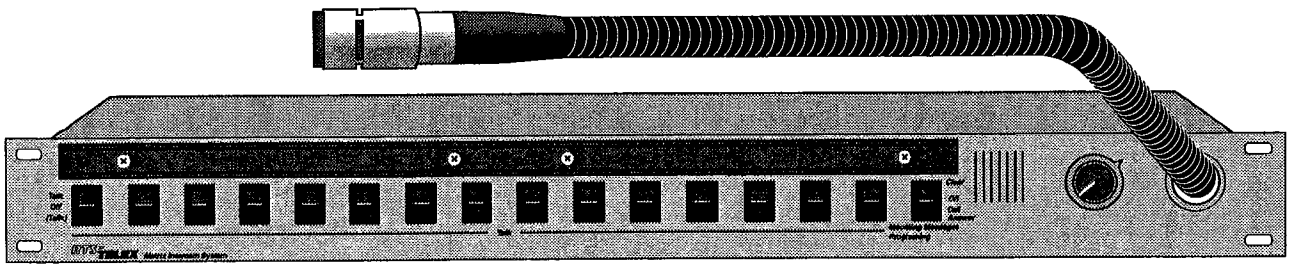
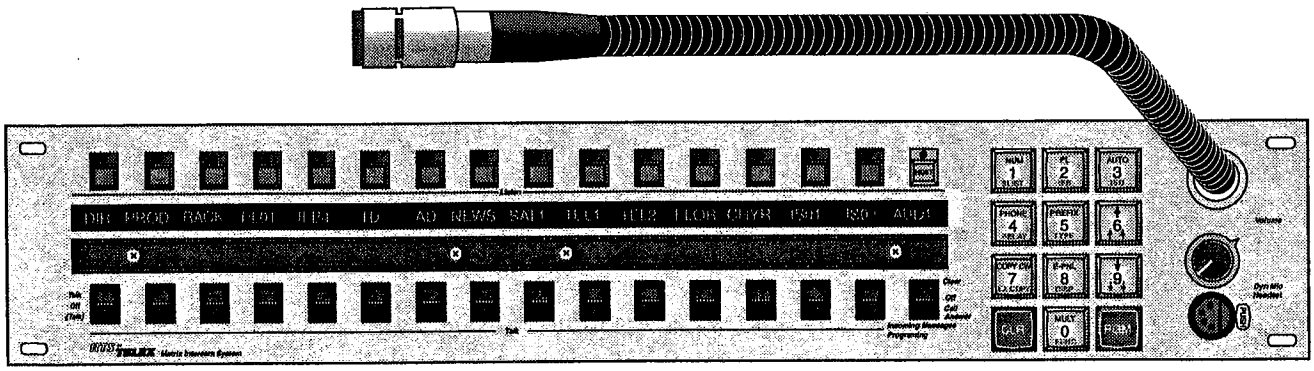
ADAM™
Advanced Digital Audio Matrix

OPERATION MANUAL

KP95, KP96 and KP97

Intercom Keypanels





RTS™

9350-7010-000 Rev G 4/98

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Factory Service Department
Telex Communications, Incorporated
8601 E Cornhusker Hwy
Lincoln, NE 68505 U.S.A.

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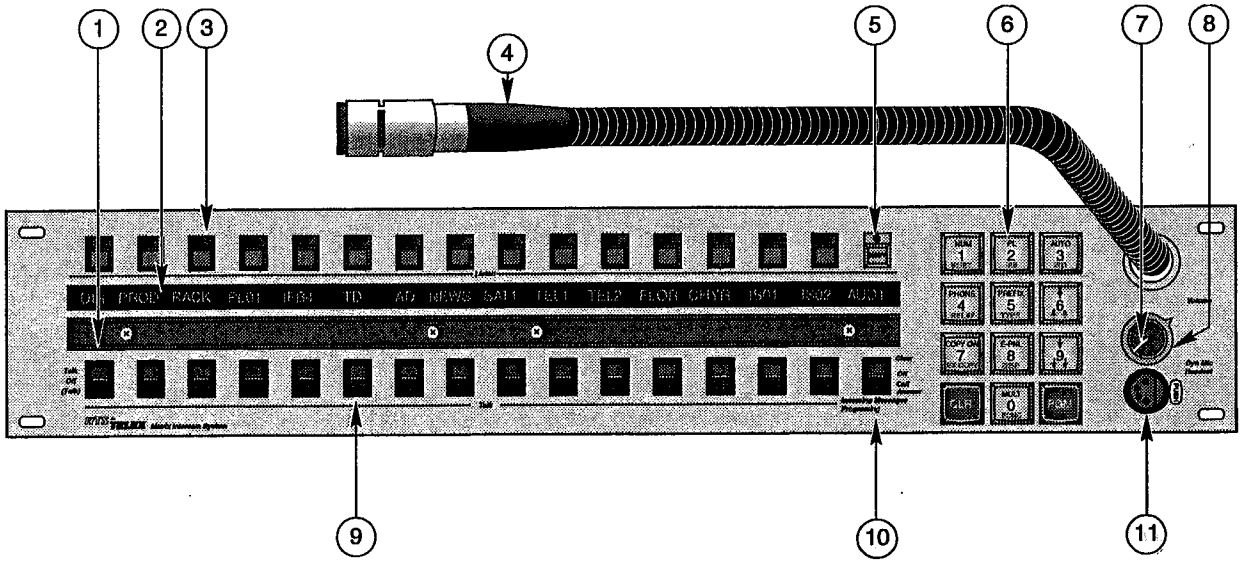
38109-709 Rev A 10/97

SECTION 1:

KEYPANEL OPERATION



1. Designation Strip Holder
2. Display Window
3. Listen Keys
4. Gooseneck Microphone
5. Headset On/Off Key
6. Programming Keypad and Loudspeaker
7. External Line Input Volume
8. Intercom Volume
9. Talk Keys
10. Incoming Messages Window and Key
11. Headset Connector

Figure 1-1
Keypanel and Expansion Panel Reference View
(Features may vary, depending on model)

DESCRIPTION OF REFERENCE VIEW

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 alpha-numeric displays or LED's, depending on the keypanel model.

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: The programming keypad can be used to call a keypanel, party line etc. that does not have a *Talk* key assigned. The programming keypad can also be used to change keypanel key assignments and to display additional information about the keypanel. (See Section 2 of this manual for further information).

   When a keypanel is equipped with a programming keypad, the keypanel's 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 (KP96 and KP97 Series keypanels with the optional KP-96-RC Rear Connector Plate only).

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 stations, 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. 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.

OPERATION

POWER-UP

Power Switch

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

Power-up Indications

Stations 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 (****).

Stations 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 (****).

USING A HEADSET WITH THE KEYPANEL

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.

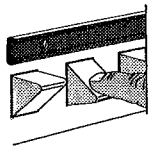
VOLUME ADJUSTMENT

Adjust intercom volume using the outer volume control knob.

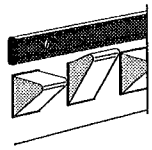
If an external line input is connected, adjust its volume using the inner volume control knob.

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 note 1, below.)

3. When you are finished with your conversation, turn off the *Talk* (and *Listen*) keys.

Notes:

1. 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 2-9.

2. 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 of the local intercom system 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.

3. 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 Wink*, on page 1-1 of the Keypanel Installation Manual (located in Section 2 of the 3-ring binder) for further information.

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. 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* 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.

Note: 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.

SECTION 2:

PROGRAMMING THE KEYPANEL

GENERAL

CSedit is the primary tool for creating and saving intercom system configurations. However, a keypanel's setup may also be modified using the programming keypad on the keypanel, provided restrictions have not been imposed using CSedit. If you try to program a restricted key or function, the programming will be ignored.

Setup changes made at the keypanel immediately become part of the intercom system configuration. These changes will be retained in the master controller during loss of power, but if a permanent record is desired, the changes should be uploaded to CSedit and saved to disk. (Select "Open On-Line" from the CSedit Intercom menu, then select "Save to File" from the File menu.)

KEYPAD KEY LABELING

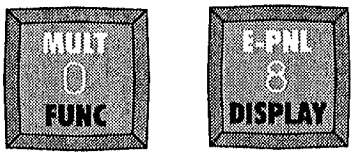
- The CLR key is used to cancel a program sequence. It is a good idea to start any program sequence by first tapping this key to clear any uncompleted programming sequence.
- The white labels on some keys indicate programming sequences that start by simply tapping that key. For example, to program a 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 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.

DISPLAY REQUESTS

DISPLAY REQUESTS USING KEYPAD SEQUENCES

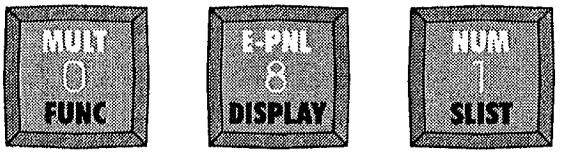
There are a number of keypad key sequences which may be used to request information about the keypanel and its current setup.

All display request sequences start with FUNC—DISPLAY



Keypanel Identification

FUNC—DISPLAY—1

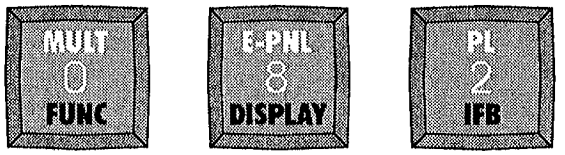


This sequence displays the panel number of the keypanel in the *Incoming Messages* window for about 2 seconds.

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 activate audio output to a transmitter and also activate 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 display the level 2 assignments enter:

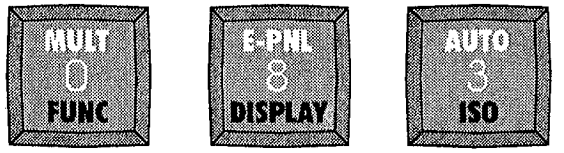
FUNC—DISPLAY—2



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.

Listen Key Assignments

FUNC—DISPLAY—3

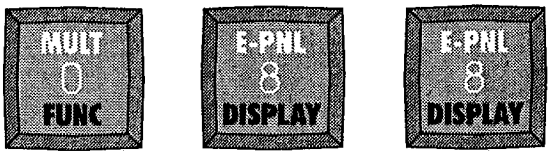


This sequence displays all *Listen* key assignments for about 10 seconds (keypanels with alpha-numeric *Talk* key displays only). "LSTN" displays in the *Incoming Messages* window.

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.

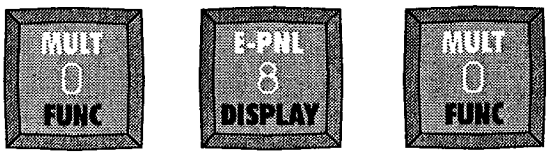
FUNC—DISPLAY—E-PNL



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.

Diagnostics Mode

FUNC—DISPLAY—0



This mode tests the panel *Talk* keys and displays.

All alpha-numeric displays show a % symbol. When a *Talk* key is pressed up or down, the display changes to "OK". This confirms proper key operation.

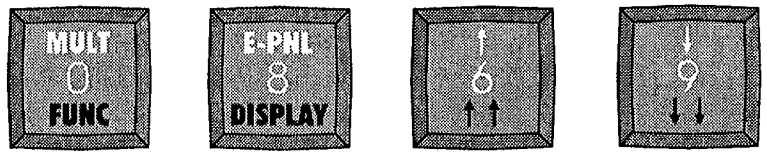
If the keypanel uses LED's for the *Talk* key displays, the LED's will all turn on. When a *Talk* key is pressed up or down, the LED for that key will turn off to confirm proper operation.

Tap the CLR key to exit diagnostic mode.

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:

1. FUNC—DISPLAY ↑↓ to scroll up or down in the list of display requests.



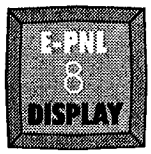
2. The display request names will appear in the *Incoming Messages* window as listed below. When the desired display request name is selected, tap the PGM key to view the requested information. Press the CLR key at any time to exit.

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. (See page 2-17 for key type abbreviations.)
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 2-19.)
EPNL	Briefly displays the setup page numbers of the main keypanel and any connected expansion panels (same as FUNC—DISPLAY—8).
V8.0	Displays current software version. (The PGM key causes no further action.)
GAIN	(For use with ADAM systems only.) 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.
MVOL	(For use with ADAM systems only.) Used to adjust the master volume. After selecting MVOL, wait a few seconds for the master volume level to display, then use the ↑↓ keys to change the level.
TEST	Enters test mode (same as FUNC—DISPLAY—0).

ASSIGNING SETUP PAGES

To assign a setup page to the main keypanel or any connected expansion panels:

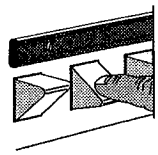
1. On the main keypanel, tap the E-PNL key.



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

3. Tap the PGM key.

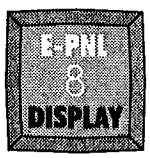
4. On the desired keypanel or expansion panel, press any *Talk* or *Listen* key. If the panel has alpha-numeric displays, the new key assignments should appear in a few moments.

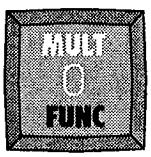


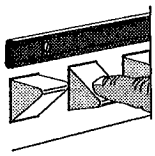
Notes

- 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.

- On expansion panels only, you can clear the page assignment by entering E-PNL—0—PGM, then pressing any key on the expansion panel.







PROGRAMMING TALK AND LISTEN KEYS

GENERAL

There are three ways to program *Talk* and *Listen* keys:

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.

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.

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 in CSedit, 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 2-9. 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.

PROGRAMMING KEY ASSIGNMENTS USING KEYPAD NUMERIC ENTRY

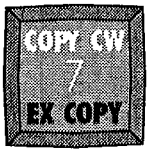
Note: When using numeric entry, each programming step must be completed within 4-5 seconds. Otherwise, the sequence will automatically be cleared.

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:

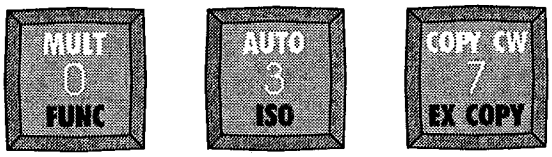
1. Tap the NUM key.

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.



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

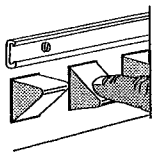
3. Enter the panel number of the keypanel, belt pack etc. that you want to assign to a key (37 for example:)



Note: If the panel number is for a remote intercom system, you must always enter 3 digits by adding leading zeros as shown above. 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.



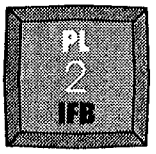
If a *Talk* key is pressed, the new assignment will appear in the alpha-numeric display above that key (on keypanels so equipped).

If a *Listen* key is pressed, the new assignment 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.)

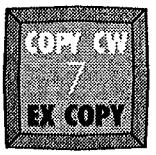
Assigning a Party Line to a Key

A party line is a group of intercom stations that can always talk and/or listen to each other. Party lines are set up in CSedit. 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. (Note: Intercom system numbers are the numbers that appear in the "Icm" column in CStrunk when you select "Names" or "Setup" from the Intercoms menu.)

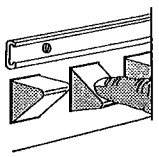


3. Enter the party line number (4 in this example).

Note: If the party line is in a remote intercom system, you must always enter 2 digits by adding leading zeros if required. If the party line 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.



The name of the party line will appear in the alpha-numeric display above that *Talk* key (on keypanels so equipped).

Notes

- If the party line is located in a remote intercom system, and the *Talk* key will not accept the key assignment, make sure that the "PL Univ Scroll Restricted" flag for that party line has been turned off using CSedit on the remote intercom system.

- 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*, page 2-9 for further information.

Assigning a Special Function to a Key

Special Functions are additional key assignments that can be programmed to *Talk* and *Listen* keys. There are five special functions available. Each special function has a default two-character name for display purposes (the default names can be changed in CSedit):

Name	Description
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. Auto Follow is the most often used *Listen* key assignment, because it allows the keypanel user to reassign the *Talk* key without having to also reassign the *Listen* key.
AL	Auto Listen (for *Listen* keys only): This assignment works like auto follow, except that listen is automatically engaged when the *Talk* key is pressed. Auto Listen 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. Auto Reciprocal is commonly used 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).

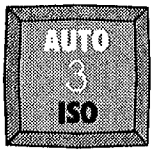
To assign a special function to a key:

1. Tap the AUTO key.

2. Select a special function:

tap 1 for Auto Listen, or...

tap 2 for Auto Follow, or...



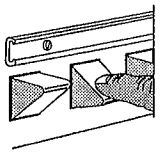
tap 3 for Auto Mute, or...

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).



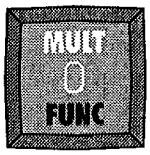
If a *Talk* key is pressed for All Call, "AC" will appear in the alpha-numeric display above the key (on keypanels so equipped). If a *Listen* key is pressed, the name of the selected auto function will briefly appear in the display below the key.

Note: If your intercom system is interconnected (trunked) with other intercom systems, you can assign special functions for use with local or remote key assignments, but the auto functions must be assigned from the local matrix.

Assigning a Special List to a Key

Intercom stations, party lines etc. are always assigned to a special list using CSedit. 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.

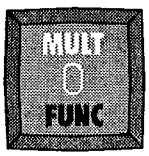


2. Tap the SLIST key.

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.

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

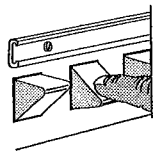
4. Enter the special list number (4 in this example).



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

5. Tap the PGM key.

6. Press a *Talk* (or *Listen*) key.



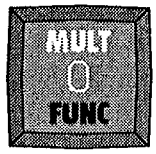
The name of the special list will appear in the alpha-numeric display above that *Talk* key (on keypanels so equipped).

Note: If the special list is located in a remote intercom system, and the *Talk* key will not accept the key assignment, make sure that the "Spl Univ Scroll Restricted" flag for that special list has been turned off using CSedit on the remote intercom system.

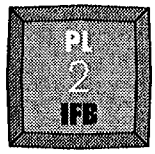
Assigning an IFB to a Key

An IFB (Interrupt Foldback) bus is an output which normally hears a program source. When a keypanel calls the IFB output, the program is interrupted and the caller can talk to the person at the IFB output. IFB program sources and outputs are setup using CSedit. Once an IFB is setup, you may assign it to a key at your keypanel (unless access to the IFB has been restricted by CSedit). To assign an IFB to a key:

1. Tap the FUNC key.



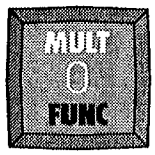
2. Tap the IFB key.

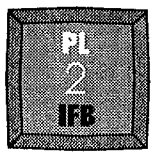


3. If the IFB is located in a remote intercom system, enter the intercom system number (5 in this example). Otherwise, skip to step 4.

Note: 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).

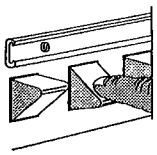




Note: If the IFB is in a remote intercom system, you must enter 2 digits by adding leading zeros if required. If the IFB is in the local intercom system, you do not have to enter any leading zeros.

5. Tap the PGM key.

6. Press a *Talk* key.



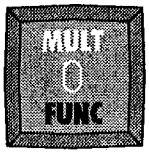
The name of the IFB will appear in the alpha-numeric display above that *Talk* key (on keypanels so equipped).

Note: If the IFB is located in a remote intercom system, and the *Talk* key will not accept the key assignment, make sure that the "Univ Scroll Restricted" flag for that IFB has been turned off using CSedit on the remote intercom system.

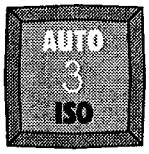
Assigning an ISO to a Key

An ISO channel allows a keypanel user, by pressing a *Talk* key, to completely isolate, or cut off, communications at a camera or other device (including another keypanel) and establish a private conversation with that camera or device. Releasing the ISO key re-establishes normal communications. Cameras and other devices are assigned to ISO's using CSedit. Once an ISO has been setup using CSedit, you may assign a key on your keypanel to use the ISO (unless access to the ISO has been restricted by CSedit). To assign an ISO to a key:

1. Tap the FUNC key.



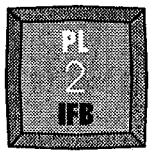
2. Tap the ISO key.



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.

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

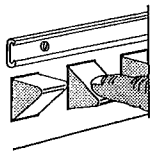
4. Enter the ISO number (2 in this example).



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

5. Tap the PGM key.

6. Press a *Talk* key.



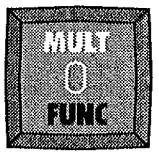
The name of the ISO will appear in the alpha-numeric display above that *Talk* key (on keypanels so equipped).

Note: If the ISO is located in a remote intercom system, and the *Talk* key will not accept the key assignment, make sure that the "Univ Scroll Restricted" flag for that ISO has been turned off using CSedit on the remote intercom system.

Assigning a Relay to a Key

If your intercom system is equipped with relay frames, you can assign a relay to a keypanel key and then press the key to activate the relay. To assign a relay to a key:

1. Tap the FUNC key.

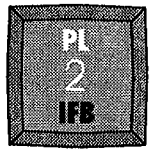


2. Tap the RELAY key.

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.

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

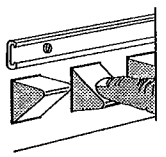
4. Enter the relay number (2 in this example).



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

5. Tap the PGM key.

6. Press a *Talk* (or *Listen*) key.



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

Note: If the relay is located in a remote intercom system, and the *Talk* key will not accept the key assignment, make sure that the "Univ Scroll Restricted" flag for that relay has been turned off using CSedit on the remote intercom system.

Programming a Stacked Talk Key

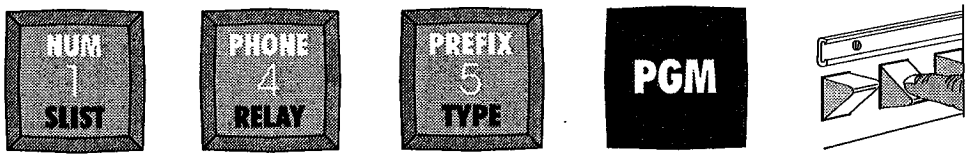
A stacked *Talk* key activates two types of communication at once. For example, a stacked *Talk* key could simultaneously activate audio output to a transmitter and key the transmitter using a relay. The audio output is called a level 1 assignment and the relay is called a level 2 assignment. Anything 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.

Clearing a Level 2 Talk Key Assignment

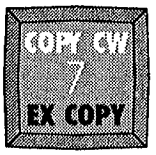
To clear a level 2 assignment, you must clear the level 1 assignment as previously described. (For example by clearing the *Incoming Messages* window and then copying the *Incoming Messages* window to the key.)

PROGRAMMING KEY ASSIGNMENTS USING COPY

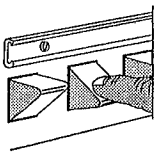
There are two ways to copy key assignments: 1) you can copy a call from the *Incoming Messages* window to a key; or 2) you can copy one key assignment to another key.

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.



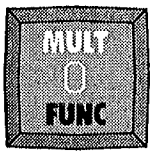
2. Press the key to which the call is to be copied.



Note: If the caller is located in a remote intercom system, and the caller's keypanel has its "Port Access Restricted" flag set in CSedit, you will not be able to copy the caller to a key.

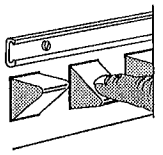
Copying One Key Assignment to Another Key

1. Tap the FUNC key.

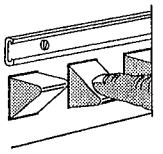


2. Tap the EX COPY key.

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.

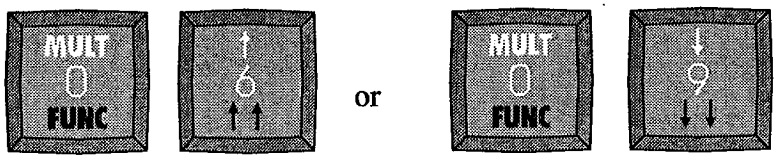


PROGRAMMING KEY ASSIGNMENTS USING ALPHA SCROLLING

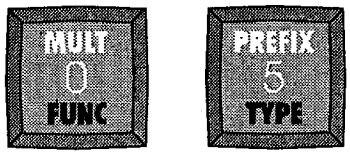
Alpha scrolling lets you scroll through a list of names of panels, party lines etc. in the *Incoming Messages* window. Once the desired name is displayed in the window, you can copy it to a key. There are four scrolling modes: intercom, type, prefix and single-step. The following example demonstrates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

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

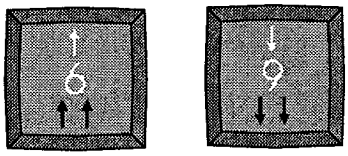
1. If the port is located in a remote intercom system, tap FUNC ↑ or FUNC ↓ to enter **intercom scroll** mode and scroll up or down the list of intercoms in the *Incoming Messages* window. Otherwise, skip to step 2.



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 "P-P" in the *Incoming Messages* window.



Note-Key Type Abbreviations: The following abbreviations are used for types of communication.

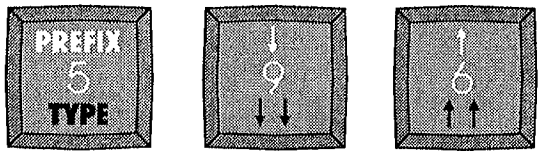
P-P	Point-to-Point
PL	Party Line
IFB	IFB
SPCL	Special List
RLY	Relay
ISO	ISO

4. Press PGM to retrieve the requested list. Pressing PGM also exits type scroll mode and places the keypanel in **single-step** scroll mode.

Note: If the requested list is for a remote intercom system, "WAIT" should display while the list is being retrieved. After a few moments the first name in the requested list will display. Or, if their are no names in the list, "N/A" will display. If the requested list is for the local intercom system, the names in the list should display immediately. By default, CSedit restricts all names, except point-to-point names, from

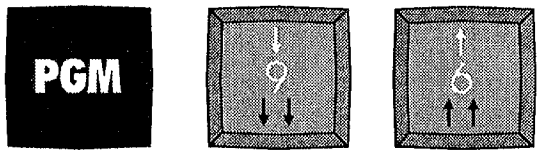
appearing in scroll lists at keypanels on remote intercom systems. This is accomplished by placing a check mark in the "Universal Scroll Restrict" field for each party line, IFB, ISO etc. You must run CSedit and turn off this restrict flag for every party line, IFB etc. that you want to make available to remote intercom systems.

5. 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 may be able to 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.

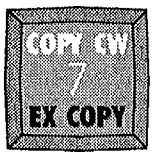
6. When you locate a name with the same first two characters as the name you are looking for, tap the PGM key to return to single-step scrolling mode, then use the arrow keys to make your final selection.



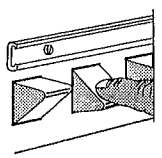
Note: You can return to prefix scroll mode if desired by again pressing PREFIX.

6. Copy the selected port to a *Talk* or *Listen* key:

   a. Tap COPY



   b. Press the *Talk* key you want to copy to.

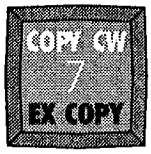


The new key assignment will appear in the alpha-numeric display above the key (on keypanels so equipped).

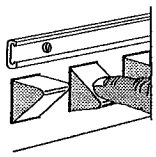
CLEARING OR CANCELING A KEY ASSIGNMENT

There are two ways to clear a key assignment:

1. Copy the key assignment of an unused key to the key that you want to clear or...



2. Clear the *Incoming Messages* window (press the *Incoming Messages* key "up"). Then, copy the *Incoming Messages* window to the key that you want to clear.



THE PROGRAMMABLE INCOMING MESSAGES KEY

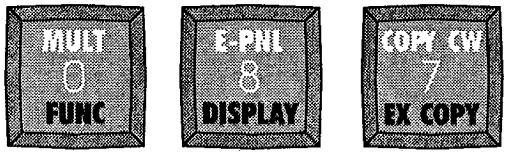
In addition to answering and clearing calls, the *Incoming Messages* key can also be programmed like any other *Talk* key. The only difference is that it does not latch in the "up" position. To clear a *Talk* key assignment from the *Incoming Messages* key, simply push the key up.

When a *Talk* key assignment is programmed on the *Incoming Messages* key, the assignment overwrites the current caller in the *Incoming Messages* queue. The remainder of the queue is not disturbed.

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:

FUNC—DISPLAY—7



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.

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 Messages* 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.)