gain feature, which is available in the intercom system configuration software.



**Figure 1: Keypanel Reference View. (Features may vary, depending on model.)**

(See Figure 1 for numbered callouts)

1. Designation Strip Holder: A strip can be inserted here to identify the talk key assignments if required.
2. Display Window: The display window contains a separate indicator for each talk key. The indicators can be either 4-character, alpha-numeric displays or LED's, depending on the keypanel model. The alpha-numeric displays show the names for the destinations (intercom ports, party lines etc.) that have been assigned to the talk keys (9). These names are defined using the intercom configuration software at a configuration computer.
3. Listen Keys: Listen keys are normally programmed to activate the listen path to the person, party line etc. that is assigned to the talk key immediately under the listen key. Listen key activation is normally required only when conversing with certain non-keypanel devices, such as some belt packs or telephone circuits that do not have data connections to the intercom system. Listen key activation is normally not required when conversing with another keypanel.
4. Gooseneck Microphone: Pressing any talk key activates the gooseneck microphone. The headset on/off key (5) must be in the off position to use the gooseneck microphone.
5. Headset On/Off Key: This key is equipped with an LED to indicate the "on" position. When the key is on, the headset connector (11) is activated, and the gooseneck microphone (4) and loudspeaker (6) are turned off.
6. Programming Keypad and/or Loudspeaker: You use the optional programming keypad to assign destinations (ports, party lines etc.) to keys and to display information about the keypanel setup. You can also use it to display a destination's name in the call waiting window and then place a call to that destination using the call waiting key. This is useful when a destination is not currently assigned to a key, and there are no keys available to make the assignment. When a keypanel is equipped with a programming keypad, the loudspeaker is located behind the keypad.
7. External Line Input Volume Control: The inner volume control knob adjusts the headphone or loudspeaker volume of any input connected to the EXT LINE IN connector on the back of the keypanel (only for keypanels with the optional KP-96-RC Rear Panel Connector Plate).
8. Intercom Volume: The outer volume control knob adjusts headphone and speaker volume for intercom communications.
9. Talk Keys: These are used to talk to the keypanels, party lines etc. that are indicated on the designation strip or alpha-numeric display.
10. Incoming Messages Window and Key: The incoming messages window displays the name of a caller when there is no talk key assigned to the caller. (This is the default operation. The intercom system can also be configured so that the names of all callers display in the incoming messages window. This is accomplished by changing the position of master controller DIP switch 2. Refer to the intercom system installation guide for further information.) The incoming messages key may be pressed to respond to the caller. The incoming messages key may also be used, along with the programming keypad, to call a keypanel that does not have a talk key assigned on your keypanel.
11. Dynamic Microphone Headset Connector: A headset with a dynamic microphone may be optionally connected and used in place of the gooseneck microphone and internal speaker.

## 2.1 BASIC KEYPANAL OPERATION

### 2.1.1 POWER SWITCH

A power switch is located on the back of each keypanel, expansion panel, and level control panel next to the power cord.

### 2.1.2 POWER-UP INDICATIONS

**Keypanels with Alpha-Numeric Displays:** When power is turned on, the talk key displays will first display asterisks (\*\*\*\*) then dashes (----). After a few moments, the talk key assignments will display. If no talk key assignments have been programmed, the displays will continue to show dashes. If a keypanel cannot establish communications with the intercom system, all alpha-numeric displays will continue to show asterisks.

**Keypanels with LED Displays:** The incoming messages display will first display asterisks (\*\*\*\*) then dashes (----). If a keypanel cannot establish communications with the intercom system, the incoming messages display will continue to show asterisks (\*\*\*\*).

### 2.1.3 USING A HEADSET WITH THE KEYPANAL

Plug in the headset, then tap the yellow HDST button to turn it on. This will also turn off the keypanel speaker and gooseneck microphone.

### 2.1.4 VOLUME ADJUSTMENT

**Intercom Volume:** Adjust intercom volume using the outer volume control knob on the keypanel.

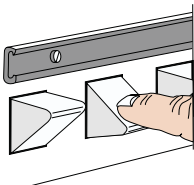
**External Line Input Volume:** If an optional external line input is connected, adjust its volume using the inner volume control knob on the keypanel.

**LCP-100A Level Control Panel:** If your keypanels and expansion panels are connected to LCP-100A Level Control Panels, you can adjust the listen level for any key assigned to an intercom port or party line by rotating the LCP-100A control knob associated with that key.

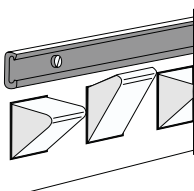
**Gain Adjustment:** If your keypanels and expansion panels are not equipped with LCP-100A Level Control Panels, you can still adjust the level for individual intercom ports and party lines using the Gain feature. See page [12](#).

### 2.1.5 PLACING A CALL

1. Activate the talk key for the person, party line etc. that you want to talk to:



For momentary talk, hold down the talk key and talk into the microphone. When you release the key, it will return to the center (off) position.



For hands-free talk, place the talk key in the “up” position and talk into the microphone. Return the talk key to the center (off) position when finished with your conversation.

2. In some cases you may not be able to hear the person, party line etc. to whom you are talking. In such cases, tap the listen key above the talk key. The listen key LED illuminates when the key is on. (See notes, below.)
3. When you are finished with your conversation, turn off the talk (and listen) keys.

#### Notes:

- When talking to another keypanel, you normally do not have to activate a listen key because the other keypanel activates the listen path when it talks back. Usually, however, listen key activation is required when talking to devices such as some belt packs or telephone interfaces. If desired, selected listen keys may be programmed to automatically turn on whenever the corresponding talk key is pressed (auto-listen). For further information, see [Assigning a Special Function to a Key](#), page [17](#).
- On some occasions, when a particular talk key is pressed, the corresponding alpha-numeric display will alternate between the normal display and a double asterisk (\*\*). This indicates that the call cannot currently be placed. There are two occasions when this happens. The first is when the key is assigned to an IFB and another keypanel with a higher IFB priority is currently using the IFB. The second is when the talk key is assigned to a person, party line, etc. of a remote intercom system, and there are currently no trunk lines available to route the call.
- If desired, your keypanel may be programmed so that when any talk key is left in the on position, the LED in the listen key directly above it will “wink” to remind you that there is an active talk key. Listen key wink is set up at the time of installation. See “Listen Key Winking” in the Keypanel Installation Manual for further information.

#### **2.1.6 RECEIVING CALLS FROM OTHER KEYPANELS**

1. When your keypanel or any of its expansion panels has a talk key assigned to the caller(s):

The talk key display for each caller will flash for about 15 seconds and each caller will be heard over your loudspeaker or headset<sup>1</sup>. To talk to a caller, press the talk key for that caller.

2. When no keys are assigned to the caller(s):
  - a. If there is one caller, the caller’s name will appear in the incoming messages window and the caller will be heard over your loudspeaker or headset. To talk to the caller, hold down the incoming messages key. When you are finished with your conversation, you can clear the caller’s name from the incoming messages window by momentarily placing the incoming messages key in the Clear (up) position. If you do not clear the caller’s name within about 90 seconds it will clear automatically.
  - b. If one or more additional stations call while the first caller’s name is displayed in the incoming messages window, the incoming messages window will start to flash. To talk to the next caller, you must first clear the previous caller from the incoming messages window by momentarily placing the incoming messages key in the Clear position. Then press down on the incoming messages key to talk to the next caller.

The names of up to four callers will be stored for display in the incoming messages window. If you do not clear the current caller’s name within about 90 seconds, the name will automatically clear and the next caller’s name will be displayed. The incoming messages window will continue to blink until the last caller’s name is displayed.

---

<sup>1</sup> The caller’s name may also appear in the incoming messages window if Master Controller DIP switch 2 has been set to the “On” position in the intercom matrix frame. In this case, steps 2a and 2b also apply.



## 3 ADVANCED OPERATIONS

### 3.1 GENERAL

The intercom system's configuration computer and software are the primary tools for creating and saving intercom system configurations. If your keypanel is equipped with a programming keypad, you can also change settings for your keypanel from the keypad, provided restrictions have not been imposed using the intercom system configuration software. If you try to program a restricted key or function, the programming will be ignored.

Setup changes made at the keypanel are immediately uploaded to the intercom system and become part of the intercom system configuration. These changes will be retained during loss of power, but if an additional backup record is desired, the changes should be saved to disk using the intercom system configuration software.

### 3.2 KEYPAD KEY LABELING

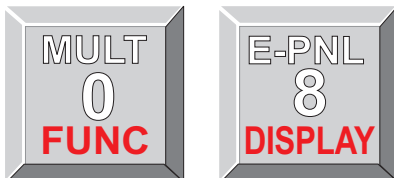
#### Notes:

- The CLR key is used to cancel a program sequence. It is a good idea to start any program sequence by first tapping this key to clear any uncompleted programming sequence.
- The white labels on some keys indicate programming sequences that start by simply tapping that key. For example, to program a party line, you always start by tapping the white "PL" key.
- The red labels on some keys indicate programming sequences that start by tapping the FUNC key followed by a red-labeled key. For example, to program a special list, you always start by tapping FUNC\_\_ SLIST (tap the FUNC key, then tap the red SLIST key).
- Keys with numbers 0-9 are used to enter panel numbers, party line numbers etc.
- The PGM key is generally pressed immediately after a programming sequence and immediately before pressing a talk or listen key when making key assignments. This key is used to tell the keypanel that you have completed a key sequence and now wish to assign a key.

### 3.3 DISPLAY REQUESTS

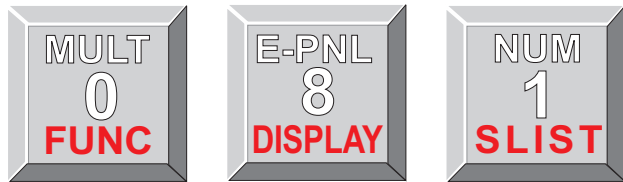
Display requests let you view information about the keypanel's current configuration. You can display information by two methods: either by entering sequences on the programming keypad, or by scrolling the names of display requests in the incoming messages window and then selecting the desired display request. The scrolling method also gives you access to additional features that are not available with the keypad sequences. The following paragraphs discuss these two methods.

#### 3.3.1 DISPLAY REQUESTS USING KEYPAD SEQUENCES



All display request sequences start with FUNC\_\_DISPLAY

### 3.3.1.1 Keypanel Identification



#### FUNC\_\_DISPLAY\_\_1

This sequence displays the panel number of the keypanel in the incoming messages window for about 2 seconds.

☞ A false reading can be given if the keypanel's dip switches are incorrectly set.

### 3.3.1.2 Level 2 Talk Key Assignments For Stacked Talk Keys

A stacked talk key activates two types of communication at once. For example, a stacked talk key could simultaneously activate audio output to a transmitter and key the transmitter using a relay. The audio output is called the level 1 assignment and the relay is called the level 2 assignment. Normally, the level 1 talk key assignment is displayed on the keypanel. To briefly display the level 2 assignments enter:



#### FUNC\_\_DISPLAY\_\_2

This sequence displays all level 2 talk key assignments for about 10 seconds (keypanels with alpha-numeric talk key displays only). "LEV2" displays in the incoming messages window.

### 3.3.1.3 Listen Key Assignments



#### FUNC\_\_DISPLAY\_\_3

This sequence displays all listen key assignments for about 10 seconds (keypanels with alpha-numeric talk key displays only). "LSTN" displays in the incoming messages window.

### 3.3.1.4 Keypanel And Expansion Panel Setup Page Numbers

Each keypanel has four setup pages. Each setup page defines a complete set of talk and listen key assignments for one panel. One setup page is required for the main keypanel, and one is required for each expansion panel connected to the main keypanel.

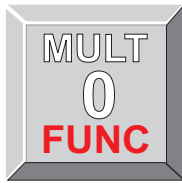
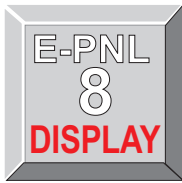


#### FUNC\_\_DISPLAY\_\_E-PNL

When you enter this sequence, the incoming messages window displays "M\_n", where M indicates the main keypanel and n indicates the setup page number. Next, if there is an expansion panel connected, "E1-n" is displayed, where E1 indicates expansion panel 1 and n indicates the setup page number. If

additional expansion panels are connected, the setup pages for these will also be displayed using the same format.

**3.3.1.5 Test Mode**



**FUNC\_DISPLAY\_0**

When you enter this sequence, all alpha-numeric displays show a % symbol. When a talk key is pressed up or down, the display changes to “OK” verifying proper key operation.

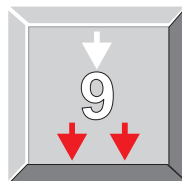
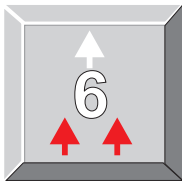
If the keypanel uses LEDs for the talk key displays, the LEDs will all turn on. When a talk key is pressed up or down, the LED for that key will turn off to verify proper operation.



Tap the CLR key to exit test mode.

**3.3.2 DISPLAY REQUESTS USING SCROLLING**

The display requests described previously can also be accessed using scrolling. Scrolling also offers several additional features. To use scrolling, enter:



Enter FUNC\_DISPLAY\_ ↑ ↓ to scroll up or down in the list of display requests. The display request names will appear in the incoming messages window. See Table 1 for details.



When the desired display request name is selected, tap the PGM key to view the requested information.



Tap the CLR key at any time to exit.

**Table 1: Display Requests Using Scrolling**

NAME	DESCRIPTION
ID	Briefly displays the panel number of the keypanel (same as FUNC_DISPLAY_1).
LEV2	Briefly displays the level 2 talk key assignments (same as FUNC_DISPLAY_2).
LSTN	Briefly displays listen key assignments (same as FUNC_DISPLAY_3).
NAME	Gets a list of all crosspoints to this keypanel which are closed and displays the list in the incoming messages window. (If there are no crosspoints closed "N/A" will briefly display.) Use the ↑ ↓ keys to scroll up or down the list. You may press the incoming messages key to talk back to the selected crosspoint.
TYPE	Briefly displays the type of communication (point-to-point, party line etc.) for all level 1 talk key assignments.
MTX	Briefly displays the intercom system (matrix) names for all level 1 talk key assignments. If there is only one intercom system, the word "LOCL" displays to indicate "local matrix".
TONE	Turns on the keypanel's tone generator (same as FUNC_DISPLAY_7). Tap CLR to turn the tone generator off. (See Activating the Tone Generator, page 31.)
EPNL	Briefly displays the setup page numbers of the main keypanel and any connected expansion panels (same as FUNC_DISPLAY_8).
V8.3G	Displays current software version. (The PGM key causes no further action.)
GAIN	Used to adjust listen gain for a point-to-point or party line listen key. After selecting GAIN, tap a listen key. After a few seconds, the gain level for that key will display. Use the ↑ ↓ keys to change the gain level.
TEST	Enters test mode (same as FUNC_DISPLAY_0).

☞ Tap CLR at any time to return to the normal incoming messages window display.

### 3.4 ASSIGNING SETUP PAGES

Each keypanel has 4 setup pages, and each setup page contains 16 key assignments. One setup page is assigned to the main keypanel, and one is assigned to each expansion panel. Up to 3 expansion panels can therefore be connected. Or, if less than 3 expansion panels are connected, the extra setup pages can be used as alternate configurations for the main keypanel. This means that you can completely change the keypanel's key assignments by changing the setup page that is assigned. Assign setup pages as follows:

1. On the main keypanel, tap the E-PNL key.



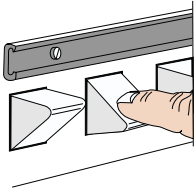
2. Select setup page 1-4 (4 in this example).



3. Tap the PGM key.

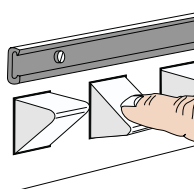


4. On the desired keypanel or expansion panel, press any talk or listen key. If the panel has alpha-numeric displays, the new key assignments should appear in a few moments.



#### Notes

- The same setup page cannot be assigned to more than one panel. If a setup page is already assigned to a panel, you must change that panel's assignment before you can use the same setup page for another panel.
- If a panel will not accept a setup page assignment, this feature may have been restricted by the intercom system configuration software.
- On expansion panels only, you can clear the page assignment by entering E-PNL\_\_0\_\_PGM, then pressing any key on the expansion panel.



## 3.5 PROGRAMMING TALK AND LISTEN KEYS

### 3.5.1 GENERAL

There are three methods to program talk and listen keys. These methods are summarized below and explained on the following pages.

**Key Assignment using Keypad Numeric Entry:** Using this method, you enter the panel number, party line number etc. that you wish to assign to a key. This method requires that you know the number (not the name) of the port, party line etc. that you wish to assign. Since most users do not have access to this information, this method of key assignment is not recommended.

**Key Assignment by Copying an Assignment:** Using this method, you can copy an assignment from one key to another. You can also use this method to transfer an incoming call to a talk key and/or listen key.

**Key Assignment using Alpha Scrolling:** Using this method, you scroll through a list in the incoming messages window and pick the alpha-numeric name of the panel, party line etc. that you wish to assign to a key. Then you copy that name to a key. If descriptive names have been assigned (using the intercom system configuration software) alpha scrolling is easiest to use.

#### Notes

- You can individually program each talk and listen if desired. However, in most cases, we recommend that you use one of the special function assignments for the listen keys (see “Assigning a Special Function to a Key”, page 17). When you set a listen key for one of the special function assignments, you can change the corresponding talk key assignment to anything you want, and the listen key will take on the same assignment automatically.
- When you program a talk key, the name of the port, party line etc. that you have programmed will appear in the alpha-numeric display above that key. If a listen key is programmed, the alpha-numeric display below that key will briefly display the assignment, and after a few seconds the talk key assignment for that key will reappear. To check listen key assignments at any time, enter FUNC\_\_DISPLAY\_\_3 on the keypad.

### 3.5.2 PROGRAMMING KEY ASSIGNMENTS USING KEYPAD NUMERIC ENTRY

☞ When using numeric entry, each programming step must be completed within 4-5 seconds. Otherwise, the sequence will automatically be cleared.

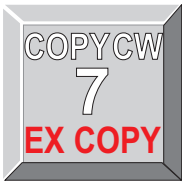
#### 3.5.2.1 Point-to-Point Key Assignments

You use point-to-point key assignment when you want to program a key to talk/listen to a specific keypanel, belt pack etc. To program a point-to-point key assignment:

1. Tap the NUM key.

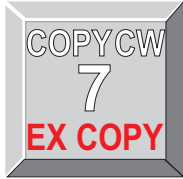
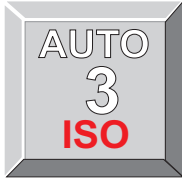


2. If the keypanel, belt pack etc. that you want to assign to a key is located in a remote intercom system, enter the intercom system number (7 for example). Otherwise, skip to step 3.



☞ Intercom system numbers are the numbers that appear in the “Icm” column in CStrunk when you select “Names” or “Setup” from the Intercoms menu.

3. Enter the panel number of the keypanel, belt pack etc. that you want to assign to a key (37 for example:)

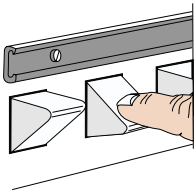


☞ If the panel number is for a remote intercom system, you must always enter 3 digits by adding leading zeros as shown. If the panel number is for the local intercom system, you do not have to enter any leading zeros.

4. Tap the PGM key.



5. Press a talk (or listen) key.



If a talk key is pressed, the panel’s name will appear in the alpha-numeric display above that key (on keypanels so equipped).

If a listen key is pressed, the panel’s name will appear briefly in the alpha-numeric display below that key, and after a few seconds, the talk key assignment for that key will reappear. (To check listen key assignments at any time, use the listen key display request sequence: FUNC\_\_DISPLAY\_\_3.)

- ☞ If a key will not accept an assignment, the port that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.

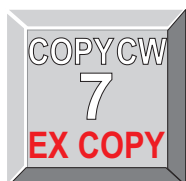
### 3.5.2.2 Assigning a Party Line to a Key

A party line is a group of intercom stations that can always talk and/or listen to each other. Party lines are set up using the intercom system configuration software. Once a party line has been set up, it can be assigned to a key as follows:

1. Tap the PL key.



2. If the party line is located in a remote intercom system, enter the intercom system number (7 in the example). Otherwise, skip to step 3.



☞ Intercom system numbers are the numbers that appear in the “Icm” column in CStrunk when you select “Names” or “Setup” from the Intercoms menu.)

3. Enter the party line number (4 in this example).

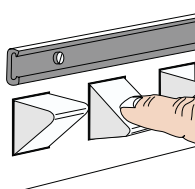


☞ If the party line is in a remote intercom system, you must always enter 2 digits by adding a leading zero if required. If the party line number is for the local intercom system, you do not have to enter a leading zero.

4. Tap the PGM key.



5. Press a talk or listen key.



If a talk key is pressed, the name of the party line will appear in the alpha-numeric display above that talk key (on keypanels so equipped).

If a listen key is pressed, the party line name will appear briefly in the alpha-numeric display below that key, and after a few seconds, the talk key assignment for that key will reappear. (To check listen key assignments at any time, use the listen key display request sequence: FUNC\_DISPLAY\_3.)



## Notes

- If a key will not accept an assignment, the party line that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignments.
- If desired, you can program the listen key with the auto-listen special function so that it is automatically activated when the talk key is pressed. See “Assigning a Special Function to a Key,” below, for further information.

### **3.5.2.3 Assigning a Special Function to a Key**

Special Functions are additional key assignments that can simplify communications. There are five special functions available. Each special function has a default two-character name for display purposes:

<b>Name</b>	<b>Description</b>
AF	Auto Follow (for listen keys only): Auto follow causes a listen key’s assignment to always be the same as the talk key directly below it. Thus, if you reassign the talk key, you do not also have to reassign the listen key. You can manually activate an auto-follow listen key independently of the talk key. If you want auto-activation (or deactivation) use one of the other key assignments, below.
AL	Auto Listen (for listen keys only): This assignment works like auto follow, except that listen is automatically activated when the talk key is pressed. It is sometimes a good assignment for use with party lines or other non-keypanel devices that do not have talk-back control of matrix crosspoints.
AM	Auto Mute (for listen keys only): This assignment works like auto follow, except that listen is automatically muted when the talk key is pressed. Auto mute is useful for talking to devices which echo your voice back to you, as it prevents feedback.
AR	Auto Reciprocal (for listen keys only): This assignment forces you to continuously listen to whatever is assigned to the talk key. It is used commonly on keypanels which are not equipped with listen keys to allow listening to party lines. It is also useful to force listening when it is desirable to have an operator continuously hear a party line or other source.
AC	All Call (for talk keys only): When a talk key is programmed for All Call, pressing the key will also activate all talk keys to the left of the All Call key (up to, but not including another All Call key).

To assign a special function to a key:

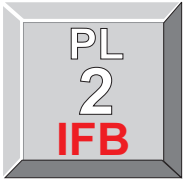
1. Tap the AUTO key.



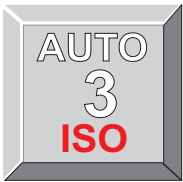
2. Select a special function:



tap 1 for Auto Listen, or...



tap 2 for Auto Follow, or...



tap 3 for Auto Mute, or...



tap 4 for Auto Reciprocal, or...

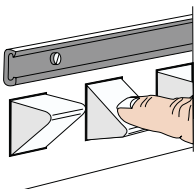


tap 5 for All Call.

3. After selecting a special function, tap the PGM key.



4. Press a listen key (for all features except All Call) or a talk key (All Call only).



If a talk key is pressed for All Call, "AC" will appear in the alpha-numeric display above the key (on keypanels so equipped). If a listen key is pressed, the name of the selected auto function will briefly appear in the display below the key.

- ☞ If a key will not accept an assignment, the special function that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.
- ☞ Special functions are always assigned in the local intercom system only. However, this does not mean that they cannot be used with remote key assignments. For example, you can program a talk key to talk to a remote party line and then program the listen key using auto-listen on the local intercom. Pressing the talk key will automatically activate listening for the remote party line.

#### 3.5.2.4 Assigning a Special List to a Key

Intercom stations, party lines etc. are always assigned to a special list using the intercom system configuration software. Once a special list has been set up, you may access all personnel on the list using a talk and/or listen key on your keypanel. Special lists are typically used for paging or monitoring selected groups of people. To assign a special list to a key:

1. Tap the FUNC key.



2. Tap the SLIST key.

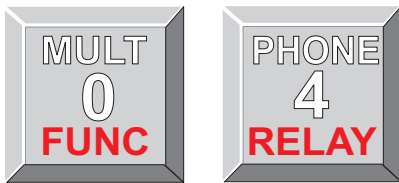


3. If the special list is located in a remote intercom system, enter the intercom system number (5 in the example). Otherwise, skip to step 4.



- ☞ Intercom system numbers are the numbers that appear in the “Icm” column in CStrunk when you select “Names” or “Setup” from the Intercoms menu.

4. Enter the special list number (4 in this example).

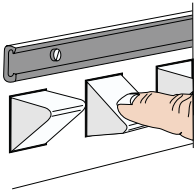


☞ If the special list is in a remote intercom system, you must always enter 2 digits by adding a leading zero if required. If the special list is in the local intercom system, you do not have to enter a leading zero.

5. Tap the PGM key.



6. Press a talk (or listen) key.



If a talk key is pressed, the name of the special list will appear in the alpha-numeric display above that talk key (on keypanels so equipped).

If a listen key is pressed, the special list name will appear briefly in the alpha-numeric display below that key, and after a few seconds, the talk key assignment for that key will reappear. (To check listen key assignments at any time, use the listen key display request sequence: FUNC\_\_DISPLAY\_\_3.)

☞ If a key will not accept an assignment, the special list that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.

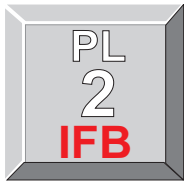
### 3.5.2.5 Assigning an IFB to a Key

IFB (Interrupt Foldback) is a special type of communication in which an intercom port's output normally hears an audio program source connected to some intercom input port. The intercom output port is called the IFB output and the program input port is called the IFB input. When a keypanel operator talks to the IFB output, the IFB input is interrupted to permit the keypanel operator to be heard clearly by the person at the IFB output. The IFB input is restored when the keypanel operator is finished talking. IFB's are setup by defining the IFB inputs and outputs using the intercom system configuration software. Once an IFB is setup, you may assign it to a key at your keypanel (provided that IFB assignment has not been restricted or disabled in the intercom system configuration software). Assign an IFB to a key as follows:

1. Tap the FUNC key.



2. Tap the IFB key.



3. If the IFB is located in a remote intercom system, enter the intercom system number (5 in this example). Otherwise, skip to step 4.



☞ Intercom system numbers are the numbers that appear in the “Icm” column in CStrunk when you select “Names” or “Setup” from the Intercoms menu.

4. Enter the IFB number (2 in this example).

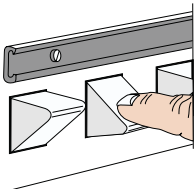


☞ If the IFB is in a remote intercom system, you must enter 2 digits by adding a leading zero if required. If the IFB is in the local intercom system, you do not have to enter a leading zero.

5. Tap the PGM key.



6. Press a talk key.



The name of the IFB will appear in the alpha-numeric display above that talk key (on keypanels so equipped).

☞ If a key will not accept an assignment, the IFB that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.

### 3.5.2.6 Assigning an ISO to a Key

ISO is a special type of communication used with party lines that have been setup using the intercom system's party line feature. ISO is used when a keypanel operator wants to isolate a member of a party line to give instructions without interference from other communications on the party line. Additionally, ISO's can be setup so that the person at the keypanel is also cutoff from all other intercom communications during ISO activation. ISO's are typically used in a television broadcast environment to provide directions to specific cameras operating on a camera party line. ISO's are setup using the intercom system configuration software. Once an ISO has been setup you may assign a key on your keypanel to use the ISO (unless restrictions have been imposed, using the intercom system configuration software, to prevent key assignment from keypanels). Assign an ISO to a key as follows:

1. Tap the FUNC key.



2. Tap the ISO key.



3. If the ISO is located in a remote intercom system, enter the intercom system number (5 in this example). Otherwise, skip to step 4.



☞ Intercom system numbers are the numbers that appear in the "Icm" column in CStrunk when you select "Names" or "Setup" from the Intercoms menu.

4. Enter the ISO number (2 in this example).

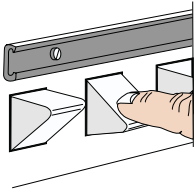


☞ If the ISO is in a remote intercom system, you must enter 2 digits by adding a leading zero if required. If the ISO is in the local intercom system, you do not have to enter a leading zero.

5. Tap the PGM key.



6. Press a talk key.



The name of the ISO will appear in the alpha-numeric display above that talk key (on keypanels so equipped).

- ☞ If a key will not accept an assignment, the ISO that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignments.

### 3.5.2.7 Assigning a Relay to a Key

The relay feature works with the 16 GPI outputs of an optional UIO-256 Universal Input / Output Frame. The relay feature also works with the 8 GPI outputs of your intercom system (available at J27 on a Zeus Frame, J903 on an ADAM CS Frame, and J11 on the XCP-ADAM-MC Master Controller Breakout Panel in an ADAM Intercom System). You can assign a keypanel key to control a GPI output from any of these devices, and then use that key and output to control an external device. For example, you could use a keypanel key to control lighting. Or, you could assign a relay as a level 2 talk key assignment in a stacked talk key arrangement to both send audio and key a device, such as a paging amplifier or a 2-way radio. To use a GPI output in a stacked talk key arrangement, see “Programming a Stacked Talk Key”, page [24](#). To assign a GPI output as a standard key assignment, use the following procedure:

1. Tap the FUNC key.



2. Tap the RELAY key.

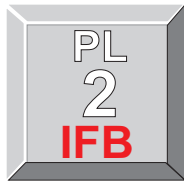
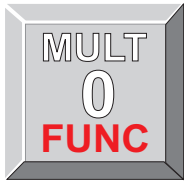


3. If the relay is located in a remote intercom system, enter the intercom system number (5 in this example). Otherwise, skip to step 4.



☞ Intercom system numbers are the numbers that appear in the “Icm” column in CStrunk when you select “Names” or “Setup” from the Intercoms menu.

4. Enter the relay number (2 in this example).

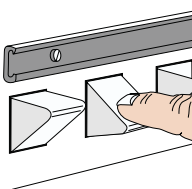


☞ If the relay is in a remote intercom system, you must enter 2 digits by adding a leading zero if required. If the relay is in the local intercom system, you do not have to enter a leading zero.

5. Tap the PGM key.



6. Press a talk (or listen) key.



If a talk key is pressed, the name of the relay will appear in the alpha-numeric display above that talk key (on keypanels so equipped). If a listen key is pressed, the relay name will appear briefly in the alpha-numeric display below that key, and after a few seconds, the talk key assignment for that key will reappear. (To check listen key assignments at any time, use the listen key display request sequence: FUNC\_\_DISPLAY\_\_3.)

☞ If a key will not accept an assignment, the relay that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignments.

### 3.5.2.8 Programming a Stacked Talk Key

A stacked talk key activates two types of communication at once. For example, a stacked talk key could simultaneously activate audio output to a transmitter and key the transmitter using a relay. The audio output is called a level 1 assignment and the relay is called a level 2 assignment. Anything that could be programmed as a normal talk key assignment may be stacked (except that all-call cannot be assigned to level 2). To program a stacked talk key:

1. Program level 1 exactly as you would any talk key assignment.
2. Program level 2 like any talk key assignment, except enter 00 before the key sequence.

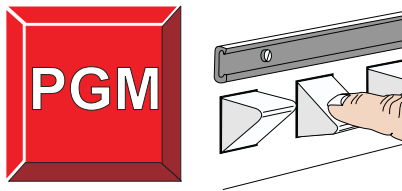
Example: Assign panel number 45 of the local intercom as the level 1 key assignment and assign relay 5 of the local intercom as level 2:



## LEVEL 1: PANEL 45



## LEVEL 2: RELAY 5



If the keypanel has alpha-numeric displays, the level 2 key assignment will display briefly after the talk key is pressed.

☞ If a key will not accept an assignment, the destination (relay, intercom port etc.) that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.

### 3.5.2.9 Clearing a Level 2 Talk Key Assignment

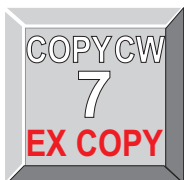
Clear a level 2 assignment by clearing the level 1 assignment. See “Clearing or Canceling a Key Assignment”, page [29](#).

## 3.5.3 PROGRAMMING KEY ASSIGNMENTS USING COPY

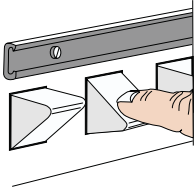
There are two ways to copy key assignments: 1) you can copy a call from the incoming messages window to a key; or 2) you can copy one key assignment to another key.

### 3.5.3.1 Copying a Call from the Incoming Messages Window to a Key

1. While the caller's name is displayed in the incoming messages window, tap the COPY CW key.



2. Press the talk or listen key to which the call is to be copied.



If a talk key is pressed, the name of the key assignment that you are copying will appear in the alpha-numeric display above that talk key (on keypanels so equipped).

If a listen key is pressed, the copied name will appear briefly in the alpha-numeric display below that key, and after a few seconds, the talk key assignment for that key will reappear. (To check listen key assignments at any time, use the listen key display request sequence: FUNC\_\_DISPLAY\_\_3.)

3. Repeat the steps to assign additional keys.

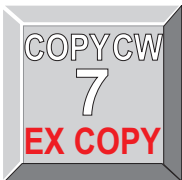
☞ If a key will not accept an assignment, the destination (intercom port, party line etc.) that you are trying to assign may have been restricted (not enabled) by the intercom configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.

### 3.5.3.2 Copying One Key Assignment to Another Key

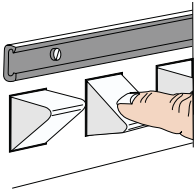
1. Tap the FUNC key.



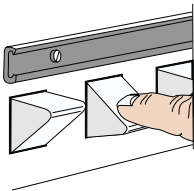
2. Tap the EX COPY key.



3. Press the talk or listen key from which you wish to copy.



4. Press the talk or listen key to which you wish to copy.



If a talk key is pressed, the name of the key assignment that you are copying will appear in the alpha-numeric display above that talk key (on keypanels so equipped). If a listen key is pressed, the copied name will appear briefly in the alpha-numeric display below that key, and after a few seconds, the talk key assignment for that key will reappear. (To check listen key assignments at any time, use the listen key display request sequence: FUNC\_\_DISPLAY\_\_3.)

5. Repeat the steps to assign additional keys.

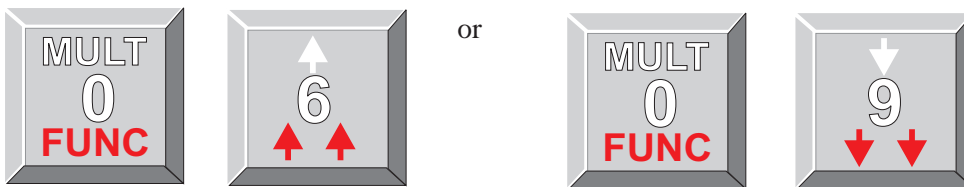
☞ If a key will not accept an assignment, the destination (intercom port, party line etc.) that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.

### 3.5.4 PROGRAMMING KEY ASSIGNMENTS USING ALPHA SCROLLING

Alpha scrolling lets you scroll through a list of names of panels, party lines etc. in the incoming messages window. Once the desired name is displayed in the window, you can copy it to a key. There are four scrolling modes: intercom, type, prefix and single-step. The following example demonstrates their use.

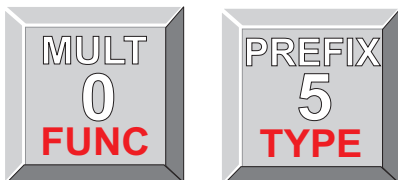
Example: Assign a port to a key using the various scrolling modes.

1. If the port is located in a remote intercom system, tap FUNC ↑ or FUNC ↓ to enter intercom scroll mode and scroll up or down the list of intercoms in the incoming messages window. Otherwise, skip to step 2.

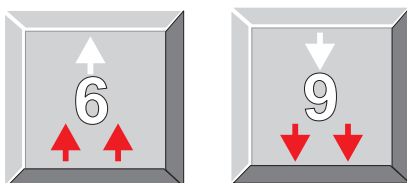


☞ You cannot scroll for remote intercom systems until trunking has been setup using CStrunk and the intercom system configuration software.

2. When the desired intercom system name is displayed, or when making an assignment in the local intercom system, tap FUNC\_\_TYPE to activate type scroll mode.



3. Use the ↑ ↓ keys to select the desired type of communication in the incoming messages window. (See the abbreviations which follow.) In this example, you would scroll to “P-P”.



☞ The following abbreviations are used for types of communication:

P-P Point-to-Point

PL Party Line

IFB IFB

SPCL Special List

RLY Relay

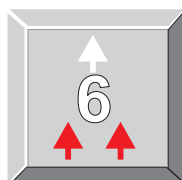
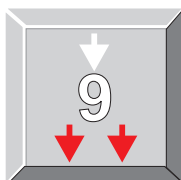
ISO ISO

- When the desired type of communication has been selected, press PGM to retrieve the requested list. Pressing PGM also exits type scroll mode and places the keypanel in single-step scroll mode.



☞ In some cases, “WAIT” may display briefly while the requested list is being retrieved.

- When the keypanel is in single-step scroll mode it may take a long time to scroll to the desired name (this is particularly true of point-to-point lists). To speed up the process, you can use prefix scroll mode. Prefix scrolling mode scrolls through a list in alpha-numeric order, but displays only the first occurrence of each two-character prefix. For example, if your intercom system had users 1CAM, 2CAM, 3CAM, 1DIR and 2DIR, prefix scrolling would display 1CAM followed by 1DIR. Once you locate a desired two-character prefix using prefix scroll, you can switch back to single-step scrolling to make your final selection. Tap PREFIX to enter prefix scroll mode, then use the arrow keys to scroll.



As you scroll, the currently selected name will be displayed in the incoming messages window.

- When you locate a name with the same first two characters as the name you are looking for, tap the PGM key to return to single-step scrolling mode, then use the arrow keys to make your final selection.

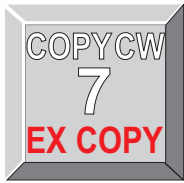


☞ You can return to prefix scroll mode again by pressing PREFIX.

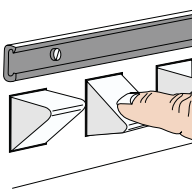
☞ If you cannot locate the name that you are looking for in a scroll list, that name may have been restricted (not enabled) using the intercom system configuration software. In this case, you will not be able to make the key assignment, and you will have to talk to the intercom system administrator to make the change for you.

- Copy the selected port to a talk or listen key:

- a. Tap COPY CW



- b. Press the talk or listen key you want to copy to.



If a talk key is pressed, the name of the key assignment that you are copying will appear in the alpha-numeric display above that talk key (on keypanels so equipped).

If a listen key is pressed, the copied name will appear briefly in the alpha-numeric display below that key, and after a few seconds, the talk key assignment for that key will reappear. (To check listen key assignments at any time, use the listen key display request sequence: FUNC\_\_DISPLAY\_\_3.)

- c. Repeat steps a and b to copy the assignment to additional keys.

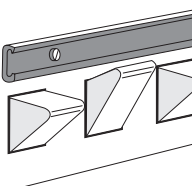
☞ If a key will not accept an assignment, the destination (intercom port, party line etc.) that you are trying to assign may have been restricted (not enabled) by the intercom system configuration software. The intercom system configuration software can also be used to restrict individual keypanel keys to prevent key assignment.

### 3.5.5 CLEARING OR CANCELING A KEY ASSIGNMENT

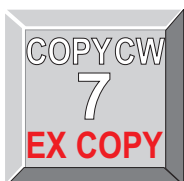
There are two ways to clear a key assignment:

#### 3.5.5.1 Method 1: Clearing the Incoming Messages Window and Copying it to a Key

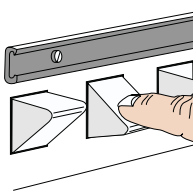
1. Clear the incoming messages window, if necessary, by momentarily placing the incoming messages key in the up position.



2. Tap the COPY CW key.



3. Tap the key to be cleared. This can be either a talk or listen key.



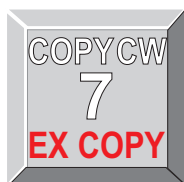
☞ If a key will not clear, restrictions may have been imposed using the intercom system configuration software.

### 3.5.5.2 Method 2: Copying a Blank Key Assignment to the Key that You want to Clear

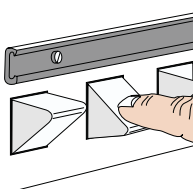
1. Tap the FUNC key.



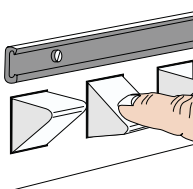
2. Tap the EX COPY key.



3. Tap the blank key.



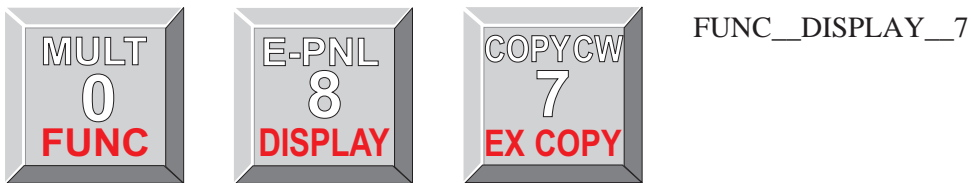
4. Tap the key that you want to copy to. This can be either a talk or a listen key.



☞ If the key will not clear, it may have been restricted using the intercom system configuration software.

### 3.5.6 ACTIVATING THE TONE GENERATOR

You can check a keypanel's audio send and receive paths to and from the matrix using the built-in tone generator. To activate the tone generator, enter:



To check the audio path to and from the intercom matrix, assign a talk key on the keypanel to talk to itself. When you activate the talk key, you should be able to hear the tone from the keypanel speaker. To turn off the tone generator, press the CLR key.

### 3.5.7 CALLING A DESTINATION THAT DOES NOT HAVE A TALK KEY ASSIGNED

Occasionally, you may need to talk to a keypanel that does not have a key assigned on your keypanel. You can create a temporary talk key using the incoming messages key. Use the scrolling modes previously described, and when the desired name is displayed in the incoming messages window, press the incoming message key to talk. (Note that this procedure is not recommended for use with belt packs or party lines, since you won't be able to hear them.)