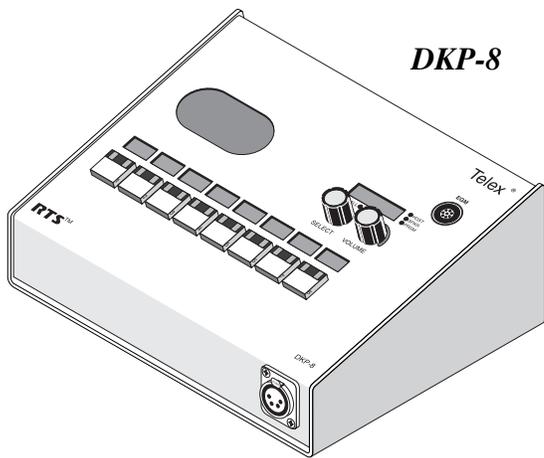**RTS® Digital Matrix Series**
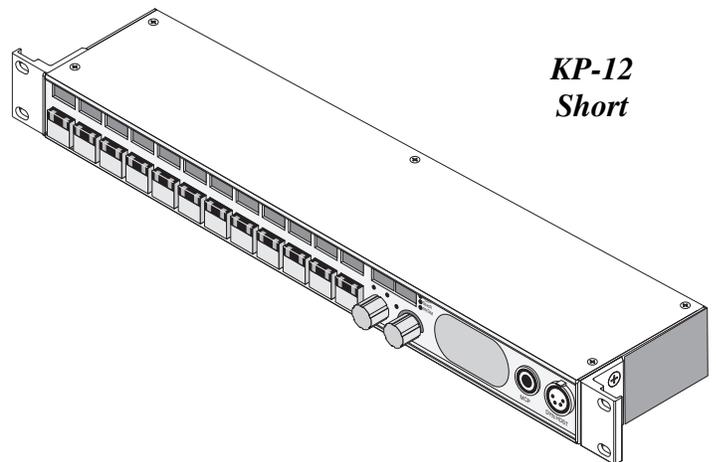Intercom Systems

User Instructions

DKP-8, DKP-12, AND KP-12 KEYPANELS

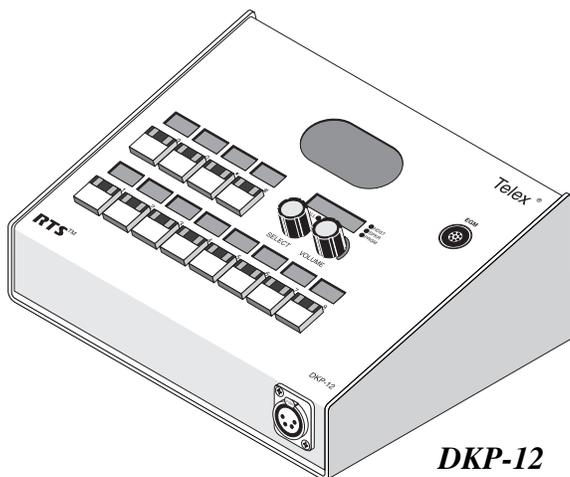## PUSH-BUTTON AND LEVER KEY VERSIONS

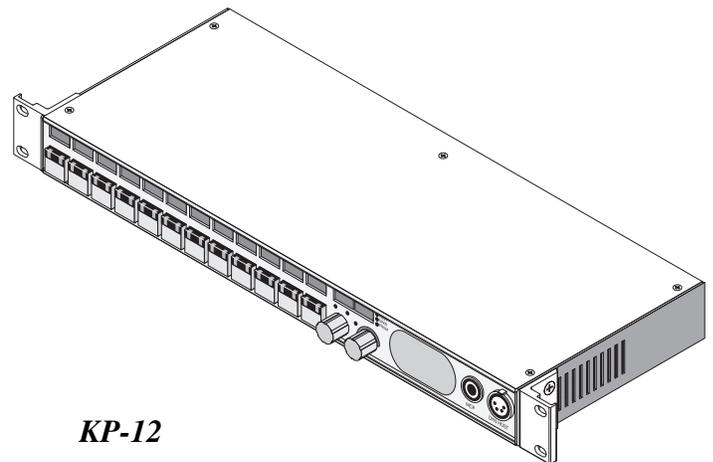*up to and including firmware version 1.05.15*

DKP-8

KP-12 Short

DKP-12

KP-12

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See the enclosed warranty card for further details.

CUSTOMER SUPPORT

Technical questions should be directed to:

Customer Service Department
RTS/Telex Communications, Inc.
12000 Portland Avenue South
Burnsville, MN 55337 USA
Telephone: 800-392-3497
Fax: 800-323-0498
Factory Service: 800-553-5992

RETURN SHIPPING INSTRUCTIONS

Customer Service Department
Telex Communications, Inc (Lincoln, NE)
Telephone: 402-467-5321
Fax: 402-467-3279
Factory Service: 800-553-5992

Please include a note in the box which supplies the company name, address, phone number, a person to contact regarding the repair, the type and quantity of equipment, a description of the problem and the serial number(s).

SHIPPING TO THE MANUFACTURER

All shipments of product should be made via UPS Ground, prepaid (you may request from Factory Service a different shipment method). Any shipment upgrades will be paid by the customer. The equipment should be shipped in the original packing carton. If the original carton is not available, use any suitable container that is rigid and of adequate size. If a substitute container is used, the queipment should be wrapped in paper and surrounded with at least four (4) inches of excelsior or similar shock-absorbing material. All shipments must be sent to the following address and must include the Proof of Purchase for warranty repair. Upon completion of any repair the equipment will be returned via United Parcel Service or specified shipper, collect.

Factory Service Department
Telex Communications, Inc.
8601 Cornhusker Hwy.
Lincoln, NE 68507 U.S.A.
Attn: Service

This package should include the following:

Table
of
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READ ME FIRST

This manual is designed for two basic types of users: 1) those who are not involved in the setup or maintenance of the key-panel, but simply want to use it to communicate; and 2) those who will use the advanced features to modify the keypanel's operation and key assignments. The second type of user may also be the maintenance person and/or system administrator for the intercom system.

The first type of user should skip to "Basic Intercom Operation" on page 13. If you will also be using the optional telephone interface (with KP-12 only) refer to the information in "Telephone Operation" on page 15. Additionally, a few of the items in "Using the Top-Level Menu" on page 17 may be of interest.

The second type of user should become familiar with "Power-Up and Initial Settings" on page 9, as well as the basic operation. The advanced features are arranged in a system of menus accessible using the control labeled "SELECT" on the front panel. The entire menu structure is summarized in Table 1 on page 28, with references to the page numbers where you can find detailed information. Use this list as your starting point to become familiar with the advanced features. Be sure to also read any general information supplied at the start of each menu section. At first, the menu system might seem complicated, but navigation through it is actually quite basic, and experience has shown that users catch onto it fairly quick. From any given level, just turn the SELECT control to find the item that you want, then quickly press and release (tap) the control to select that item. For many items, brief instructions are given as you navigate. From any level in the menus, you can double-tap the SELECT control to exit to the next higher level.

Menu List for DKP-8, DKP-12, and KP-12 Keypanels

TOP LEVEL MENU. With the MENU indicator OFF, turn the SELECT control to view the following items in the call waiting window.

MENU ITEM	DESCRIPTION
--- See "Top Level Menu, - - - - (Clear call waiting)" on page 17.	Clear call waiting. Default condition of call waiting window.
Call List See "Top Menu Level, Call List Names" on page 18.	Up to 4 names that are not assigned to keys are saved for quick talk using SELECT control.
DISPLAY Menu See "Top Level Menu, Display" on page 18.	

CHANS ON	Displays a list of destinations that are currently communicating with the keypanel.
EXCLUSIVE	Displays keys assigned Exclusive rights.
GROUP 1-4	Displays keys assigned to groups using GROUP feature on KEY OPT menu.
KEY ICOM	Displays intercom system to which each talk key is assigned.
KEY TYPE	Displays type of key assignment for all assigned talk keys (P-P, PL, IFB, etc.)
LEVEL 2	Displays any level 2 talk key assignments.
LISTEN	Displays all listen key assignments
PAGE USE	Displays which setup pages are currently being used and where.
PORT NUM	Displays the intercom port number that the keypanel is connected to.
SOLO	Displays any keys that have the SOLO option assigned from the KEY OPT menu.
VERSION	Displays the firmware version for the keypanel.

MENU ITEM	DESCRIPTION
KEY LIST See "Top Level Menu, Level" on page 21.	Gets a list of all keys that are assigned on any of the 4 setup pages for quick talk using the SELECT control. Only keys that are assigned will be displayed.
LEVEL See "Top Level Menu, Level" on page 21.	Lets you adjust the listen level for any key assigned to an intercom port or party line.
LISTS See "Top Level Menu, Lists" on page 21.	

ICOM	Appears only in trunked intercoms. Lets you log onto another intercom system.
PL	Accesses the party line list to talk using SELECT control when desired party line is not assigned to a key.
IFB	Accesses the IFB list for quick talk using SELECT control when desired IFB is not assigned to a key.
IFSL	Accesses the IFSL list to talk using SELECT control when desired IFSL is not assigned to a key.
ISO	Accesses the ISO list for quick talk using SELECT control when desired ISO is not assigned to a key.
P-P	Accesses the point-to-point list to talk using SELECT control when desired destination is not assigned to a key.
RLY	Accesses the intercom system's list of relays to talk using SELECT control when desired relay is not assigned to a key.
SPCL	Accesses the special lists to talk using SELECT control when desired special list is not assigned to a key.
UPL	Access the intercom system's list of UPL resources.

MENU ITEM	DESCRIPTION
MENUS See "Top Level Menu, Menus" on page 24.	Accesses less often used features. (See,"MENU MODE See "Menu Mode" on page 27." on page 4.)

3

PAGE 1-4 See "Top Level Menu, Page (1-4)" on page 24.

Changes setup pages on the keypanel or any connected expansion panels.

TGL LISN See "Top Level Menu, TGL LISN (Toggle Listen ON/OFF)" on page 25.

Lets you activate/deactivate a key's listen assignment independently of talk. Only available on push button keypanels.

MENU MODE See "Menu Mode" on page 27.

In the top level menu, tap **SELECT** on MENUS to turn on the MENU indicator. Then, turn SELECT to view the following menus. Tap the **SELECT** control to select a menu to view items in that menu.

AUTODIAL Menu

Stores autodial numbers for use by a phone or autodial key.

KEY ASGN Menu

AUTODIAL			Assigns a key to dial a specific autodial number that was entered using the AUTODIAL menu, above.
AUTOFUNC			Assigns any of the available auto functions (also called special functions) to a key.
CLEAR			Clears talk/listen assignments. (Does not clear key options, see "CLR OPT" in KEY OPT menu.
COPY			Copies one key's assignment to another key
LISTS			
	ICOM		Accesses another intercom system for key assignment (trunked intercoms only).
	PL		Accesses party line list for key assignment
	GRP		Accesses group list for key assignment
	IFB		Accesses IFB list for key assignment.
	ISO		Accesses ISO list for key assignment.
	P-P		Accesses point-to-point list for key assignment.
	RLY		Accesses the intercom system's list of relays for key assignment.
	SPCL		Accesses special lists for key assignment.
	UPL		Accesses UPL resources for key assignment.
LOCAL I/O			Assigns relays or open collector outputs to keys. (Appears only on KP-12 with GPI module options.)
PHONE			Assigns an all-purpose phone key for use with TIF Telephone Interface.
REDIAL			Assigns a redial key for use with a TIF Telephone Interface.

KEY OPT Menu

BTN LOCK	Locks intercom keys in the ON or OFF position, or unlocks them.
CHIME	Adds a chime tone to an intercom key for incoming call announcement.
CLR OPT	Clears all options from a key.
COPY	Copies one key's options to another key.
EXCLUSIVE	Assigns keys for use with the exclusive key option.
GROUP 1-4	Assigns several keys for simultaneous activation when a group master key is activated.
LATCHING	Turns the latching feature ON or OFF for selected keys.
SOLO	Assigns a key that, while activated, will temporarily turn OFF all other active keys.

SERVICE Menu

DIMMER	Adjusts brightness of displays.
FOOT SW	Enables or Disables the use of the foot switch. (Only available if the GPI board is installed)
KEY TYPE	Select push-button or lever style keys, whichever the keypanel has.
LOCK	Locks out access to all SERVICE menu items, and locks HDST / SPKR / PRGM selection.
MIC CNTL	Selects microphone input from either a headset, panel mic or from the EXT MIC IN connector.
MIC COMP	Adjusts the MIC compression of the audio source.
MIC GAIN	Adjusts the mic gain.
MOD ASGN	Defines which keys occupy which positions on the keypanel and expansion panels.
MUTE LVL	Adjusts the amount of listen muting when talk keys are activated.
OPTO-ISO	Assign opto-isolator inputs to actuate keys, pages, etc. (KP-12 with GPI module only.) See "Menus, SERVICE, OPTO-ISO (KP-12 with GPI Module Only)" on page 45.
OUT CTRL	Assigns whether you listen to audio through either HEADSET or SPEAKER
RESET	Clears all settings that are saved locally at the keypanel.
SAVE CFG	Saves all local settings.

SET ADDR	Sets the logical keypanel number, or keypanel address.
SIDETONE	Adjusts the level of your own voice in headphones when talking. Also adjusts chime tone level.
TALLY	Provides adjustable flashing indication for any destination that is communicating with the keypanel.
TEST PNL	Tests keys, controls and displays.
TONE	Activates an internal tone generator. Used to test the talk and listen paths.
USM	Activates hot mic to matrix and/or MIC PRE OUT connector of option Rear Connector Module.
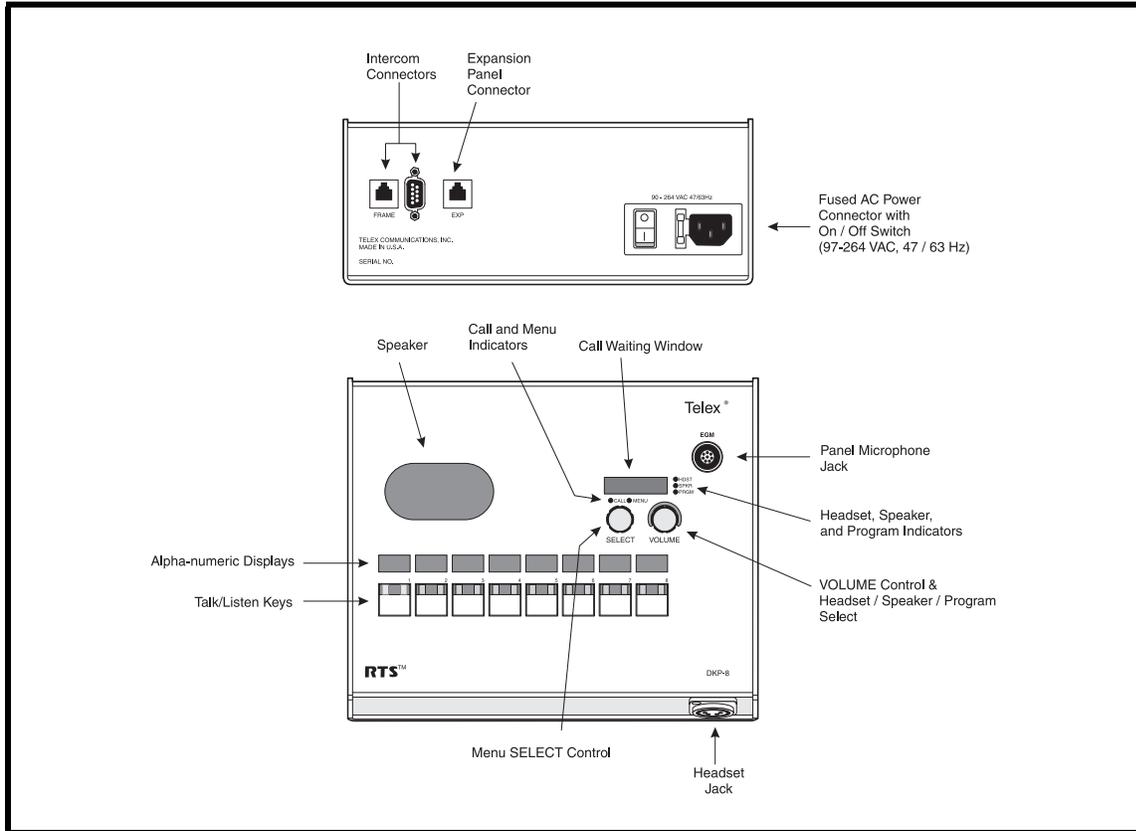
FIGURE 1. DKP-8 Keypanel Reference View (Push-button version shown)

- Although the DKP-8 has an expansion connector for connection of expansion panels and level control panels, this feature is generally not used, since the DKP-8 is a desktop unit, while expansion panels and level control panels are designed for rack mounting.
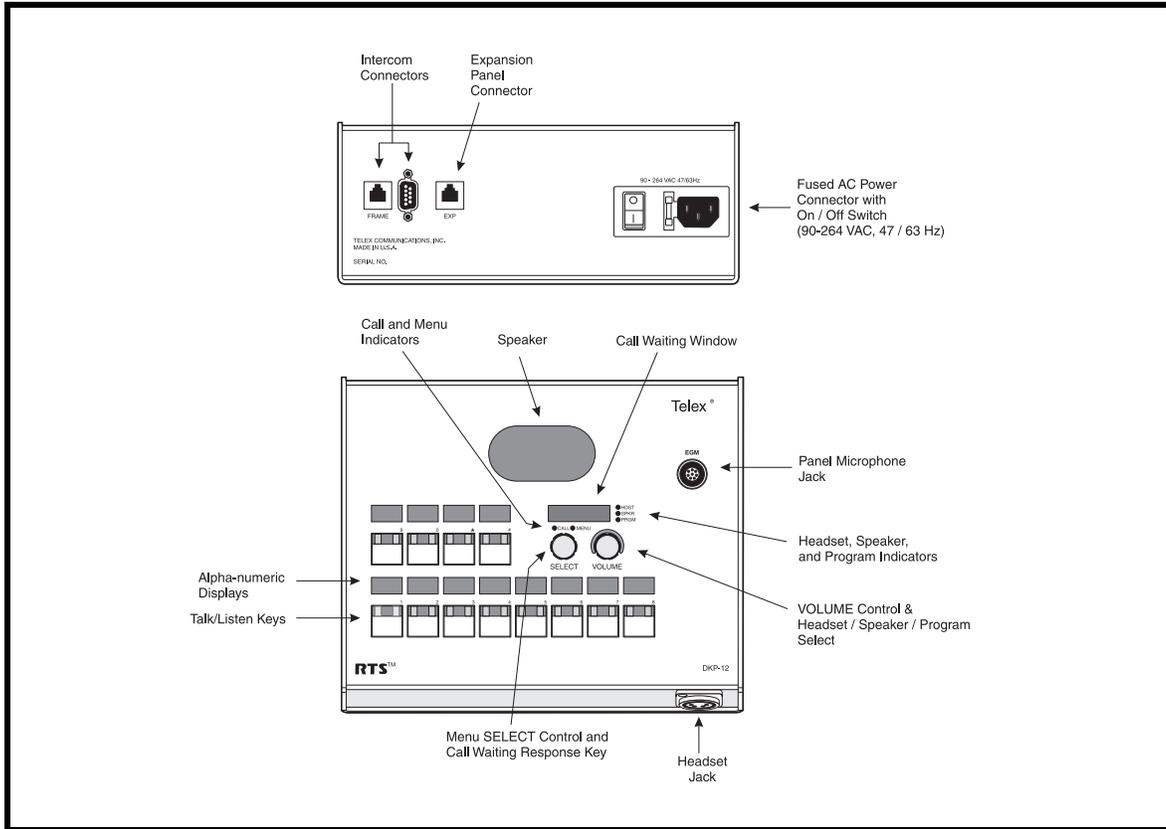
FIGURE 2. DKP-12 Keypanel Reference View (Push-button version shown).

• Although the DKP-12 has an expansion connector for connection of expansion panel and level control panels, this feature is generally not used, since the DKP-12 is a desktop unit, while expansion panels and level control panels are designed for rack mounting.
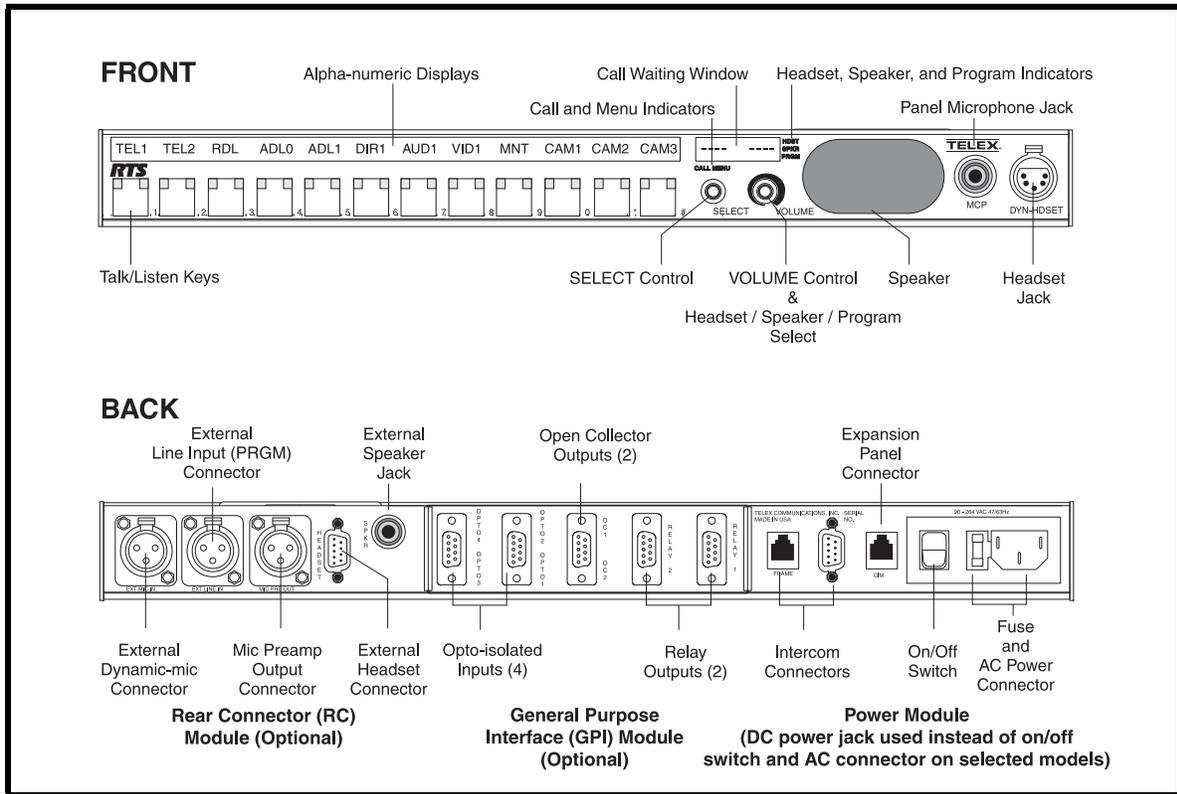
FIGURE 3. KP-12 Keypanel Reference View (Push-button version shown).

Power-Up and Initial Settings

Applying Power

Versions with an AC power connector have a power switch on the back panel. Versions with an external power supply and DC power jack do not have a power switch: plug in the power supply to apply power.

"MD1", "Key Type" and "Set Addr" Messages

- If the keypanel displays MD or KEY TYPE in the call waiting window at power-up, this indicates that service adjustments must be made before using the keypanel. To correct the MD1 service message, see "Menus, SERVICE, MOD ASGN" on page 42. To correct the KEY TYPE service message, see "Menus, SERVICE, KEY TYPE" on page 40.

Normally, when the keypanel is powered-up for the first time, the call waiting window will display SET ADDR. This means that you must set the address prior to first use of the keypanel. The address is based on the intercom port number to which the keypanel is connected as follows:

Determining the Address, CS9XXX Intercoms

For intercom port numbers ending in 1 through 9, the keypanel address is the last digit of the port number. If the last digit of the port number is 0, us 10 as the address.

Determining the Address, ADAM and ADAM CS Intercoms

Determine the keypanel's address using Table 7 on page 49.

Determining the Address, Zeus Intercom Systems

The address is the number (1-8) printed next to the connector on the back panel of the Zeus Frame. (This number repeats for each group of 8 connectors. The intercom system is able to distinguish between two keypanels set to the same address by the group where each one is connected.)

NOTE: Cronus system and the AIO-16 card do not require you to set the address because they automatically set the address when installed into the system.

Setting the Address

1. While SET ADDR is displayed, tap the **SELECT** control.
   ADDR 1 will display in the call waiting window.

2. Turn the **SELECT** control to display the address (ADDR 1 through ADDR 10) that you determined above.

3. Tap the **SELECT** control.
   While the address is being stored, the alphanumeric displays and the call waiting window will show asterisks (****). Then, the normal power-up indications will occur as described below. If you move the keypanel to a new port and need to change the address at a later time, see "Menus, SERVICE, SET ADDR" on page 46.

Power-Up Indications

After the correct keypanel address has been set, SET ADDR will no longer display at power-up. Instead, the following indications will be given:

Keypanel with Alphanumeric Displays

Alphanumeric Displays:

> During a normal power-up, the alphanumeric displays will first show asterisks (****). After a few moments, the intercom key assignments will display. If the keypanel cannot establish communications with the intercom system, all alphanumeric displays will continue to show asterisks. Check the cable connection.

Unassigned Keys:

> For each unassigned key, the display will show dashes (**- - - -**).

Keypanel without Alphanumeric Displays

The call waiting window will first display asterisks (****) then dashes (**- - - -**). If the keypanel cannot establish communications with the intercom system, the call waiting window will continue to show asterisks. Check the cable connection.

CALL / MENU Indicators

At power-up, the CALL and MENU indicators should be OFF.

HDST/SPKR/PGM volume indicator

At power-up, the selected Volume indicator is red, while the rest of them are green.

Specifications

MICROPHONE PREAMPLIFIER

Audio Input Level (at 1kΩ)

Electret Mic: -42dBu, 5kΩ

Dynamic Mic: 50dBu, 150Ω

Output Level (to matrix): +8dBu, ±0.2dBu

Max Voltage Gain, Mic to Line: 70dB, ±0.2dB

Frequency Response: 100Hz to 8000 Hz, ±3dB

TEST OSCILLATOR

Output Level (to matrix): +8dBu, ±2dBu

Output Frequency: 400Hz

HEADPHONE AMPLIFIER

Maximum Voltage Gain: 30dB

Frequency Response: 100Hz to 8000Hz, ±3dB

Headphone Impedance: 50 to 600Ω

Output Power: 150mW into 50Ω

Output Voltage Level: 8 volts peak-to-peak (max.)

Mute:

Full: 70dB min.

Partial: 0 to 30dB

Sidetone Range: 30dB

SPEAKER AMPLIFIER AND SPEAKER

Frequency Response: 100Hz to 8000Hz, ±3dB

Output Power (per amplifier): 5 watts into 4Ω

Output Voltage Level: 16 volts peak-to-peak (max.)

Volume Control Range: 70dB

Mute:

Full: 70dB min

Partial: 6dB. 0 to 30 dB adjustable

Speaker: 2 watts continuous, 4 watts peak

INTERCOM LINE INPUT/OUTPUT

Main Output: Nominal +8dBu, ±0.2dBu

Main Input: Nominal +8dBu, Peak: ±20dBu max.

External Line Input: Nominal +8dBu

GENERAL

Input Power Requirements:

AC Supply: 90-230 VAC ±10%, 50/60Hz

Environmental

Storage: -40°C to +60°C (-40°F - 140°F)

Operating: -10°C to +41°C (14°F - 105.8°F)

Dimensions:

8.156" W x 4.94" H x 9" D (207.16 mm x 125.48mm x 228.6mm)

Weight:

3.84 lbs. (1.74 kg)

Basic Intercom Operation

Keys and Displays

- Keys that are assigned for talk or talk+listen are indicated using UPPER CASE letters in the alphanumeric displays above the keys.
- Keys that are assigned for listen-only are indicated using lower case letters.
- For momentary activation of a key press and hold the key. Then, release it when finished.
- For latching operation, tap the key; it will turn ON and remain ON. Tap the key again to turn it OFF when finished.

NOTE: For lever keys only: You can independently activate talk and listen by tapping up or down.

D I R 1   Display for Talk Key

d i r 1   Display for Listen-only key

Push-button Key   Listen Indicator   Lever Key

Talk Indicator   Listen Indicator   Talk Indicator
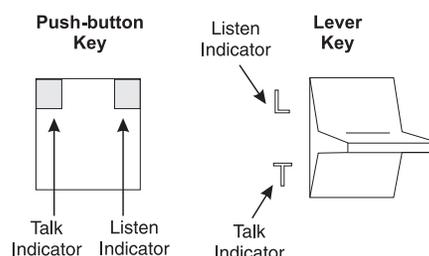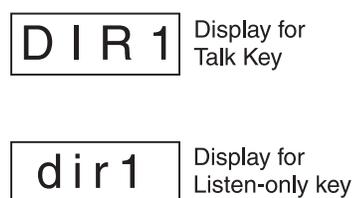
Talk and Listen Indicators

The talk and/or listen indicators turn green when a key is activated, depending on the key's assignment. For example, if the key is assigned for talk, but not for listen, only the talk indicator will turn green when the key is pressed; if the key is assigned for talk + auto-listen, both indicators will turn green when the key is activated. If there is no key assignment, they will not activate.

The talk indicator also provides some other indications, as follows:

Continuous red "in use" indication: an "in-use" indication is provided for IFB and ISO keys. An "in-use" indication is also provided for keys that are assigned to destinations in remote intercom systems (when your intercom system is equipped with optional trunking). If another keypanel is currently talking to any of these destinations, and you have a key assigned to the same destination, the talk indicator in that key will light red to indicate "in-use". If you activate the key and it turns **continuous green**, this indicated that you and the other keypanel operator are both talking to the destination. If the indicator **flashes green** when a key is activated for an IFB or a remote destination, this indicates that the other keypanel has a higher priority and you cannot talk to that destination at the current time.

Red flashing "incoming call" indication: If the talk indicator in a key starts to flash red, this indicates that the destination assigned to that key is calling you. Activate the key as described above to talk back.

NOTE: You can adjust the amount of time that displays will flash for incoming call indication. See "Menus, SERVICE, TALLY" on page 47.

Headset/Speaker/PRGM Selection and Volume Adjustment

You can select operation with a headset (HDST). Or, you can select operation with the internal speaker (SPKR) and a microphone connected at the panel microphone jack. To select either HDST or SPKR, tap the VOLUME control once. The indicator will be lit red for whichever one is currently selected. Then, turn the VOLUME control to set the level.

KP-12 Only: If the KP-12 has an optional Rear Connector Module, and an external program input source is connected, you can adjust its level independently of the intercom level. To change the program volume double-tap the VOLUME control. Then, turn the VOLUME control to adjust the program level in the headset or speaker, whichever is currently activated. Tap the VOLUME control once to quit PGM adjustment.

NOTE: After you have set everything the way you want it, you can save your settings using "Menus, SERVICE, SAVE CFG" on page 46. The keypanel will then always power-up with you settings.

If you are using a headset with ear cushions that fully enclose the ears, you may also wish to make adjustments to the sidetone level. See "Menus, SERVICE, SIDETONE" on page 47.

Flashing Call Indicator

Occasionally, a keypanel may call, and there won't be a key assigned to talk back to that caller. In this case, the caller's name will flash in the call waiting window, and the CALL indicator will flash red. Press and hold the SELECT control to talk back. The caller's name will be cleared after a period of time, but it will be retained in the call list. The **call list** is a short list of the last four names that have appeared in the call waiting window. To access the call list, simply turn the SELECT control until you locate the caller's name, then press and hold SELECT to talk. As new calls are received in the call waiting window, they are added to the call list, and old callers will be dropped. If you wish to create a permanent key assignment from a name in the call waiting window, use "*Copy Call Waiting*", below.

Copy Call Waiting

You can copy a name from the call waiting window to an intercom key to create a new talk key assignment. While the desired name is displayed, press and hold the SELECT control, then tap an intercom key.

• When you use this method, a talk-only key assignment will be created. If you want the key to also have a listen assignment, you should use the KEY ASGN menu. See "Menus, KEY ASGN, General Description" on page 29.

• If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key will ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

• All new key assignments that you create are automatically uploaded to the intercom system and saved to the on-line configuration.

Telephone Operation

NOTE: KP-12 and DKP-12 Only, Requires optional TIF Interface.

If the intercom system is equipped with an optional TIF telephone interface, one or more intercom keys on the KP-12 keypanel may be assigned for use as phone keys. There are three types of phone key assignments:

All-purpose phone key (usually identified as TEL1, TEL2, etc.): may be used for manual dialing, for last number redial, and for auto-dialing any of ten stored phone numbers.

Redial Key (RDL): redials the last number when activated.

Autodial Key (ADL0-ADL9): dials one of ten previously saved autodial numbers when activated.

The following paragraphs describe how to use each of these three types of phone keys.

All-Purpose Phone Key Operation

The following paragraphs assume that a phone key has already been set up and is ready for use. If a phone key has not been set up, see "Menus, KEY ASGN, PHONE (For KP-12, DKP-12 Only)" on page 35.

Names for general purpose phone keys are assigned, like any other intercom port name, using the intercom system configuration software. Suggested names are TEL1, TEL2, etc. to distinguish phone keys from other types of intercom keys.

Manual Dialing with an All-Purpose Phone Key

1. Tap the **phone key** to begin your call.
   This will place the keypanel in dial mode: the CALL indicator will turn on, and MAN DIAL (manual dial) will display in the call waiting window. You should also hear the dial tone. (Note, you may hang up the phone line at this time by simply tapping the phone key again.)
2. Tap the **SELECT** control to select MAN DIAL.
   The twelve intercom keys can now be used to dial a telephone number. Each key corresponds to the number printed next to it on the front panel. If the KP-12 has alphanumeric displays, the key numbers are displayed above each key.
3. Begin **dialing the number** by tapping the appropriate keys.
   After you dial the first digit, END DIAL will appear in the call waiting window. When you have completed dialing, tap the SELECT control to select END DIAL. This will return the KP-12 to normal operating mode. If the called party answers, proceed with you conversation as for any other intercom call. To end the phone call, hang up as described below.

Hanging Up

1. Turn the **SELECT** control to display HANG UP, then tap SELECT.
   The call waiting window will display TAP KEY.

2. Tap the **phone key**.
   The talk and listen indicators will turn off and the call will terminate.

Receiving a Phone Call

The phone key will flash red. Tap the key to answer the call. Hang up as previously described when finished.

Talk Mute During a Phone Conversation

During a phone conversation, tap the **phone key** once to turn on talk muting. Tap the **key** again to resume talking

Last Number Redial with an All-Purpose Phone Key

1. Tap the **phone key** to enter dial mode.

2. Turn the **SELECT** control to display REDIAL, then tap the **SELECT** control to redial.

3. Hang up as previously described when finished with the call.

Dialing an Autodial Number Using an All-Purpose Phone Key

NOTE: To use this feature, you must first have stored one or more auto dial numbers. See "Menus, Autodial (for KP-12/DKP-12 Only)" on page 28.

1. Tap the **phone key** to enter dial mode.

2. Turn the **SELECT** control to display AUTODIAL in the call waiting window, then tap **SELECT**.

3. Turn the **SELECT** control to select the desired autodial number (ADL0 through ADL9), then tap **SELECT** control to dial the number.

4. Hang up as previously described when finished with the call.

Dialing a Number Using a Redial or Autodial Key

NOTE: The following paragraph assumes that a redial or autodial key has already been set up and is ready for use. To set up a redial key, see "Menus, KEY ASGN, REDIAL (For KP-12, DKP-12 Only)" on page 36. To set up an autodial key, see "Menus, KEY ASGN, AUTODIAL (For KP-12, DKP-12 Only)" on page 29. A redial key will have the name RDL. Autodial keys will have names ADL0, AL1, and so forth.

To place a call on a redial or autodial key, simply tap the key. The number will automatically dial, talk and listen will activate. Hang up and mute are accomplished as previously described.

Using the Top-Level Menu

General Description

When the keypanel is turned ON, it resets to the top-level menu. At this level, the MENU indicator is OFF. To access the items in the top level menu, turn the SELECT control. The following items are displayed in the call waiting window as the **SELECT** control is turned:

ITEM	DESCRIPTION
- - - -	Clear call waiting. Default condition od display. May be used to clear keys.
Call list names	The last 4 destination names to appear in the call waiting window are retained for quick talk using the SELECT control.
DISPLAY	Displays information such as the keypanel's port number, setup page usage, listen assignments, etc.
KEY LIST	Accesses all four setup pages of key assignments for this keypanel.
LEVEL	Lets you adjust the range of VOLUME control or adjust the listen level for selected intercom keys.
LISTS	Accesses the intercom system scroll lists for key assignment.
MENUS	Provides access to less commonly used keypanel features.
PAGE (1-4)	Lets you assign a different page of key assignments
TGL LISN	Lets you activate/deactivate the listen assignment for a talk key without activating the talk assignment. (Push-button only)

Tap the **SELECT** control on any item in the top level menu to select that item.

The following paragraphs describe the use of the top-level menu items.

Top Level Menu, - - - - (Clear call waiting)

The call waiting window defaults to clear (**- - - -**) at power-up and when no action has been taken with the **SELECT** control for about 30 seconds. The clear indication may be used to clear an intercom key's assignment. To do this, press and hold the **SELECT** control, then tap the **intercom key** that you want to clear.

- Clear call waiting only clears key assignments. It does not clear key options. If you want to clear an option that has been assigned to a key, use "Menus, KEY OPT, CLR OPT" on page 38.
- If a key assignment will not clear, restrictions may have been imposed using the intercom system configuration software. In this case, talk to the intercom system administrator if you need to make changes.

Top Menu Level, Call List Names

As mentioned previously, a flashing CALL indication occurs when there is an incoming call from a destination and there is no key assigned to talk back to that destination. The destination name flashes in the call waiting window and is added to the call list. You can then press the **SELECT** control to talk back to that caller. Later, you can turn the **SELECT** control to locate the caller's name and then tap the **SELECT** control to call that destination and talk again. Names are also added to the call list as you select and use some of the other top level menu items described in the following paragraphs. For example, if you use the P-P menu item to select an intercom port, and then use the SELECT control to talk to that destination, the destination will be added to the call list. Whenever a new name is added to a full call list, the oldest name on the list is dropped. Thus, the call list can change over time.

Top Level Menu, Display

General Description

When you select **DISPLAY** in the top level menu, you can access several menu items that display current information about the keypanel using the key displays and the call waiting window.

Top Level Menu, Display, CHANS ON

Select **CHANS ON** to view a list of all destinations that are talking to your keypanel. The call waiting window may briefly display **WAIT** while the name are retrieved. The names can then be scrolled in the call waiting window by turning the **SELECT** control. If there are no active destinations, **N/A** will display. You can use this feature, for example, to locate an intercom station that has accidentally left a talk key activated that is causing unnecessary noise at your keypanel. While that station's name is displayed in the call waiting window, press and hold the **SELECT** control to talk back and request that they turn the key off.

• If you keypanel is assigned as the permanent member of a party line, CHANS ON will always display the names of all other member of the party line.

Top Level Menu, Display, Exclusive

An Exclusive key will cause all active keys to turn OFF when activated. The keys that are turned OFF when the exclusive key is activated will NOT turn back ON when the exclusive key is released.

1. Turn the SELECT knob to display, and then tap the knob.
2. Turn the SELECT knob to Exclusive, then tap the knob.
    The Exclusive key's Talk LED will light.

Top Level Menu, Display, Group (1-4)

GROUP displays all keys that are currently assigned to groups. The group master key will flash green, and the other keys in the group will be lit continuous green. The talk and listen indicators will light according to the way the keys have been programmed. For example, if the group master key normally activates both talk and listen, both indicators will flash green. If no keys are assigned to a group **NONE** will display.

1. Double-tap the SELECT control to return to the previous menu level. Or, press and hold the SELECT control for about two seconds to clear the call waiting window, if desired.

For assignment of keys to groups, see "Menus, KEY OPT, GROUP (1-4)" on page 38.

Top Level Menu, Display, KEY ICOM

When you select **KEY ICOM**, the intercom system names for all talk key assignments will appear in the display above the intercom keys. If there is only one intercom system, the word "**LOCL**" will display to indicate "local intercom".

The call waiting window will also display **TAP KEYS**. If the keypanel does not have alphnumeric displays for intercom key assignments, tap any key and the name of the intercom system to which that key is assign will appear in the call waiting window. (If the key is not assigned, the call waiting window will display dashes.)

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to clear the call waiting window, if desired.

Top Level Menu, Display, KEY TYPE

When you select **KEY TYPE**, the type of key assignment (see below) for each talk key is displayed in the alphanumeric display above that key. If there is no talk assignment, the display will show dashes (- - - -).

The call waiting window will also display **TAP KEYS**. If the keypanel does not have alphanumeric displays for intercom key assignments, tap any key and the key type for that key will appear in the call waiting window. (If the key is not assigned, the call waiting window will display dashes.)

Types of Key Assignments	
PL	Party Lines
IFB	IFBs
IFBSL	IFB Special List
ISO	Camera ISOs
P-P	Point-to-Point
RLY	Relays
SPCL	Special Lists
UPL	UPL Resource

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to clear the call waiting window, if desired.

Top Level Menu, Display, Level 2

NOTE: Talk Level 1 and 2 key assignments refer to 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.

When you select **LEVEL 2**, the talk level 2 key assignment for each key will appear in the alphanumeric display above the key. If there is no talk level 2 assignment, the display will show (**- - - -**).

The call waiting window will also display **TAP KEYS**. If the keypanel does not have alphanumeric displays for intercom key assignments, tap any key and the talk level 2 assignment for that key will appear in the call waiting window. (If the key is not assigned, the call waiting window will display dashes.)

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to clear the call waiting window, if desired.

Top Level Menu, Display, Listen

When you tap **LISTEN**, the listen key assignment for each key will appear in the alphanumeric display above the key. If there is no listen assignment, the display will show (**- - - -**).

The call waiting window will also display **TAP KEYS**. If the keypanel does not have alphanumeric displays for intercom key assignments, tap any key and the assignment will appear in the call waiting window. (If the key is not assigned, the call waiting window will display dashes.)

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for about two seconds to clear the call waiting window, if desired.

Top Level Menu, Display, Page Use

PAGE USE shows which setup page is assigned to the keypanel. For KP-12's it also shows which pages are assigned to any connected expansion panels. When you select **PAGE USE**, PG 1 will display in the left side of the call waiting window and the panel to which page 1 is assigned will appear in the right. Turn the **SELECT** control to view the page 1-4 assignments. KP-12 indicates a keypanel; EXP1, EXP2, etc. indicate expansion panels. For example, PG1 KP-12 means setup page 1 is assigned to the keypanel; PG EXP1 means setup page 2 is currently assigned to expansion panel #1. If a page is not assigned, the call waiting window will display NONE.

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two second to clear the call waiting window, if desired.

Top Level Menu, Display, Port Num

When you select **PORT NUM**, the port number to which the keypanel is connected will display in the call waiting window.

NOTE: You will get a false reading if the keypanel address has not been correctly set using *"Menus, SERVICE, SET ADDR" on page 46*.

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to clear the call waiting window.

Top Level Menu, Display, SOLO

A **SOLO** key is a talk key that, when activated, will cause all other active intercom keys to turn off. Turning the solo key off will cause the deactivated keys to turn back on. When you select SOLO in the DISPLAY menu, all keys that are currently assigned to operate as solo keys will light. The talk and listen indicators will light according to the way the keys have been programmed. For example, if a solo key normally activates as both talk and listen, both the talk and listen indicators will be green.

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to clear the call waiting window, if desired.

For description and assignment of solo keys, see "Menus, KEY OPT, SOLO" on page 39.

Top Level Menu, Display, Version

Select **VERSIONS** to display the keypanel's software version in the call waiting window.

NOTE: The KP-12 version can easily be updated from AZedit. See firmware download in AZedit help or User Manual.

Top Level Menu, Key List

When you select **Key List**, the list of all currently assigned keys on all 4 setup pages will be scrollable in the call waiting window. Turn the **SELECT** control to locate a key assignment.

To talk to the selected key assignment, press and hold the **SELECT** control. This will also add the name to the call list for future use.

To assign the selected key assignment to an intercom key on the active setup page, press and hold the SELECT control, then tap an intercom key.

- If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.
- New key assignments created from the key list are automatically uploaded to the intercom system and saved to the on-line configuration.
- When you make a key assignment from the key list, both the talk and listen assignments will be copied to the new key.

To return to the top level menu, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

Top Level Menu, Level

LEVEL displays crosspoint listen levels for point-to-point or party line key assignments. When you select LEVEL the call waiting window will display "TAP KEY". Tap any key that has a point-to-point or party line listen assignments. The current listen level setting will display in the call waiting window. If the key is not a point-to-point or party line key, or if there is not a listen assignment, the call waiting window will display **N/A** when you tap the key.

Double-tap the **SELECT** control and tap another key to read its level. Or, press and hold the **SELECT** control for two seconds to exit.

Top Level Menu, Lists

Top Level Menu, Lists, ICOM

ICOM displays only if your intercom system is connected to other intercom systems. When you select ICOM, a list of intercom systems appear in the call waiting window. Turn the **SELECT** control to display the desired intercom system, then tap the **SELECT** control. The call waiting window will display WAIT while the scroll lists are retrieved from that intercom system. Once the lists have been retrieved, you may use them just like the scroll lists for the local intercom system. See the descriptions for IFB, ICO, etc., that follow.

NOTE: ICOM will only appear in the menu list when the keypanel is attached to a trunked system.

Top Level Menu, Lists, PL (party lines)

When you select **PL**, the list of party lines is displayed in the call waiting window. Turn the **SELECT** control to locate the desired party line.

To talk to the selected party line, press and hold the **SELECT** control.

To assign the party line to an intercom key for future use, press and hold the **SELECT** control, then tap an **intercom key**.

•If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

•Party line key assignment changes are automatically uploaded to the intercom system and saved to the on-line configuration.

•When you assign a party line key using this method, only the talk assignment is affected and not the listen assignment. If you want to change or add a listen assignment you will have to access menu mode and use the "Menus, KEY ASGN, General Description" on page 29.

To return to the top-level menu from the party line list, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

Top Level Menu, Lists, P-P (Point-to-Point)

When you select **P-P**, the list of ports is displayed in the call waiting window. Turn the **SELECT** control to locate the desired port.

To talk to the selected port, press and hold the **SELECT** control.

To assign the port to an intercom key for future use, press and hold the **SELECT** control, then tap an **intercom key**.

•If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

•P-P key assignment changes are automatically uploaded to the intercom system and saved to the on-line configuration.

•When you assign a Point-to-Point key using this method, only the talk assignment is affected and not the listen assignment. If you want to change or add a listen assignment you will have to access menu mode and use the "Menus, KEY ASGN, General Description" on page 29.

To return to the top-level menu from the P-P list, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

Top Level Menu, Lists, IFB

When you select **IFB**, the IFB list will appear in the call waiting window. Turn the **SELECT** control to locate the desired IFB name.

To talk to the selected IFB, press and hold the **SELECT** control.
This will also add the IFB name to the call list for future use.

To assign the IFB to an intercom key for future use, press and hold the **SELECT** control, then tap an **intercom key**.

• If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

• IFB key assignments are automatically uploaded to the intercom system and saved to the on-line configuration.

• When you assign an IFB key using this method, only the talk assignment is affected and not the listen assignment. If you want to change or add a listen assignment you will have to access menu mode and use the "Menus, KEY ASGN, General Description" on page 29.

Top Level Menu, Lists, IFSL

When you select **IFSL**, the IFSL list will appear in the call waiting window. Turn the **SELECT** control to locate the desired IFSL name.

1. To talk to the selected IFSL, press and hold the **SELECT** control.
   This will also add the IFSL name to the call list for future use.

To assign the IFSL to an intercom key for future use, press and hold the **SELECT** control, then tap an **intercom key**.

- If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

- IFSL key assignments are automatically uploaded to the intercom system and saved to the on-line configuration.

- When you assign an IFSL key using this method, only the talk assignment is affected and not the listen assignment. If you want to change or add a listen assignment you will have to access menu mode and use the "Menus, KEY ASGN, General Description" on page 29.

Top Level Menu, Lists, ISO

When you select **ISO**, the ISO list will appear in the call waiting window. Turn the **SELECT** control to locate the desired ISO name.

1. To talk to the selected ISO, press and hold the **SELECT** control. This will also add the ISO name to the call list for future use.

To assign the ISO to an intercom key for future use, press and hold the **SELECT** control, then tap an i**ntercom key**.

- If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

- ISO key assignments are automatically uploaded to the intercom system and saved to the on-line configuration.

- When you assign an ISO key using this method, only the talk assignment is affected and not the listen assignment. If you want to change or add a listen assignment you will have to access menu mode and use the "Menus, KEY ASGN, General Description" on page 29.

To return to the top-level menu, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

Top Level Menu, Lists, RLY (Relays)

RLY can be used to activate relays in an FR9528 or UIO-256 Frame. It may also be used to activate the GPI outputs on the back of an ADAM CS frame (J903) or on an XCP-ADAM-MC Master Controller Breakout Panel in an ADAM intercom system (J11).

1. When you select **RLY**, the relay scroll list will appear in the call waiting window.
2. Turn the **Select** control to display the desired relay, then press and hold **SELECT** to keep the relay activated.
3. To assign the relay to a key for future use, press and hold the **SELECT** control, then tap an **intercom key**.

- If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

- Relay key assignments are automatically uploaded to the intercom system and saved to the on-line configuration.

- Changing a key's assignment has no effect on any key options that may already be assigned to that key using the "General Description" on page 37.

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Top Level Menu, Lists, SPCL (Special Lists)

When you select **SPCL**, a list of special lists will appear in the call waiting window. Turn the **SELECT** control to locate the desired special list.

1. To talk to the selected special list, press and hold the **SELECT** control.

2. To assign the special list to an intercom key for future use, press and hold the **SELECT** control, then tap an intercom key.

• If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

• **SPCL** key assignments are automatically uploaded to the intercom system and saved to the on-line configuration.

• When you assign a SPCL key using this method, only the talk assignment is affected and not the listen assignment. If you want to change or add a listen assignment you will have to access menu mode and use the "Menus, KEY ASGN, General Description" on page 29.

To return to the top-level menu, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

Top Level Menu, Lists, UPL

When you select **UPL**, a list of UPL Resoures (URs) will appear in the call waiting window. Turn the **SELECT** control to locate the desired UR.

1. To talk to the selected UPL, press and hold the **SELECT** control.

2. To assign the UPL to an intercom key for future use, press and hold the **SELECT** control, then tap an intercom key.

• If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

• **UPL** key assignments are automatically uploaded to the intercom system and saved to the on-line configuration.

• When you assign a UPL key using this method, only the talk assignment is affected and not the listen assignment. If you want to change or add a listen assignment you will have to access menu mode and use the "Menus, KEY ASGN, General Description" on page 29.

To return to the top-level menu, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

Top Level Menu, Menus

Menus provide complete access to advanced setup and key assignment features. This menu is discussed separately in "Menu Mode" on page 27.

Top Level Menu, Page (1-4)

Each keypanel has four setup pages of key assignments. One setup page is used for the keypanel, and one is used for each expansion panel (KP-12 only). Or, if no expansion panels are connected, setup pages may be switched on the keypanel to provide a completely different set of key assignments for different conditions.

To change setup pages, turn the **SELECT** control to select the desired setup page. Then tap the **SELECT** control. Next tap **any key** on the keypanel or the **expansion panel** (KP-12 only) where you want to assign the new setup page. The new key assignments should appear on that panel.

To return to the top-level menu, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

NOTE: If you have assigned any options to keys using the **KEY OPT** menu, note these options may not change along with the setup page, depending on which version of firmware is installed in the KP-12. In keypanel version prior to version 24, key

options did not stay with keys as setup pages were change. This meant that if you changed setup pages, the key assignments on the new active setup page would take on the key options from the previously used setup page. Starting with version 24, this has been changed so that key options now track not only the keys to which they are assigned, but also the setup page. For version information, see "Top Level Menu, Display, Version" on page 20

Top Level Menu, TGL LISN (Toggle Listen ON/OFF)

NOTE: TGL LISN is only available to the Push Button key panel.

If a talk key also has a listen assignment, you may occasionally wish to turn on the listen assignment independently of the talk assignment. You can use **TGL LISN** to do this. When you tap **TGL LISN**, the call waiting window will display TAP KEYS, and the current listen status (ON or OFF) will be indicated for each key that has a listen assignment. Tap the **key** that you want to turn ON or OFF.

- If a key does not have a listen assignment, **TGL LISN** will be ignored.
- You must run **TGL LISN** again to turn off a listen key after you have used TGL LISN to turn it on.

To return to the top-level menu, double-tap the **SELECT** control. If no action is taken for 30 seconds, the call waiting window will clear.

Menu Mode

Select Control Operation in Menu Mode

- The keypanel normally operates at the top-level menu. At this level, the MENU indicator is OFF. To enter menu mode, turn the **SELECT** control to display MENUS, then tap the **SELECT** control. The MENU indicator will turn ON.

NOTE: If your keypanel displays (MENUS) instead of MENUS, this indicates that menu mode has been locked, and you must enter the 4-digit passcode that was saved previously to gain access.

- The menus in menu mode are displayed in Table 1 on page 28. Turn the **SELECT** control to display the desired menu in the call waiting window, the tap **SELECT** to choose that menu.
- To select an item in a menu, turn the **SELECT** control to display that item, then tap **SELECT**.
- To exit a selection and return to the previous menu level, double-tap the **SELECT** control.
- To exit menu mode immediately (from most locations) press and hold the **SELECT** control for two seconds. If no action is taken in menu mode for 30 seconds, the keypanel will automatically return to the top-level menu and the MENU indicator will turn OFF.
- The following pages describe the use of the menus in menu mode:

Table1. Keypanel Menus in Menu Mode

AUTODIAL page 28	KEY ASGN page 29	KEY OPT page 37	SERVICE page 40
	AUTODIAL	BTN LOCK	DIMMER
	AUTOFUNC	CHIME	FOOT SW
	CLEAR	CLR OPT	KEY TYPE
	COPY	COPY	LOCK
	LISTS	GROUP 1	MIC CTRL
	ICOM[a]	GROUP 2	MIC COMP
	PL	GROUP 3	MIC GAIN
	IFB	GROUP 4	MOD ASGN
	IFSL	LATCHING	MUTE LVL
	ISO	SOLO	OPTO ISO[b]
	P-P		OUT CTRL
	RLY		RESET
	SPCL		SAVE CFG
	UPL		SET ADDR
	PHONE		SIDETONE
	REDIAL		TALLY
			TEST PNL
			TONE
			USM

a. ICOM is only available for trunked intercom systems.

b. LOCAL I/O and OPTO-ISO are available only with the optional GPI module installed (KP-12 only).

Menus, Autodial (for KP-12/DKP-12 Only)

NOTE: This menu is used to store autodial numbers. To assign a key that dials a specific autodial number, see page 29. To use stored autodial numbers with an all-purpose phone key see page 16.

Store autodial numbers as follows:

1. All phone keys (including autodial or redial keys) must be **OFF**.

2. When you select **AUTODIAL**, the call waiting window will display DIAL NUM.

3. If your phone system requires you to enter a digit to request an outside line, enter that **digit** first. Some phone systems may also require a brief pause after the request for an outside line. If this is the case, enter ***99** after the first digit to create a pause.

4. Finish dialing the telephone number.

5. When finished dialing, tap the **SELECT** control.
    The call waiting window will then display TAP 0-9.

6. Tap a **single key** (0 through 9) to assign the telephone number to autodial number 0 through 9.

7. After an autodial number has been assigned, the call waiting window will again display **DIAL NUM**.

8. Repeat **steps 3 through 6** to store additional autodial numbers.

9. Press and hold the **SELECT** control for two seconds to return to the top-level menu when you are finished entering autodial numbers.

10. Use the "Menus, SERVICE, SAVE CFG" on page 46, to store your changes. Otherwise, the autodial numbers will be lost when the KP-12 is turned off.

Menus, KEY ASGN

Menus, KEY ASGN, General Description

The **KEY ASGN** Menu provides greater flexibility than the top-level menu when assigning keys. Also, this menu offers some additional types of key assignments not found on the top-level menu, including phone keys.

Menus, KEY ASGN, AUTODIAL (For KP-12, DKP-12 Only)

Use this menu item to assign a key to automatically dial a previously stored telephone number. A TIF Telephone Interface must be connected to the intercom system to use this feature.

NOTE: To store phone number for use by autodial keys, see "Menus, Autodial (for KP-12/DKP-12 Only)" on page 28.

1. When you select **AUTODIAL**, the point-to-point scroll list will display for the currently selected intercom system.[1]

2. Turn the **SELECT** control to locate one f the two intercom ports to which the TIF is connected, then tap **SELECT**. *The call waiting window will display TAP KEY.*

3. Tap the **intercom key** that you want to use as an autodial key. *ADL0 will display in the call waiting window.*

4. Turn the **SELECT** control to select the desired autodial number (ADL0 through ADL9), then tap **SELECT**. *The name ADL1, ADL2, etc. will appear in the display above the new autodial key.*

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

Unlike some other types of key assignments, which let you select the activation method, autodial keys are always assigned as talk keys with auto-listen. When you activate the key both talk and listen will be activated.

NOTE: You must save an autodial key configuration using the SAVE CFG command. "Menus, SERVICE, SAVE CFG" on page 46. If you do not save the configuration, the autodial function will be lost when the keypanel is turned OFF.

Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, AUTOFUNC

When you click on AUTOFUNC, the auto functions scroll list will appear in the call waiting window, see Table 2 on page 30, for descriptions.

1. Turn the **SELECT** control to display the desired auto function, then tap **SELECT**. *The call waiting window will display TAP KEY.*

2. Tap an **intercom key** to assign the auto function.

• If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

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1. *If the intercom system is interconnected with other intercom systems, and the TIF is located in another intercom system, turn the SELECT control to display ICOM followed by the desired intercom system name, then tap SELECT. Wait for the point-to-point list to be obtained from the selected intercom system.*

- Auto-function key assignment changes are automatically uploaded to the intercom system and saved to the online configuration.

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit the menu mode.

Menus, KEY ASGN, CLEAR

CLEAR lets you erase a key's talk and/or listen assignment. It has no effect on any key options that may also have been assigned to the key using the KEY OPT menu. You must clear those using "Menus, KEY OPT, CLR OPT" on page 38.

1. Tap **CLEAR**.

2. Turn the **SELECT** control to display either TALK or LISTEN, then tap the **SELECT** control again.
   The call waiting window will display TAP KEY.

3. Tap the **key(s)** you want to clear.

If restrictions against key assignment have been imposed using the intercom system configuration software, the intercom key may ignore the CLEAR command. In this case, contact the intercom system administrator if you need to clear a key.

Clear key assignment changes are automatically uploaded to the intercom system and saved to the on-line configuration.

4. Double-tap the **SELECT** control to return to TALK/LISTEN select.
   If you selected and cleared TALK assignments before, you can now select LISTEN and proceed to clear LISTEN assignments. Or, press and hold the SELECT control for two seconds to exit menu mode.

TABLE 2. Auto Function Descriptions

Auto AC	**All-Call** (for talk assignments only): Activating an all-call key will cause all keys to the left of the all-call key to activate (up to, but not including another all-call key).
Auto AF	**Auto-Follow** (for listen assignments only): The listen assignment is automatically set to the same destination as the current talk assignment, and it changes whenever the talk assignment is changed. Listen does not turn ON with talk, but it can be activated using "Top Level Menu, TGL LISN (Toggle Listen ON/OFF)" on page 25.
Auto AL	**Auto-Listen** (for listen assignments only): The listen assignment is automatically set to the same destination as the current talk assignment, and it changes whenever the talk assignment is changed. Listen automatically activates when talk is activated. Listen may also be manually activated using "Top Level Menu, TGL LISN (Toggle Listen ON/OFF)" on page 25.
Auto AM	**Auto-Mute** (for listen assignments only): The listen assignment is automatically set to the same destination as the current talk assignment, and it changes whenever the talk assignment is changed. Listen may be manually activated using TGL LISN, page X. If listen is ON, it will automatically mute when the talk is turned ON. Auto-mute is useful when you must activate the listen key to hear a destination, but you hear an echo or feedback when talking to that destination. When a key is set for auto-mute, turn the listen on using TGL LISN, then use the talk key in momentary mode to talk. When finished talking, release the talk key to listen.
Auto AR	**Auto-Reciprocal** (for listen assignments only): The listen assignment is automatically set to the same destination as the current talk assignment. Listen is always ON and cannot be turned OFF.

Menus, KEY ASGN, COPY

Use **COPY** to copy one key's talk or listen assignment to another key's talk or listen assignment as follows:

1. Select **COPY**.
   The call waiting window will display TAP ORIG.

2. Tap the **origin key** (the key you want to copy).
   The call waiting window will display LISTEN.

3. To copy the LISTEN assignment, tap the **SELECT** control.
   Or,

To copy the TALK assignment, turn the **SELECT** control to display TALK, then tap **SELECT**.
TAP DEST will appear in the call waiting window.

4. Tap the **destination key** (the key you want to copy to).
The call waiting window will display LISTEN.

5. To assign the new key as LISTEN, tap **SELECT**.
OR
To assign the new key as TALK, turn the **SELECT** control to select TALK and then tap **SELECT**.

If you select LISTEN, the new assignment will appear briefly in the display above the key and the left LED in the key will flash. After a few seconds, the LED will stop flashing and the key's current TALK assignment will reappear in the display.

If you select TALK, the new assignment will appear in the display above the key and the left LED in the key will flash for a few seconds.

6. To copy another key assignment, double-tap the **SELECT** control.
The call waiting window will again display TAP ORIG.

7. Repeat from **step 1**.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the copied assignment. In this case, contact the intercom system administrator if you need to make a change.

Copied key assignment changes are automatically uploaded to the intercom system and saved to the on-line configuration.

Copying a key's assignment has no effect on any key options that may be assigned to either key using the KEY OPT menu. To copy options from a key, see "Menus, KEY OPT, COPY" on page 38.

8. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS

General Description
This menu gives you complete control when setting up key assignments. You can assign keys for any of the types of operations listed in Table 3 .

TABLE 3. Key Assignment Options[a]

Name	Description
LISTEN	Assign listen only.
TALK	Assign talk only.
TALK-AF	Assign talk level 1 with auto-follow.
TALK-AL	Assign talk level 1 with auto-listen.
TALK-AM	Assign talk level 1 with auto-mute.
TALK-AR	Assign talk level 1 with auto-reciprocal listen.
TALK-2	Assign talk level 2.

a. See Table 2 on page 30, for a detailed description of the auto functions.

Menus, KEY ASGN, LISTS

General Description
This menu gives you complete control when setting up key assignments. You can assign keys for any of the types of operations listed in Table 3 on page 31.

Menus, KEY ASGN, LISTS, ICOM
ICOM is only selectable for trunked systems. You use it to log onto an intercom system and get its scroll lists.

1. When you select ICOM, a list of the available intercom systems will appear in the call waiting window.
2. Tap on an **intercom system** to select it.
   If you select the local intercom system, the local scroll lists will immediately display in the call waiting window. If a remote intercom system is selected, WAIT will display while the keypanel retrieves the scroll lists from that intercom system. Once the new set of scroll lists are available, you can use them to make key assignments as described in the following paragraphs.

Menus, KEY ASGN, LISTS, PL (Party Line)
1. When you select **PL**, the party line scroll list will appear in the call waiting window. Turn the **SELECT** control to display the desired party line, then tap **SELECT**.
2. Turn the **SELECT** control to select one of the available key assignment options (Table 3, "Key Assignment Options," on page 31.
3. Tap **Select**.
   The call waiting window will display TAP KEY.
4. Tap an **intercom key** to assign the party line.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

PL key assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

5. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS, IFB
1. When you select **IFB**, the IFB scroll list will appear in the call waiting window.
2. Turn the **SELECT** control to display the desired IFB, then tap **SELECT**.
3. Turn the **SELECT** control to select one of the available key assignment options (Table 3, "Key Assignment Options," on page 31.
4. Tap **SELECT**.
   The call waiting window will display TAP KEY.
5. Tap an **intercom key** to assign the IFB.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

Key assignment changes are automatically uploaded to the intercom system and saved to the on-line configuration.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

6. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS, IFSL

1. When you select **IFSL**, the IFSL scroll list will appear in the call waiting window.
2. Turn the **SELECT** control to display the desired IFSL, then tap **SELECT**.
3. Turn the **SELECT** control to select one of the available key assignment options (Table 3, "Key Assignment Options," on page 31.
4. Tap **SELECT**.
   The call waiting window will display TAP KEY.
5. Tap an **intercom key** to assign the IFSL.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

Key assignment changes are automatically uploaded to the intercom system and saved to the on-line configuration.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

6. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS, ISO

1. When you select **ISO**, the ISO scroll list will appear in the call waiting window.
2. Turn the **SELECT** control to display the desired ISO, then tap **SELECT**.
3. Turn the **SELECT** control to select one of the available key assignment options (Table 3, "Key Assignment Options," on page 31.
4. Tap **SELECT**.
   The call waiting window will display TAP KEY.
5. Tap an **intercom key** to assign the ISO.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

Key assignment changes are automatically uploaded to the intercom system and saved to the on-line configuration.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

6. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS, P-P (Point-to-Point)

1. When you select **P-P**, the point-to-point scroll list will appear in the call waiting window.
2. Turn the **SELECT** control to display the desired party line, then tap **SELECT**.
3. Turn the **SELECT** control to select one of the available key assignment options (Table 3, "Key Assignment Options," on page 31.

4. Tap **SELECT**.
The call waiting window will display TAP KEY.

5. Tap an **intercom key** to assign the party line.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

P-P key assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

6. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS, RLY (Relays)

RLY can be used to assign relays in an FR9528 or UIO-256 Frame. It may also be used to assign the GPI outputs on the back of an ADAM CS frame (J903) or on an XCP-ADAM-MC Master Controller Breakout Panel in an ADAM intercom system (J11).

1. When you select **RLY**, the relay scroll list will appear in the call waiting window.

2. Turn the **SELECT** control to display the desired relay, then tap **SELECT**.

3. Turn the **SELECT** control to select one of the available key assignment options (talk level one, talk level two, or listen) then, tap SELECT.
The call waiting window will display TAP KEY.

4. Tap an **intercom key** to assign the relay.

If restrictions against key assignment key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

Relay key assignments are automatically uploaded to the intercom system and saved to the online configuration.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using"General Description" on page 37.

5. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS, SPCL (Special Lists)

1. When you select **SPCL**, the special list scroll list will appear in the call waiting window.

2. Turn the **SELECT** control to display the desired relay, then tap **SELECT**.

3. Turn the **SELECT** control to select one of the available key assignment options (talk level one, talk level two, or listen) then, tap SELECT.
The call waiting window will display TAP KEY.

4. Tap an **intercom key** to assign the special list.

If restrictions against key assignment key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

SPCL key assignments are automatically uploaded to the intercom system and saved to the online configuration.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

5. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LISTS, UPL

1. When you select **SPCL**, the special list scroll list will appear in the call waiting window.

2. Turn the **SELECT** control to display the desired relay, then tap **SELECT**.

3. Turn the **SELECT** control to select one of the available key assignment options (talk level one, talk level two, or listen) then, tap SELECT.
   The call waiting window will display TAP KEY.

4. Tap an **intercom key** to assign the special list.

If restrictions against key assignment key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the key assignment. In this case, contact the intercom system administrator if you need to make a change.

UPL key assignments are automatically uploaded to the intercom system and saved to the online configuration.

Changing a key's assignment has no effect on any key options that may already be assigned to that key using "General Description" on page 37.

5. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, KEY ASGN, LOCAL I/O (For KP-12 Only)

A **General Purpose Interface (GPI)** module must be installed in the KP-12 to access this menu. (See Table 3, "KP-12 Key-panel Reference View (Push-button version shown).," on page 7.) Use this menu to assign the outputs of the GPI Module for activation along with regular key assignments.

1. When you select **LOCAL I/O**, LRY1 (local relay 1) appears in the call waiting window.
   For other selections, turn the SELECT control to display LRY2, OC1 (open collector output 1) or OC2.

2. Display the desired selection, then tap the **SELECT** control.

3. Select **ASSIGN** or **CLEAR**, then tap the **SELECT** control.

4. Tap an **intercom key** to perform the operation.

Each local relay or open collector output can only be assigned to one key at a time.

A relay or open collector output will only activate if the key it is assigned to also has a regular key assignment.

5. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

6. You must save Local I/O assignments using the **SAVE CFG** command. See "Menus, SERVICE, SAVE CFG" on page 46.. Otherwise, any Local I/O will be lost when the keypanel is turned OFF.

An intercom key must already have one of the following key assignments in order for a Local I/O assignment to function: IFB, ISO, PL, P-P, or SPCL.

Menus, KEY ASGN, PHONE (For KP-12, DKP-12 Only)

You use this menu item to assign a general purpose phone key that can be used for manual dialing, auto-dialing or redialing. A TIF Telephone Interface must be connected to the intercom system to use this feature[2].

1. When you select **PHONE**, the point-to-point scroll list will display for the currently selected intercom system.
2. Turn the **SELECT** control to locate one of the two intercom ports to which the TIF is connected, then tap **SELECT**.
   The call waiting window will display TAP KEY.
3. Tap the **intercom key** you want to use as a phone key.
   The name of the intercom port you select will appear in the display above the key.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

Unlike most other types of key assignments which let you select the activation method (talk, listen, talk+auto follow, etc.), phone keys are always assigned as talk keys with auto-listen. When you activate the key both talk and listen will be activated.

4. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit the menu mode.

For a phone key, the port assignments are automatically uploaded to the intercom system and saved to the on-line configuration. However, the phone function itself must be saved locally using the SAVE CFG command. See "Menus, SERVICE, SAVE CFG" on page 46.. Otherwise, the phone function will be lost when the keypanel is turned OFF.

Menus, KEY ASGN, REDIAL (For KP-12, DKP-12 Only)

You use this menu item to assign a redial key for use along with one or more phone keys. If the KP-12 has multiple phone keys assigned, the redial key redials the last number dialed on the last phone key that was used.

1. When you select **REDIAL**, the point-to-point scroll list will display for the currently selected intercom system.
2. Turn the **SELECT** control to locate one of the intercom ports which the TIF is connected, then tap **SELECT**.
   The call waiting window will display TAP KEY.
3. Tap the **intercom key** that you want to use as a redial key.
   The name RDL will appear in the display above the key.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

Unlike most other types of key assignments, which let you select the activation method (talk, listen, talk +auto follow, etc.) redial keys are always assigned as talk keys with auto-listen. When you activate the key both talk and listen will be activated.

4. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.
5. For a redial key, the port assignment is automatically uploaded to the intercom system and saved to the online configuration. However, the redial function itself must be saved locally using the SAVE CFG command. See "Menus, SERVICE, SAVE CFG" on page 46.. Otherwise, the redial function will be lost when the keypanel is turned OFF.

Menus, KEY ASGN, UPL

You use this menu item to assign a UPL to a key for use along with one or more keypanel keys.

1. When you select **UPL**, the UR scroll list will display.
2. Turn the **SELECT** control to scroll through the URs, then tap **SELECT** for the desired resource.
   The call waiting window will display key functions.
3. Turn the **SELECT** control to scroll through the key functions, then tap **SELECT** for the function.
   The call waiting window will display Tap Key.

---

2. *If the intercom system is trunked, and the TIF is located in another intercom system. turn the SELECT control to display ICOM, followed by the desired intercom system name, then tap SELECT. Wait for the point-to-point list to be obtained from the selected intercom system.*

4. Tap the **intercom key** that you want to assign the UPL.
The name UPL will appear in the display above the key.

If restrictions against key assignments have been imposed using the intercom system configuration software, the intercom key may ignore the assignment. In this case, contact the intercom system administrator if you need to make a change.

5. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, Key Opt Menu

General Description

Use the **KEY OPT** menu to modify the operation of selected keys. Changes you make in this menu do not affect talk and listen assignments, only the way that keys operate. Any changes you make in this menu must be saved internally in the keypanel if you want them to be retained for future use. Otherwise, the settings will be lost when the keypanel is turned OFF. (See "Menus, SERVICE, SAVE CFG" on page 46..)

NOTE: In keypanel versions prior to version 24, key options did not stay with keys as setup pages were changed. This meant if you changed setup pages, the key assignments on the new active setup page would take on the key options from the previously used setup page. This has been changed so that key options now track not only the keys to which they are assigned, but also the setup page. (For version information, see "Top Level Menu, Display, Version" on page 20.)

Menus, KEY OPT, BTN LOCK (Button Lock)

Each key may be independently locked ON or OFF. The default setting for all keys is no locking.

1. When you select **BTN LOCK** from the KEY OPT menu, the call waiting window will display TAP KEYS.

2. Select the **keys** you desire to lock ON, lock OFF, or no lock.
The talk indicator for each intercom key provides the following indications.

Solid Green:	Locked ON
Flashing Green:	Locked OFF
No Indication	Not Locked

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

NOTE: You cannot assign button lock to any key that is programmed for solo operation or group operation. If you attempt to assign button lock to these keys, the call waiting window will display SOLO ERR (solo error), or GRP ERR (group error).

Menus, KEY OPT, CHIME

You can assign **CHIME** tone to selected listen keys for incoming call announcement.

NOTE: Chime tones work in conjunction with the sidetone feature. By default, the sidetone level is set to MUTE, and chime tones will not be heard. To use the chime feature, first increase the sidetone level as described on page 47.

1. When you select **CHIME** from the KEY OPT menu, the call waiting window will display CHIME1.

2. Turn the **SELECT** control to display CHIME2 or CHIME3 if desired, then tap **SELECT**.
   You will hear an audible sample of the chime tone. The call waiting window will also display TAP KEYS.

3. Tap **any keys** you want to assign the chime tone to for incoming calls.

4. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, KEY OPT, CLR OPT

1. When you select **CLR OPT** from the KEY OPT menu, the call waiting window will display TAP KEY.

2. Tap the **key (or keys)** that you want to clear.
   OK will appear in the alphanumeric display for 4 seconds, and all options assigned to that key will be removed.

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save your changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46.

Menus, KEY OPT, COPY

COPY lets you copy one key's option assignments to another key.

1. When you select **COPY**, the call waiting window will display TAP ORIG.

2. Tap the **original key** from which you want to copy.
   After you tap a key, the call waiting window will display TAP DEST.

3. Tap the **destination key** to which you want to copy.
   The display above the destination key will briefly display OK to verify the assignment.

4. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46.

Menus, KEY OPT, EXCLUSIVE

EXCLUSIVE lets you assign the EXLUSIVE key assignment to keys.

1. When you select **EXLUSIVE**, the call waiting window will display TAP KEY.

2. Tap the **Key or Keys** you want to set to exclusive.

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46.

Menus, KEY OPT, GROUP (1-4)

This feature lets you add a group master function to an intercom key and then select keys to be activated whenever that group master key is activated. The underlying key assignment for each key in the group can then be activated by the group master key.

Create a group as follows:

1. In the KEY OPT menu, turn the **SELECT** control to select GROUP 1, 2, 3, or 4.

2. Tap the **SELECT** control.
   The call waiting window displays TAP MAST.

3. Tap the **intercom key** that will be the group master key.
The talk and listen indicators for the selected key will flash green, depending on whether talk, listen, or both are currently setup on the key. This confirms the group master assignment.

NOTE: You cannot assign group operation to any key that is programmed for solo operation (described below) or that is locked ON or OFF using button lock. See "Menus, KEY OPT, BTN LOCK (Button Lock)" on page 37. If you attempt to assign group operation to these keys, the call waiting window will display either SOLO ERR (solo error), or LOCK ERR (lock error). If an error occurs, group assignment will terminate and you will have to start again after the problem is corrected.

4. Next, the call waiting window will display TAP KEYS. Tap other **intercom keys** as desired to assign them or remove them from the group.
The talk and/or listen indicators will turn green for those keys that are assigned to the group. (Indicators will light according to the way the keys have been assigned. For example, if a key has been assigned for talk only, the talk indicator will be green and the listen will be off.)

5. When finished assigning keys, double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

6. Save the group to retain it for future use. (See "Menus, SERVICE, SAVE CFG" on page 46..)

Menus, KEY OPT, LATCHING

The default setting for intercom keys permits them to be latched ON for hands-free talk. This feature may be deactivated for selected keys.

1. When you select **LATCHING** from the KEY OPT menu, the call waiting window will display TAP KEYS.

2. Tap **keys** as desired to enable or disable latching.
The talk indicators will turn green for all keys that have latching enabled and will be off for keys that do not have latching enabled.

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

NOTE: You can assign latching operation to keys that are locked ON or OFF using the button lock feature (See "Menus, KEY OPT, BTN LOCK (Button Lock)" on page 37.). If you attempt to do this, the call waiting window will display LOCK ERR (lock error).

Menus, KEY OPT, SOLO

A **SOLO** key is a talk key that, when activated, will cause all other active intercom keys to turn OFF. Turning the solo key off will cause the deactivated keys to turn back ON. You can only assign solo operations to a key that already has a talk assignment. Otherwise, the assignment will be ignored.

1. When you select **SOL**O form the KEY OPT menu, the call waiting window will display TAP KEYS.

2. Tap **keys** as destroyed to enable or disable solo operation.
For solo keys, the talk and/or listen indicators will turn green (depending on the way talk and listen have been assigned). The talk and listen indicators will be off for keys that are not solo keys.

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for about two seconds to exit menu mode.

Remember to save your changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46.

NOTE: You cannot assign a solo operation to keys that are assigned to groups using the group feature ("Menus, KEY OPT, GROUP (1-4)" on page 38). If you attempt to do this, the call waiting window will display GR ERR (group error). Also, you cannot assign solo operation to keys that are locked ON or OFF using the button lock feature ("Menus, KEY OPT, BTN LOCK (Button Lock)" on page 37). If you attempt to do this, the call waiting window will display LOCK ERR (lock error).

Menus, SERVICE MENU

General Description

Use this menu to set the logical keypanel address during installation and to set general operating features such as display brightness, etc. Any changes you make in this menu must be saved locally if you want them to be retained for future use. Otherwise, the settings will be lost when the keypanel is turned OFF. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, DIMMER

DIMMER set the brightness for the front panel displays.

1. After selecting **DIMMER**, turn the SELECT control to set the brightness.
    You can preview the new brightness level in the call waiting window.
2. When the brightness is set to the desired level, tap the **SELECT** control to activate the change for all the displays.
3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, FOOT SW (with GPI module ONLY)

NOTE: The foot switch must be connect at J6 (Opto-4 & Opto-3) on the back of the KP-12. It also must be cabled across pins 5 & 9 of the Opto-4 & 3 DB-9 connector.

When the Foot switch is enabled, activated talk keys enter standby mode and the talk LED turns orange. Once you press the foot switch, the crosspoint is closed and the Talk LED turns green for normal operation.

1. To change the key type, select **FOOT SW**.
2. Then, turn the **SELECT** control to choose either ON or OFF, and tap **SELECT** control.
3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit the menu mode.

Remember to save your changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, KEY TYPE

The keypanel comes with either push-button or lever-style intercom keys. The correct type is factory-set and should not require change. (The correct setting is maintained even if the keypanel is reset.)

1. To change the key type, select **KEY TYPE**.
2. Then, turn the **SELECT** control to choose either SINGLE (push-button keys) or LEVEL, and tap **SELECT**.
3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit the menu mode.

Remember to save your changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, LOCK/UNLOCK

Use this item to lock or unlock menu mode. When menu mode is locked, all items in Table 1 on page 28 are locked out and can only be accessed by entering a 4-digit passcode.

Lock the menu as follows:

1. Select **MENUS, SERVICE, LOCK**.
   The call waiting window will display TAP CODE.

2. Enter a **4-digit passcode** by tapping intercom keys.
   When the last digit is entered, all displays will briefly display asterisks while the passcode is being stored, then the keypanel will reset to the top level menu. You do NOT need to run SAVE CFG to store this change.

Unlock the menu as follows:

1. Select **MENUS**.
   TAP CODE will display.

2. Enter your **4-digit passcode**.
   When you enter the last digit, the menu will open.

3. Select **SERVICE, UNLOCK**.
   When you select UNLOCK, all displays will briefly display asterisks while the 4-digit passcode is being cleared, then the keypanel will reset to the top level menu. You do not need to run SAVE CFG to store this change.

Menus, SERVICE, MIC CTRL

For a KP-12 with an optional Rear Connector Module, you can use this item to select microphone input from either a headset, panel mic or from the EXT MIC IN connector.

1. To change the setting, select **MIC CTRL**.

2. Then, turn the **SELECT** control to display either EXTERNAL, AUTO, HEADSET, or PANEL MIC and tap **SELECT**.

NOTE: When using EXTERNAL, use either one of the EXTERNAL mic connectors at a time.

3. Double-tap the **SELECT** control to return to the previous menu level when finished. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, MIC COMP

MIC COMP is used to adjust the MIC Compression of the audio source so that distortion is limited at the keypanel origin.

1. To change the setting, select **MIC COMP**.

2. Then, turn the **SELECT** control to display either 1:1, 2:1, 3:1, 4:1, and LIMITER and tap **SELECT**.

NOTE: The ratios 1:1, 2:1, etc. are the times the audio is compressed. LIMITER limits audio leaving the keypanel to 10dB above nominal mic level.

3. Double-tap the **SELECT** control to return to the previous menu level when finished. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, MIC GAIN

MIC GAIN adjusts mic gain from -15dB to +15dB. The default setting is 0dB.

1. To change the setting, select **MIC GAIN**.

2. Then, turn the **SELECT** control to scroll between -15dB and +15dB and then tap **SELECT**.

3. Double-tap the **SELECT** control to return to the previous menu level when finished. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, MOD ASGN

NOTE: The information in this section applies when any of the following occurs:

- The call waiting window displays MD1 at power-up
- Key modules have been replaced
- EKP Expansion Panels and/or LCP Level Control Panels are being used with a KP-12
- A group of 4 keys do not operate correctly

When any of these situations occurs, you may have to reprogram MOD numbers as described in the following paragraphs.

How MODS Work

The keypanels, expansion panels and level control panels in this product line all use a system of MODS. **MODS** are simply groups of 4 consecutive intercom system keys and their associated displays (or groups of 4 control knobs in the case of LCPs). Since the DKP-8 and DKP-12 keypanels are typically used without expansion panels and level control panels, only a few MODS are used. If you need to assign MODS on a DKP keypanel, simply refer to the "Procedure to Assign MODS", and set MODS 1 and 2 (DKP-8) or 1-3 (DKP-12) as summarized in Table 4 . The KP-12 keypanel, on the other hand, can be used with various combinations of expansion panels and level control panels. In this case, you need to program each group of four keys on the KP-12 and any connected EKPs to a unique MOD number. And, if you are using LCP level control panels to adjust listen levels for intercom keys, you want to make sure that the MOD numbers for the level control knobs match the MOD numbers for the intercom keys. The LCP MOD numbers cannot be set from the KP-12. They must be set by replacing the internal **read-only memory**. (ROM) in the LCP. Table 4 shows the default MOD numbers that are programmed into the various LCPs. Note, the default settings for LCPs will work when one LCP-12 is used with a KP-12, or when one LCP-16 or LCP-20 is being used with one EKP-16 or EKP-20. However, there are two situations where you will need to change the ROM in and LCP:

- when you want to use an LCP-12 with and EKP-12
- when you are connecting more than one EKP, and you want to use LCPs with each EKP. If you need to change MOD numbers in an LCP, contact you intercom dealer for assistance.

TABLE 4. Default Module Number Assignments

Keypanel/LCP-12 Default MODE Assignments

MOD 1	Keys 1-4
MOD 2	Keys 5-8
MOD 3	Keys 9-12 (not used for DKP-8
MOD 4	Keys 13-16 (Do not assign this MOD. It is used exclusively for the SELECT control and call waiting display on keypanels.)

EKP-12 Default MOD Assignments

MOD 5	Keys 17-20

TABLE 4. Default Module Number Assignments

Keypanel/LCP-12 Default MODE Assignments

MOD 6	Keys 21-24
MOD 7	Keys 25-28

EKP-16/LCP-16 Default MOD Assignments

MOD 5	Keys 17-20
MOD 6	Keys 21-24
MOD 7	Keys 25-28
MOD 8	Keys 29-32

EKP-20/LCP-20 Default MOD Assignments

MOD 5	Keys 17-20
MOD 6	Keys 21-24
MOD 7	Keys 25-28
MOD 8	Keys 29-32
MOD9	Keys 33-36

To set up KP-12 and EKP MOD numbers refer to the "Procedure to Assign MODS", below.

Procedure to Assign MODS

If the keypanel is currently displaying MD1 in the left side of the call waiting window, skip steps 1 through 3.

1. Turn the **SELECT** control to display MENU, then tap the **SELECT** control.
2. Turn the **SELECT** control to display SERVICE, then tap the **SELECT** control.
3. Turn the **SELECT** control to display MOD ASGN, then tap the **SELECT** control.
   The currently assigned MOD numbers should now appear in the displays above the keys on the keypanel (and any connected EKPs connected to a KP-12). Also, MD1 will display in the left side of the call waiting window. This signifies MOD1. The right side of the call waiting window indicates where the module is currently assigned. One of the following will display:
   MAIN indicates the module is assigned to the keypanel
   EXP1indicates the module is assigned to the first expansion panel
   EXP2indicates the module is assigned to the second expansion panel
   NONEindicates the module is not assigned
4. Turn the **SELECT** control until the MOD number you want to assign (MD1, MD2, etc.) is displayed in the left side of the call waiting window. Then, tap the **SELECT** control.

NOTE: Read this instruction completely before proceeding! Turn the SELECT control to select the panel where you want to assign the MOD, BUT DO NOT TAP SELECT YET.

5. On the selected panel, identify the **group of 4 keys** where you want to assign the MOD.
6. Press and hold **any one of these 4 keys**, then tap the **SELECT** control.
   After a few moments, the new MOD number should appear in the displays above the affected keys (if it was not displayed before) and the call waiting window will confirm that the MOD has been assigned as requested by displaying the MOD number and the panel where it was assigned.
7. Double-tap the **SELECT** control to return to the previous menu level, then repeat from **step 5** to assign additional MODs. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

NOTE: MOD changes are saved automatically. You do not need to run SAVE CFG.

Using Multiple Expansion Panels (KP-12 Only)

When using multiple expansion panels, some MOD numbers may have to be reassigned so that each group of 4 keys has its own unique MOD number. Table X shows the correspondence between MOD numbers, key numbers, and setup pages.

Example 1, connecting one EKP-20 along with a KP-12. Use the default MOD numbers as shown in Table 4 on page 42. Next, assign setup pages. See "Top Level Menu, Page (1-4)" on page 24.. You should assign one setup page as MAIN. This page will correspond to the keys on the KP-12. Assign a second setup page as "EXP1". This page will correspond to the first 16 keys on the EKP-20. Assign a third setup page as "EXP2". The first 4 keys on this setup page will correspond to the remaining 4 keys on the EKP-20. The remaining 12 keys on the setup page are not used. If you want to connect LCPs, you can use one LCP-12 and one LCP-20 without changing the ROMs.

Example 2, connecting two EKP-20 Expansion Panels along with a KP-12. From Table 4 on page 42 you can see that the EKP-20 has default MOD numbers 5 through 9. One of the EKPs must therefore be reprogrammed to use MOD 10 through 14. Also, assign one setup page a "Main". (To assign setup pages, See "Top Level Menu, Page (1-4)" on page 24..) This page will correspond to the keys on the KP-12. Assign a second setup page as "EXP1". This page will correspond to the first 16 keys on the first EKP-20. Assign a third setup page "EXP2". The first 4 keys on this setup page will correspond to the first 12 keys on the second EKP-20. The remaining 12 keys on this setup page will correspond to the first 12 keys on the second EKP-20 Assign the last setup page as "EXP3". The first 8 keys on this page will correspond to the remaining 8 keys on the second EKP-20. The remaining 8 keys on the setup page are not used. If you want to connect to LCPs, you can use one LCP-12 for the KP-12 and one LCP-20 for the first EKO-20 without changing the ROMs. You will have to change the ROM in the second LCP-20, however, to match the MOD number for the second EKP-20.

TABLE 5. The relationship between setup pages, key numbers and MOD numbers.

Setup Page 1

Keys 1-4	MOD 1
Keys 5-8	MOD 2
Keys 9-12	MOD 3
Keys 13-16	MOD 4 (Do not assign this MOD ever! It is used exclusively for the SELECT control and call waiting display.)

Setup Page 2

Keys 17-20	MOD 5
Keys 21-24	MOD 6
Keys 25-28	MOD 7
Keys 29-32	MOD 8

Setup Page 3

Keys 33-36	MOD 9
Keys 37-40	MOD 10
Keys 41-44	MOD 11
Keys 45-48	MOD 12

Setup Page 4

Keys 49-52	MOD 13
Keys 53-56	MOD 14
Keys 57-60	MOD 15
Keys 61-64	MOD 16

Menus, SERVICE, MUTE LVL

The front panel speaker is muted by 12dB whenever a talk key is activated. This is done to prevent possible feedback between the microphone and speaker. Headphones are muted 6dB, also to prevent possible feedback, especially with open-air sty headphones. The muting levels for speaker and headphones are independently adjustable as follows:

1. After selecting **MUTE LVL**, turn the **SELECT** control to select either HDPHONE or SPEAKER, then tap **SELECT** again.
    The current muting level will display in the call waiting window.

2. Turn the **SELECT** control to adjust the mute level from -40dB (maximum muting) to 0dB (no muting).

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two second to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, OPTO-ISO (KP-12 with GPI Module Only)

The **Opto-ISO** menu configures the four opto-isolated inputs of the optional General Purpose Interface (GPI) module. These inputs can activate keys, local relays, groups, and setup pages.

1. Select **OPTO-IS**O.
    The call waiting window displays OPT1.

2. Turn the **SELECT** control to select any unused opto-isolator (OPT1-OPT4) then tap **SELECT**.

3. Turn the **SELECT** control to scroll through the assignment options (See Table 6 on page 45). Then, select an option.

    - If you select a group or local relay, the assignment will occur immediately and no confirmation will be given. To check the assignment, use the DISPLAY selection.

    - If you select KEY, TAP KEY will display in the call waiting window. Tap an intercom key to assign that key to be activated by the opto-isolator input. No confirmation of the assignment will be given. To check the assignment, use the DISPLAY selection.

    - If you select a setup page, the call waiting window will display TAP KEY. Tap any intercom key on the panel where you want to assign the setup page. No confirmation of the assignment will be given. To check an assignment, use the DISPLAY selection.

    - If you select CLEAR, the assignment for that opto-isolator input, one of the following indications will be given:

    If the opto-isolator is assigned to a group or relay, the group or relay number will display in the call waiting window.

    If the opto-isolator is assigned to actuate an intercom key, the key number will appear in the call waiting window. KEY 0 corresponds to the first key at the left end of the keypanel.

    If the opto-isolator is assigned to a setup page, the setup page number and the panel to which it is assigned will appear in the call waiting window.

TABLE 6. OPTO-ISO Assignment Options (KP-12 with GPI Module Only)

Name	Description
CLEAR	Clears current assignment
DISPLAY	Displays current assignment, N/A if not assigned
GRP1	Assigns input to actuate Group 1
GRP2	Assigns input to actuate Group 2
GRP3	Assigns input to actuate Group 3
GRP4	Assigns input to actuate Group 4
KEY	Assigns input to actuate a key
LRY1	Assigns input to actuate local relay 1
LRY2	Assigns input to actuate local relay 2
PAGE 1	Assigns input to actuate setup page 1
PAGE 2	Assigns input to actuate setup page 2

TABLE 6. OPTO-ISO Assignment Options (KP-12 with GPI Module Only)

Name	Description
PAGE 3	Assigns input to actuate setup page 3
PAGE 4	Assigns input to actuate setup page 4

Menus, SERVICE, OUT CTRL

OUT CTRL gives you the choice to listen to audio through either HEADSET or SPEAKER no matter what MIC is selected on the front of the keypanel.

1. To change the setting, select **OUT CTRL**.
2. Then, turn the **SELECT** control to display either AUTO, HEADSET, SPEAKER or BOTH and tap **SELECT**.
3. Double-tap the **SELECT** control to return to the previous menu level when finished. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save you changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, RESET

RESET restores all items on the KEY OPT and SERVICE menus (except KEY TYPE and MOD ASGN) to the factory default settings. RESET also resets the keypanel to the front panel speaker and set the VOLUME to minimum at power-up. RESET does not affect any of the talk and listen key assignments that you make using KEY ASGN menu or the top-level menu: these assignments are saved at the intercom system and not the keypanel.

1. After you select **RESET**, the displays will show asterisks for a few moments, then SET ADDR will display as if the keypanel is being powered up for the first time.
   You must reenter the correct keypanel address. See "Menus, SERVICE, SET ADDR" on page 46..

Menus, SERVICE, SAVE CFG

SAVE CFG saves any changes that you make in the AUTODIAL, KEY OPT and SERVICE menus. It also saves the current HDST/SPKR/PRGM settings, and any keys that are defined as any type of phone key.

1. When you select **SAVE CFG**, all alphanumeric displays will briefly display asterisks while the new configuration is being stored, then the keypanel will return to normal operation.
2. The keypanel should now power up with a new configuration.

Menus, SERVICE, SET ADDR

SET ADDR must be used during installation or whenever the keypanel is reset or moved to a new port.

Determining the Keypanel Address, CS9XXX Intercoms

For intercom port numbers ending in 1 through 9, the keypanel address is the last digit of the port number. If the last digit of the port number is 0, use 10 as the keypanel address.

Determining the Keypanel Address, ADAM and ADAM CS Intercoms

Table 7 on page 49.

Determining the Keypanel Address, Zeus Intercom Systems

The address is the number (1-8) printed next to the connector on the back panel of the Zeus Frame. (This number repeats for each group of 8 connectors. The intercom system is able to distinguish between two keypanels set to the same address by the group where each one is connected.)

Setting the Keypanel Address

1. While SET ADDR is displayed, tap the **SELECT** control.
   ADDR 1 will appear in the call waiting window.

2. Turn the **SELECT** control to display the desired logical keypanel address (ADDR 1 through ADDR 10) then tap the SELECT control.
   The new setting will automatically be saved, and after a few moments, the alphanumeric displays will change from asterisks (****) to dashes (----).

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, SERVICE, SIDETONE

When you are using headphones that completely cover the ears, the sidetone feature lets determine if you want to have sidetone on constantly or not and lets you adjust the level of your own voice in headphones to eliminate the muffled sensation when talking over the intercom. This feature also adjusts the chime level.

To set when Sidetone is activated, do the following:

1. In the **SERVICE** menu, turn the **SELECT** control to display **Sidetone**, then tap the **SELECT** control.

2. Turn the **SELECT** control to display either Always ON or Switched.
   Always ON means sidetone will always run whether you are talking or not. Switched means that Sidetone will only be activated when the Talk key is pressed.

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

To Adjust the level you hear, do the following:

1. Activate a talk key, then tap **SIDETONE**.

2. Speak into the headset microphone while turning the **SELECT** control to adjust your voice level, as desired.

Remember to save your changes if you and them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, TALLY

You can set the amount of time that the displays will flash for incoming calls as follows:

1. In the **SERVICE** menu, turn the **SELECT** control to display TALLY, then tap the **SELECT** control.

2. Turn the **SELECT** control to display any of the following time periods (in seconds), then tap the **SELECT** control.
   (5 SEC, 10 SEC, 15 SEC, or EXTEND) If you select EXTEND, displays will flash continuously for incoming calls until the calls are answered.

3. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Remember to save your changes if you want them retained for future use. See "Menus, SERVICE, SAVE CFG" on page 46..

Menus, SERVICE, TEST PNL

TEST PNL lets you check operation of indicators and controls.

When you select TEST PNL, the following sequence will occur:

- All alphanumeric displays will display% symbols to verify display operation.

- All tri-color indicators will flash green-yellow-red-off. All single-color indicators will flash green-off. This verifies the operation of all indicators displays.

• The call waiting window will display TAP KEYS.

4. If you tap **any intercom key**, the display above that key will briefly display OK.
   If you turn either the SELECT or VOLUME control, the alphanumeric display above the control will increment or decrement by ones at each detente. If you tap the SELECT or VOLUME control, the call waiting window will display OK. This verifies operation of all controls.

5. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Menus, SERVICE, TONE

An internal tone generator may be turned on to check the audio path.

1. In the SERVICE menu, select **TONE**, then turn the **SELECT** control to select ON or OFF and tap the **SELECT** control again.

NOTE: You can check the audio path to and from the keypanel by assigning a point-to-point key assignment (with auto-listen). When you activate the key, the tone should be audible.

2. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit the menu mode.

Menus, SERVICE, USM (Unswitched Microphone, for KP-12 with Rear Connector Module Only)

This menu serves two functions: it is used to provide a hot mic output to the intercom system, and it is used to activate/deactivate microphone output to the MIC PRE OUT connector of the optional Rear Connector Module.

1. In the SERVICE menu, select **USM**.
2. Turn the **SELECT** control to display either OUT ENBL (hot mic output to intercom system) or PRE AMP (hot mic output to MIC PRE OUT connector). Then, tap the **SELECT** control.
3. Turn the **SELECT** control to select either ON or OFF, then tap the **SELECT** control.
4. Double-tap the **SELECT** control to return to the previous menu level. Or, press and hold the **SELECT** control for two seconds to exit menu mode.

Table 7: Correspondence between ADDR numbers and intercom port numbers for ADAM and ADAM CS Intercom Systems

Settings for ADDR	Intercom Port Numbers																								
1	1	9	17	25	33	41	49	57	65	73	81	89	97	105	113	121	129	137	145	153	161	169	177	185	193
2	2	10	18	26	34	42	50	58	66	74	82	90	98	106	114	122	130	138	146	154	162	170	178	186	194
3	3	11	19	27	35	43	51	59	67	75	83	91	99	107	115	123	131	139	147	155	163	171	179	187	195
4	4	12	20	28	36	44	52	60	68	76	84	92	100	108	116	124	132	140	148	156	164	172	180	188	196
5	5	13	21	29	37	45	53	61	69	77	85	93	101	109	117	125	133	141	149	157	165	173	181	189	197
6	6	14	22	30	38	46	54	62	70	78	86	94	102	110	118	126	134	142	150	158	166	174	182	190	198
7	7	15	23	31	39	47	55	63	71	79	87	95	103	111	119	127	135	143	151	159	167	175	183	191	199
8	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192	200
1	201	209	217	225	233	241	249	257	265	273	281	289	297	305	313	321	329	337	345	353	361	369	377	385	393
2	202	210	218	226	234	242	250	258	266	274	282	290	298	306	314	322	330	338	346	354	362	370	378	386	394
3	203	211	219	227	235	243	251	259	267	275	283	291	299	307	315	323	331	339	347	355	363	371	379	387	395
4	204	212	220	228	236	244	252	260	268	276	284	292	300	308	316	324	332	340	348	356	364	372	380	388	396
5	205	213	221	229	237	245	253	261	269	277	285	293	301	309	317	325	333	341	349	357	365	373	381	389	397
6	206	214	222	230	238	246	254	262	270	278	286	294	302	310	318	326	334	342	350	358	366	374	382	390	398
7	207	215	223	231	239	247	255	263	271	279	287	295	303	311	319	327	335	343	351	359	367	375	382	391	399
8	208	216	224	232	240	248	256	264	272	280	288	296	304	312	320	328	336	344	352	360	368	376	383	392	400
1	401	409	417	425	433	441	449	457	465	473	481	489	497	505	513	521	529	537	545	553	561	569	577	585	593
2	402	410	418	426	434	442	450	458	466	474	482	490	498	506	514	522	530	538	546	554	562	570	578	586	594
3	403	411	419	427	435	443	451	459	467	475	483	491	499	507	515	523	531	539	547	555	563	571	579	587	595

Table 7: Correspondence between ADDR numbers and intercom port numbers for ADAM and ADAM CS Intercom Systems

Settings for ADDR	Intercom Port Numbers																								
4	404	412	420	428	436	444	452	460	468	476	484	492	500	508	516	524	532	540	548	556	564	572	580	588	596
5	405	413	421	429	437	445	453	461	469	477	485	493	501	509	517	525	533	541	549	557	565	573	581	589	597
6	406	414	422	430	438	446	454	462	470	478	486	494	502	510	518	526	534	542	550	558	566	574	582	590	598
7	407	415	423	431	439	447	455	463	471	479	487	495	503	511	519	527	535	543	551	559	567	575	583	591	599
8	408	416	424	432	440	448	456	464	472	480	488	496	504	512	520	528	536	544	552	560	568	576	584	592	600
1	601	609	617	625	633	641	649	657	665	673	681	689	697	705	713	721	729	737	745	753	761	769	777	785	793
2	602	610	618	626	634	642	650	658	666	674	682	690	698	706	714	722	730	738	746	754	762	770	778	786	794
3	603	611	619	627	635	643	651	659	667	675	683	691	699	707	715	723	731	739	747	755	763	771	779	787	795
4	604	612	620	628	636	644	652	660	668	676	684	692	700	708	716	724	732	740	748	756	764	772	780	788	796
5	605	613	621	629	637	645	653	661	669	677	685	693	701	709	717	725	733	741	749	757	765	773	781	789	797
6	606	614	622	630	638	646	654	662	670	678	686	694	702	710	718	726	734	742	750	758	766	774	782	790	798
7	607	615	623	631	639	647	655	663	671	679	687	695	703	711	719	727	735	743	751	759	767	775	783	791	799
8	608	616	624	632	640	648	656	664	672	680	688	696	704	712	720	728	736	744	752	760	768	776	784	792	800
1	801	809	817	825	833	841	849	857	865	873	881	889	897	905	913	921	929	937	945	953	961	969	977	985	993
2	802	810	818	826	834	842	850	858	866	874	882	890	898	906	914	922	930	938	946	954	962	970	978	986	994
3	803	811	819	827	835	843	851	859	867	875	883	891	899	907	915	923	931	939	947	955	963	971	979	987	995
4	804	812	820	828	836	844	852	860	868	876	884	892	900	908	916	924	932	940	948	956	964	972	980	988	996
5	805	813	821	829	837	845	853	861	869	877	885	893	901	909	917	925	933	941	949	957	965	973	981	989	997
6	806	814	822	830	838	846	854	862	870	878	886	894	902	910	918	926	934	942	950	958	966	974	982	990	998
7	807	815	823	831	839	847	855	863	871	879	887	895	903	911	919	927	935	943	951	959	967	975	983	991	999
8	808	816	824	832	840	848	856	864	872	880	888	896	904	912	920	928	936	944	952	960	968	976	984	992	1000

# KP-12 Audio Transmit Board Connections
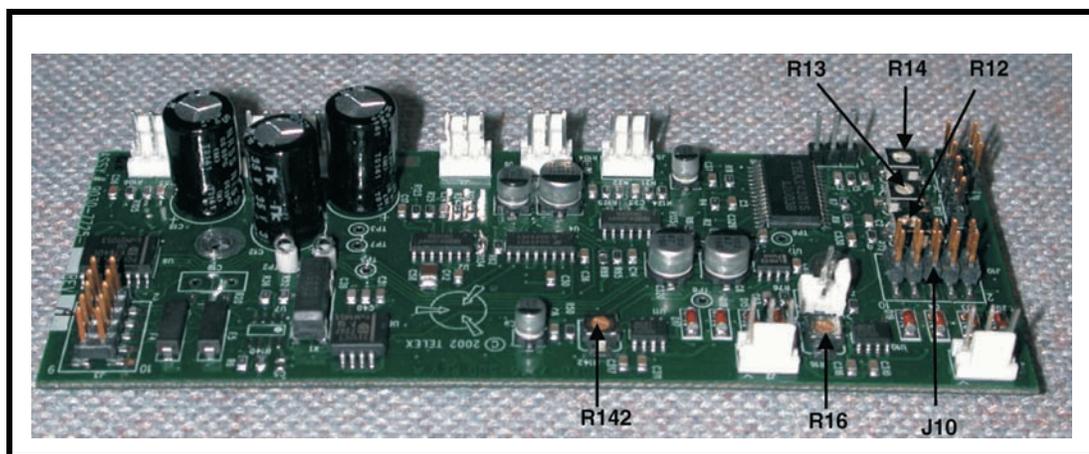
The new audio transmit board (9030-7725-500), if used with the new controller board (9030-7725-000) has digital control for compression setting and Mic gain setting through the master volume encoder of the KP-12.

By inspecting the audio transit board, the following pots, jumpers and connectors are identified:

1. R16 and R142 are attenuation pots for the Matrix Out and Preamp Out, respectively. These pots determine the upper limit for the mic gain.

2. R12 is used for threshold settings. It determines at what level the mic signal should be compressed. With the current setting, any signal above -50dB is compressed to a 2:1 ratio.

3. R13 is used for compressing settings. With this pot any compression ratio can be set between a 1:1 ratio (no compression, clockwise) and infinity:1 (limiter, counter-clockwise).

4. R14 is for mic gain. This pot adds gain/attenuation to the mic signal.

5. The J10 connector is the digital connection for the digital control.

IMPORTANT! - If you are using an earlier model KP-12, and your audio transmit board needs to be replaced, you will need to make the following adjustments with the new audio transmit board for it to work properly.
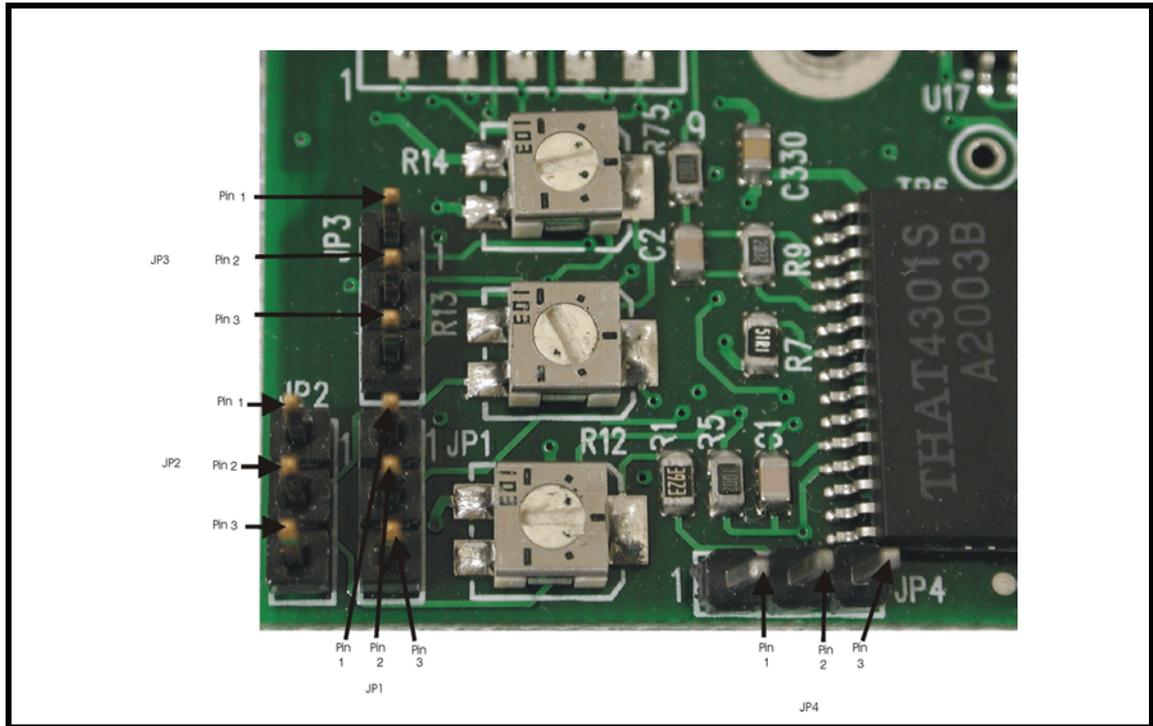
There are four jumpers on the audio transmit board (9030-7725-500) - JP1, JP2, JP3, and JP4.

- If the new audio transmit board is used with the old audio controller board (9030-7504-000), jumpers should be installed between pin 2 and 3 of JP1, JP2, JP3, and JP4.

- If the new audio transmit board (9030-7725-500) is used with the new audio controller board (9030-7725-000), jumpers should be installed between pin 1 and 2 of JP1, JP2, JP3, and JP4

- Connect J10 on the new audio transmit board (9030-7725-500) with J11 on the new controller board (9030-7725-000) through a 10-pin header.

Replacing the KP-12 Power Supply

Replacing the KP-12 Power Supply

These instructions explain how to replace the old KP-12 power supply (part number 352024-000) with the new power supply (part number 532088-000).

Included in this kit:

- Power Supply - part number 532088-000
- 3 metal tabs - part number 702156-000
- 1 washer - part number 52186-008
- 3 screws - part number 51845-038

To change the power supply in the KP-12 series keypanels, do the following:

NOTE: Make sure to disconnect the KP-12 unit from power.

1. Remove the KP-12 cover carefully.
2. Disconnect **CN1** and **CN2**.

FIGURE 1. Old Power Supply

3. Remove the **four (4) placement screws** and remove the power supply.
   Set the four screws aside, they will be used to remount the new power supply.

NOTE: If you have an older chassis, you will need to attach the 3 metal tabs as shown in the figure below. You will also need to use the supplied washer on the screw hole with no metal tab (the washer goes between the board and the chassis hole). If you have a new chassis, you can discard the metal tabs and washer.

4. If applicable, using the supplied screws, attach the metal tabs as shown in Figure 2.
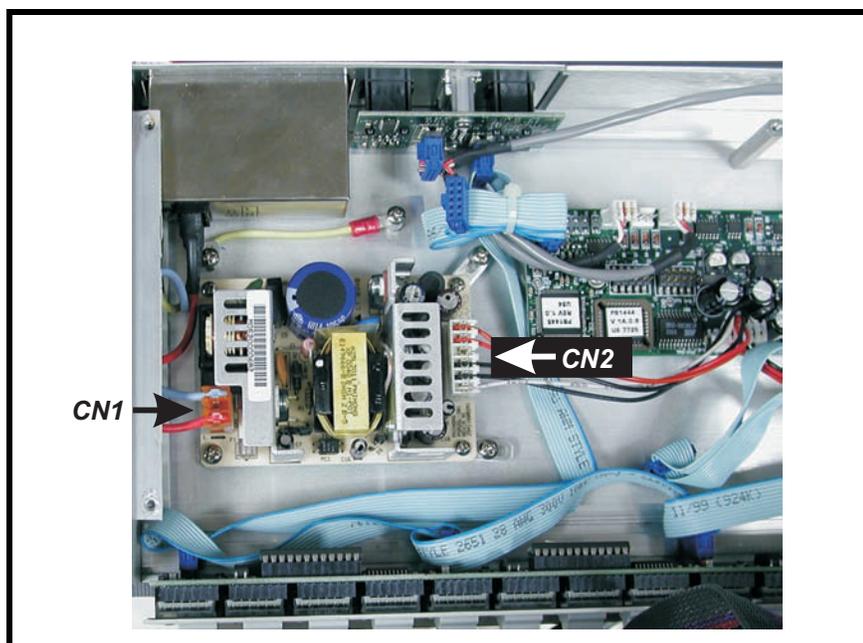
FIGURE 2. New Power Supply
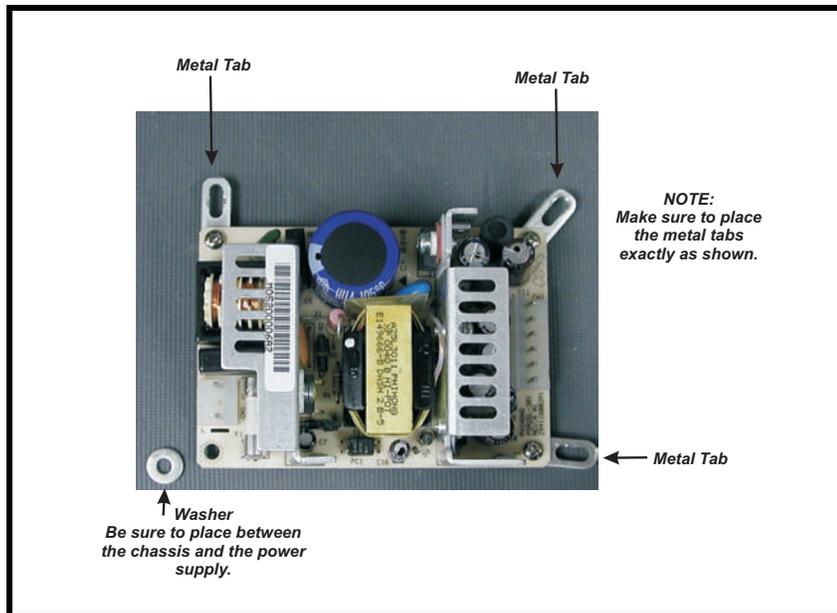
5. Using the screws from the old power supply, attach the power supply to the chassis.

NOTE: Place the washer between the new power supply and the chassis screw hole.

6. Reattach CN1 and CN2 (see figure below).

FIGURE 3. New Power Supply- Installed

7. Replace the cover on the KP-12.