Innovating the Future of Global Communications

KP 12 CLD Color Keypanel
User Manual

up to and including version 1.3.0

KP 12 CLD

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WARNING: APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

WARNING: THE MAIN POWER PLUG MUST REMAIN READILY OPERABLE.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, GROUNDING OF THE CENTER PIN OF THIS PLUG MUST BE MAINTAINED.

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WARNING: TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL/RACK IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.

~	This product is AC only.
CE	

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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CHAPTER 1

Introduction

The revolutionary KP 12 CLD from RTS introduces several new features designed to enhance capability and ease of use. The intuitive graphical interface is housed inside two (2) full-color, 4.2 inch LCD displays. The front panel also features conveniences such as a user-programmable button, 1-touch listen volume adjustment on each of the new multifunction user keys, and a backlit keypad. In addition, the KP 12 CLD can be ordered with the new, more intuitive Default CLD key sequences, or the Classic key sequences. Like all RTS products, the KP 12 CLD is designed with expansion in mind. The front-mounted USB port and modular rear panel allow for future upgrades keeping the KP 12 CLD on the forefront of technology for years to come.

Features

Full-Color LCD Displays	The new color displays hosts a rich and intuitive graphical user interface that indicates different keypanel functions in different colors.
Modern, Modular Design	The front panel is ergonomically designed to fit easily into any control room or truck application. The back panel is optimized for future expansion.
Multi-Directional Keys	14, multi-directional; 12 keys used for talk, listen, level control functions, and two(2) keys used for Mic Select and the **CWW** (Call Waiting Window).
Future Expansion	Designed to allow for an expansion panel and optional connections to the matrix through current and future standard transmission formats.
Enhanced Features	KP 12 CLD allows up to three (3) auxiliary inputs, three (3) relays, independent digital gain control for microphone sources, configurable audio routing and much more, through the use of an option board.
DSP Processing	Acoustic Echo Cancellation, Equalization, Mixing, Filtering and Metering are available.
User-Programmable Button	A **UPG** (User Programmable Button) provides custom shortcuts to various menu functions.
KP 12 CLD Expansion Panel Available	The KP 12 CLD expansion panel provides additional connectors for relay, headset, footswitch/speaker, mic In/Out, auxiliary, and other functions.
RVON-2 Option Card Available	The RVON-2 Option card provides up to two (2) additional full-duplex audio channels that can be mixed with audio in the CLD keypanels.
OKI-2 Option Card Available	The OKI-2 Option card provides up to two (2) additional full-duplex audio channels that can be mixed with audio in the CLD keypanels.

Specifications

LCD Display
- Size
  - 4.2” LCD
- Resolution:
  - 432 (RGB) x 96

Input Sources
- Panel Microphone / GPIO MIC IN
  - Electret Microphone Input Level
    - Nominal Level
      - -42.5dBu
    - Maximum Level
      - -22.5dBu
    - Impedance
      - 1kΩ to 10kΩ
- Headset
  - Dynamic Microphone Input Level
    - Nominal Level
      - -60dBu
    - Maximum Level
      - -30dBu
    - Impedance
      - ≤600Ω
  - Electret Microphone Input Level
    - Nominal Level
      - -42.5dBu
    - Maximum Level
      - -22.5dBu
    - Impedance
      - 1kΩ to 10kΩ
- Keypanel Input
  - Nominal Input Level
    - 8dBu
  - Maximum Input Level
    - 20dBu
- Auxiliary Input
  - Nominal Input Level
    - 8dBu
  - Maximum Input Level
    - 20dBu

Output
- Keypanel Output
  - Nominal Output Levels
    - 8dBu
  - Maximum Output Level
    - 20dBu
  - Frequency Response
    - 100 - 15kHz ±2dB
- MIC OUT
  - Nominal Output Level
    - 8dBu
  - Maximum Output Level
    - 20dBu
  - Frequency Response
    - 100 - 15kHz ±2dB
- Headphone Speaker
  - Power
    - 80mW into 600Ω
  - Impedance
    - 150Ω
- Panel Speaker
  - Frequency Response
    - 250 - 15kHz ±2dB
  - Sensitivity, dB/W/dB
    - 84
- Power
  - 4W, 8Ω
- Tone Generator
  - Output Level
    - 8dBu
  - Output Frequency
    - 500Hz or 1kHz
- General IO
  - 1-3 Relay Outputs
  - 1 Open Collectors
  - 1-4 Opto-Isolators

Connectors

Panel Microphone	1/4” Jack (see “1 1/4” Stereo Jack (Panel Mic)” on page 16 for pinouts).
Panel Headset	4-, 5-, 6-pin Female XLR (see “4-, 5-, 6-, 7-pin XLR (Female) Headset” on page 16 for pinouts).
USB	USB Type A
Keypanel Audio Input / Output	DB-9, RJ-45 (Supports RTS RJ-11 cabling or Standard CAT-5 cabling) See “RJ-45 Frame (RTS RJ11 Cable)” and “DB-9 (male) Frame” on page 18 for pinouts.
Expansion	RJ-45 (see “RJ-45 EXP (expansion)” on page 18 for pinouts).
GPIO MIC OUT	Male XLR-3 (see “XLR-3 (male) - Mic OUT” on page 17 for pinouts).
GPIO MIC IN	Female XLR-3 (see “XLR-3 (female) - Mic IN” on page 17 for pinouts).
GPIO Aux 1-2	Female XLR-3 (see “XLR-3 (female) - AUX 1& 2” on page 17 for pinouts).
GPIO Headset	DB-9 (see “DB-9 (male) Headset” on page 17 for pinouts).
GPIO Relays 1-3	DB-9 (see “DB-9 Relay 1, 2, 3” on page 16 for pinouts).
GPIO Open Collector	DB-9 (see “DB-9 (male) Open Collector (1-2)” on page 16 for pinouts).
GPIO Opto-Isolators 1-4	DB-9 (see “DB-9 (male) Opto-Isolator (1-4)” on page 16 for pinouts).

General

KP 12 CLD
- Storage Temperature
  - -40°C to 70°C (-40°F to 158°F)
- Operating Temperature
  - -15°C to 50°C (5°F to 122°F)
- Dimensions
  - 19”L x 1.74”H x 4.28”D (482.6mm x 44.2mm x 108.71mm)
  - KP 12 CLD expansion panel
    - 15.25”L x 1.72”H x 3.5”D (387.35mm x 43.69mm x 88.9mm)
- Weight
  - KP 12 CLD (keypanel only): 3.76lb (1.705kg)
  - KP 12 CLD expansion panel only: 2.46lb (1.115kg)
- Power Consumption

	@ 120 VAC	@ 220 VAC
No Options	24	43
GPIO Only	52	82
RVON Only	30	47
GPIO and RVON Options	58	86
OKI Only	32	49
GPIO and OKI Options	60	88

OKI Board
- Audio
  - Frequency Response: 50Hz to 19kHz
  - Network Delay: <20ms typical
- Bandwidth Requirements
- Per Channel
  - **Rx Latency**: 1ms — **48kHz/24-Bit**: 2.59Mbit/s

RVON-2 Option Board

Compression	Audio Bit Rate	Coding Delay	Playout Delay	IP Bandwidth
G.711	64k	125us	20–60ms	160–224kbps
G.729A	8k	10ms	20–120ms	32–112kbps
G.723	5.3k/6.3k	30ms	60–120ms	29–45kbps

KP 12 CLD Block Diagram

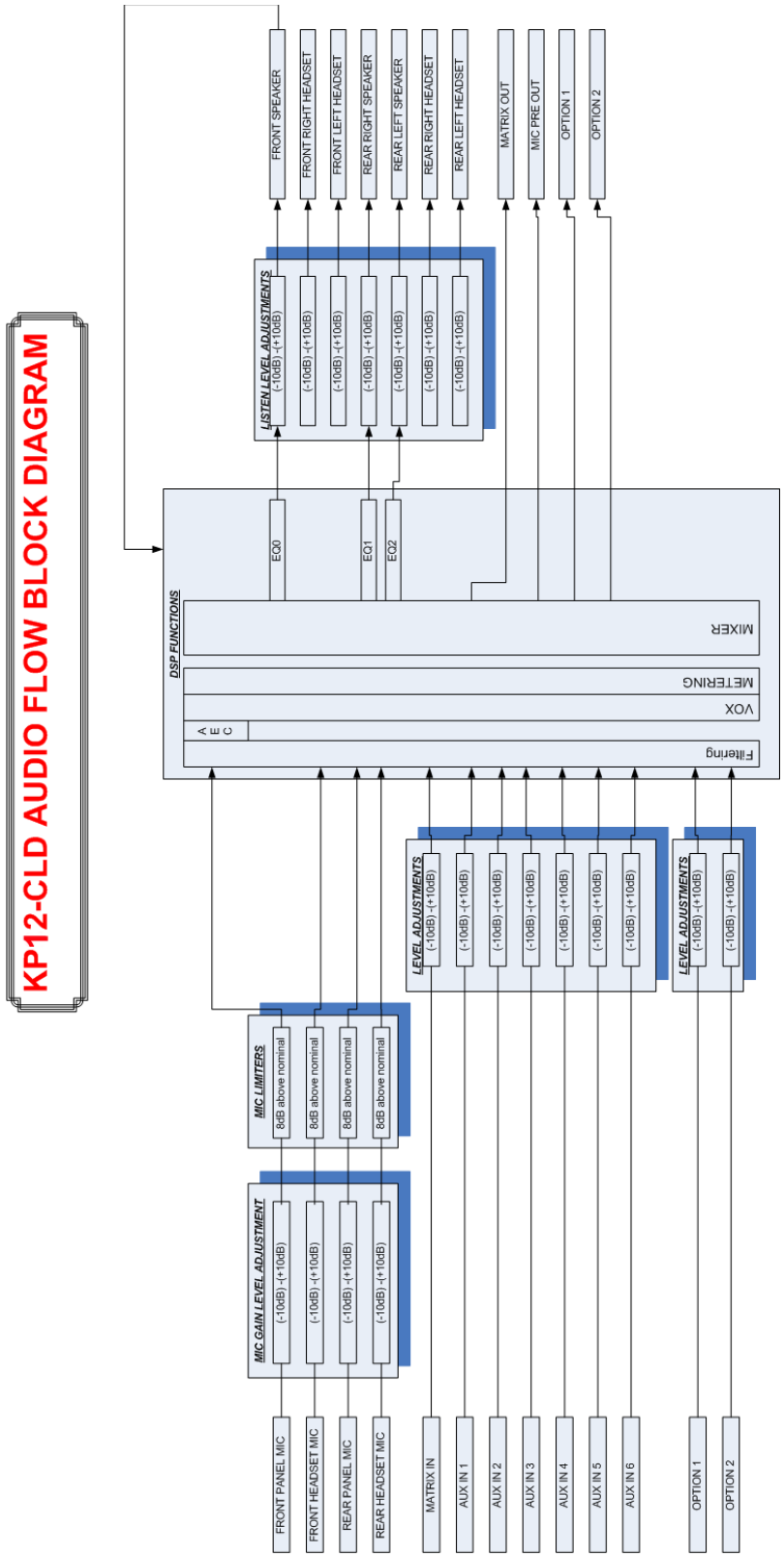


FIGURE 1. KP 12 CLD Block Diagram

Reference View - KP 12 CLD

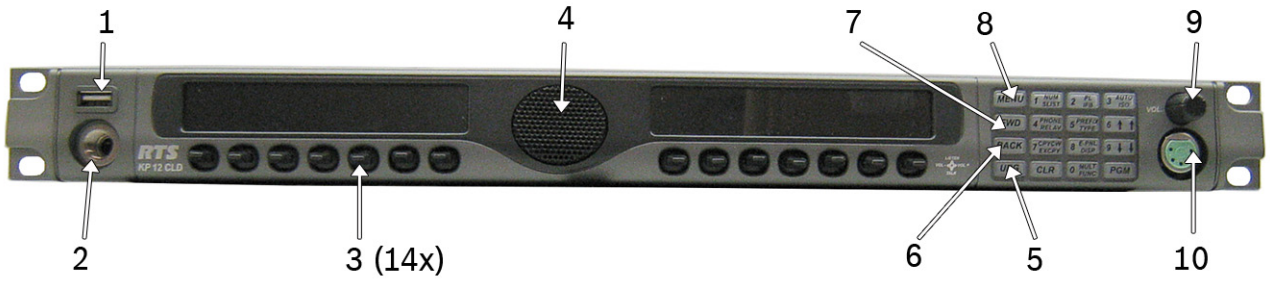
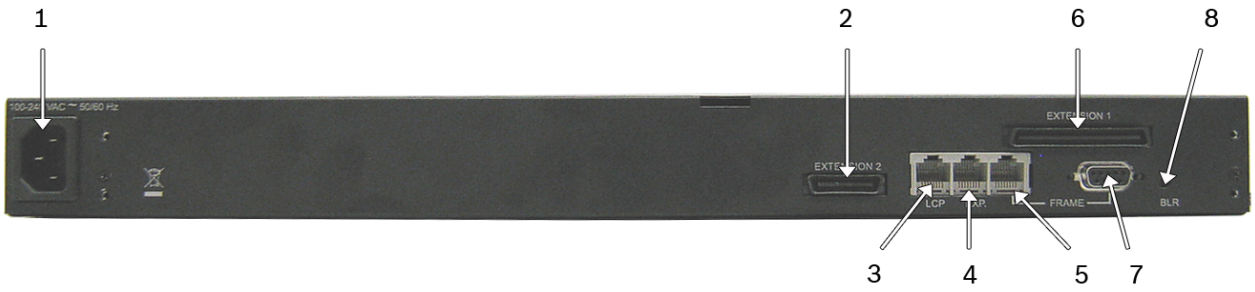


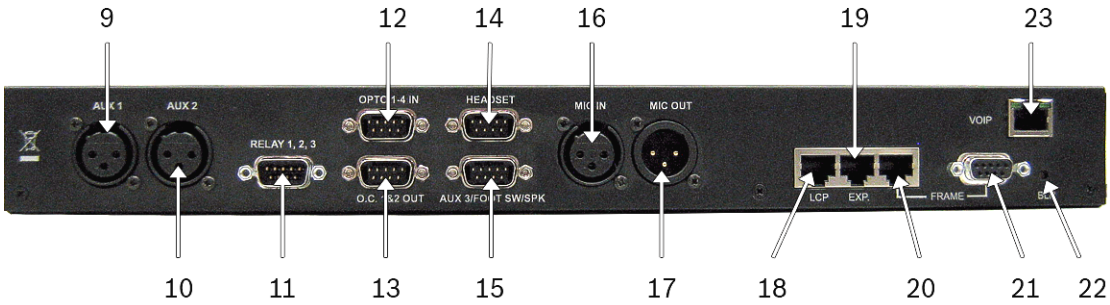
FIGURE 2. KP 12 CLD Front Panel

Front Panel Descriptions

1. **USB Connector** - Power enabled USB connector.
2. **1/4" Stereo Jack** - Panel Mic.
3. **Keypanel Keys** - Press down to talk, press up to listen. For more information, see "Basic Intercom Key Operation" on page 41.
4. **Panel Speaker** - For more information, see "Mute the Microphone/Speaker" on page 49.
5. **UPG button** - The user can assign many functions from the menu structure to this key.
6. **BACK button** - Allows you to go backward in the menu structure.
7. **FWD button** - Allows you to go forward in the menu structure.
8. **MENU button** - For detailed explanation, see "KP 12 CLD Menu System" on page 67.
9. **Main Volume** - Adjusts the volume for the front speaker, rear speaker, front headset and rear headset.
10. **4- or 5-pin XLR (female)** - Headset only connection.
    6- or 7-pin XLR (female) - Headset and Footswitch connection.



KP 12 CLD Keypanel Rear



GPIO Expansion Panel with RVON-2 Rear Panel View

GPIO Expansion Panel with OKI Rear View

FIGURE 3. KP 12 CLD Back Panel and KP 12 CLD Expansion Panel with RVON-2 and OKI Option Cards

KP 12 CLD Rear Panel Descriptions

1. **AC Power Connector**
2. **Extension 2**
3. **RJ-45 Connector LCP 16 CLD** –used to control AUX, Speaker and Headset levels.
4. **RJ-45 Connector** - Expansion
5. **RJ-45 Connector** - Frame
6. **Extension 1**
7. **DB-9 Connector** - Frame
8. **Boot Loader** - For more information, see “Download Firmware Using the BLR Function” on page 62.

Optional GPI 12 Expansion Unit

9. **XLR-3 (female) Connector** - Aux 1
10. **XLR-3 (female) Connector** - Aux 2
11. **DB-9 (male) Connector** - Relay 1, 2, 3
12. **DB-9 (male) Connector** - Opto 1-4 IN
13. **DB-9 (male) Connector** - OC 1 and 2 OUT
14. **DB-9 (male) Connector** - Headset
15. **DB-9 (male) Connector** - Aux 3/Footswitch/Speaker
16. **XLR-3 (female) Connector** - Mic IN
17. **XLR-3 (male) Connector** - Mic OUT
18. **RJ-45 Connector LCP 16 CLD** - used to control AUX, Speaker and Headset levels.
19. **RJ-45 Connector** - Expansion
20. **RJ-45 Connector** - Frame
21. **DB-9 Connector** - Frame
22. **Boot Loader** - For more information, see “Download Firmware Using the BLR Function” on page 62.

Optional RVON-2 Option Card

23. **Ethernet RJ-45 Connector** - RVON-2 Matrix Connection

Optional OKI Option Card

24. **Ethernet RJ-45 Connector (2x)** - OKI Matrix Connection
25. **LC Fiber Connector**

Connector Pinouts

Main Unit

USB Type A	
1	USB 5V
2	Data -
3	Data +
4	DGND

1 1/4” Stereo Jack (Panel Mic)	
Tip	Audio + and DC Bias
Ring	GND
Sleeve	Chassis GND

4-, 5-, 6-, 7-pin XLR (Female) Headset				
	4-pin	**5-pin**	**6-pin**	**7-pin**
Pin 1	GND (MIC)	GND (MIC)	GND (MIC)	GND (MIC)
Pin 2	MIC +	MIC +	MIC +	MIC +
Pin 3	GND (SPK)	GND (SPK)	GND (SPK)	GND (SPK)
Pin 4	L SPK	L SPK	L SPK	L SPK
Pin 5		R SPK	GND (FS)	R SPK
Pin 6			Footswitch	GND (FS)
Pin 7				Footswitch

Expansion Panel

DB-9 Relay 1, 2, 3			
	RLY 1	**RLY2**	**RLY3**
Common	Pin 2	Pin 5	Pin 8
NC	Pin 1	Pin 4	Pin 7
NO	Pin 3	Pin 6	Pin 9

DB-9 (male) Opto-Isolator (1-4)	
Pin	**Assignment**
1	GND
2	GND
3	GND
4	GND
5	GND
6	Switch Contact Input 1
7	Switch Contact Input 2
8	Switch Contact Input 3
9	Switch Contact Input 4

DB-9 (male) Open Collector (1-2)	
Pin	**Assignment**
1	DGND
2	Emitter OC1
3	Collector OC2
4	DGND
5	Emitter OC2
6	Collector OC2
7	+5VD
8	NC
9	+5VD

DB-9 (male) Headset	
Pin	**Assignment**
1	AGND
2	NC
3	NC
4	NC
5	Mic Input +
6	AGND
7	Headset Listen Out Left
8	Headset Listen Out Right
9	Mic Input -

DB-9 (male) AUX 3/Footswitch/Speaker	
Pin	**Assignment**
1	NC
2	Speaker Left -
3	Aux 3 =
4	Speaker Right -
5	Footswitch
6	Speaker Left +
7	Aux 3 -
8	Speaker Right +
9	DGND

XLR-3 (female) - AUX 1& 2	
Pin	**Assignment**
1	GND
2	Input +
3	Input -

XLR-3 (female) - Mic IN	
Pin	**Assignment**
1	AGND
2	Audio + and DC Bias
3	AGND

XLR-3 (male) - Mic OUT	
Pin	**Assignment**
1	AGND
2	Audio Output +
3	Audio Output -

Main and Expansion Panel

DB-9 (male) Frame	
Pin	**Assignment**
1	RS-485 +
2	RS-485 -
3	Shield
4	Audio OUT (to Matrix) +
5	Audio OUT (to Matrix) -
6	Shield
7	Audio IN (from Matrix) -
8	Audio IN (from Matrix) +
9	Shield

RJ-45 Frame (RTS RJ11 Cable)	
Pin	**Assignment**
1	N/A
2	RS-485 -
3	Audio IN (from Matrix) +
4	Audio OUT (to Matrix) +
5	Audio OUT (to Matrix) -
6	Audio IN (from Matrix) -
7	RS-485 +
8	N/A

NOTE: See Figures 4, 5, 6 for specific switch settings for the type of RJ-45 cable connection used.

RJ-45 Frame (Commercial Ethernet Cable)	
Pin	**Assignment**
1	RS-485 + (pair 1&2)
2	RS-485 - (pair 1&2)
3	Audio IN (from Matrix) +
4	Audio OUT (to Matrix) +
5	Audio OUT (to Matrix) -
6	Audio IN (from Matrix) -
7	RS-485 + (pair 7&8)
8	RS-485 - (pair 7&8)

RJ-45 EXP (expansion)	
Pin	**Assignment**
1	GND
2	GND
3	GND
4	GND
5	RS-485 +
6	RS-485 -
7	GND
8	Reserved

RJ-45 LCP	
Pin	**Assignment**
1	Data to LCP
2	Clock OUT
3	Data from LCP
4	GND
5	GND
6	GND
7	GND
8	GND

Accessing the Switch Bank on the KP 12 CLD Unit

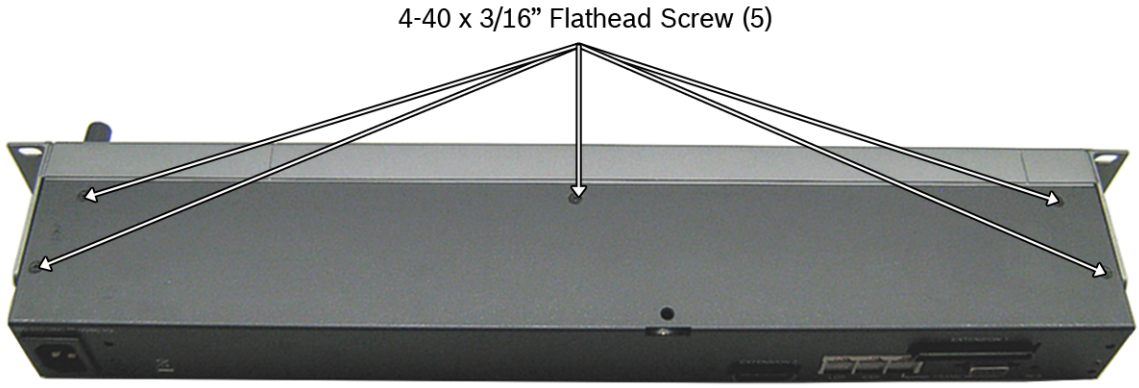
Use the Switch Bank, shown in Figure 4, Figure 5, and Figure 6 to configure the cable scheme you want to use. There are three (3) available Ethernet cabling arrangements:

NOTE: Currently Ethernet Standard 568A and 568B are not supported.

- USOC
- RS-485 using pin 1 and pin 2 (Ethernet standard 568A)
- RS-485 using pin 7 and pin 8 (Ethernet standard 568B)

To **access the switch bank**, do the following:

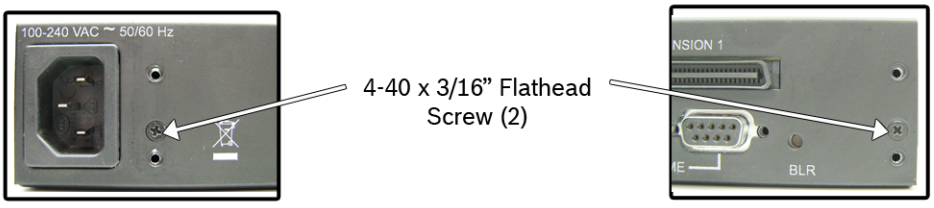
1. Remove the **five (5) screws** on the top of the unit.



KP 12 CLD Top View

2. Remove the **following screws**.

Back View

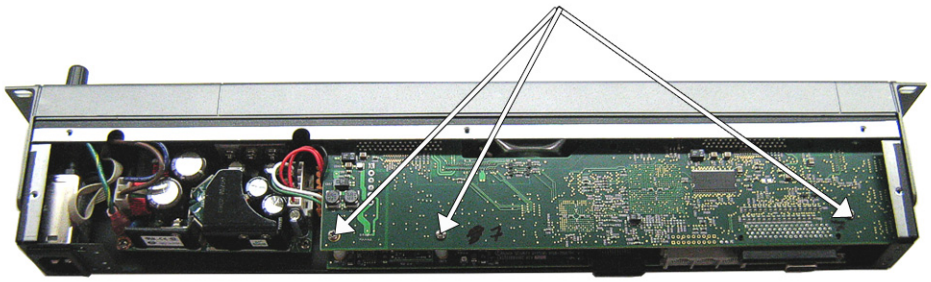


Detail A Detail B

3. Carefully lift the **chassis up and back** to remove the back panel.

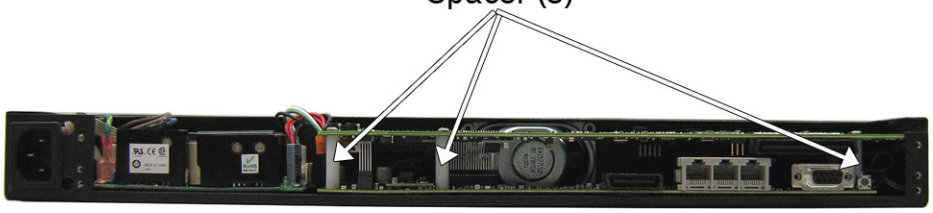
4. Remove the **three (3) stabilizing screws and standoffs**.

4-40 x 1.25” Pan Head Screw (3)



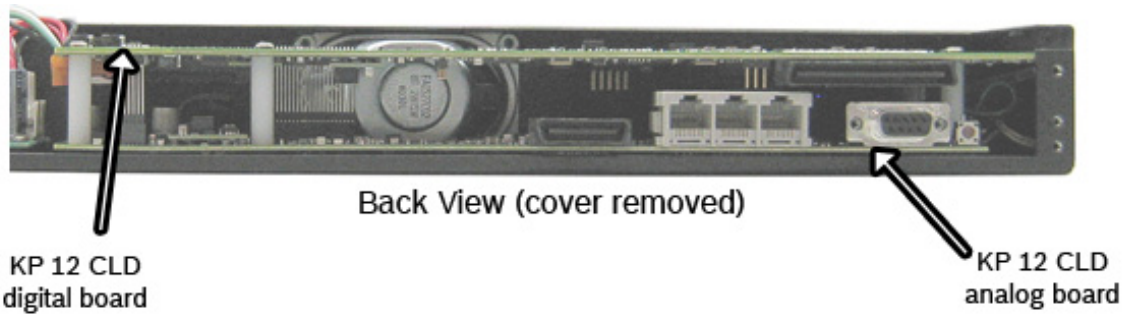
Top View (cover removed)

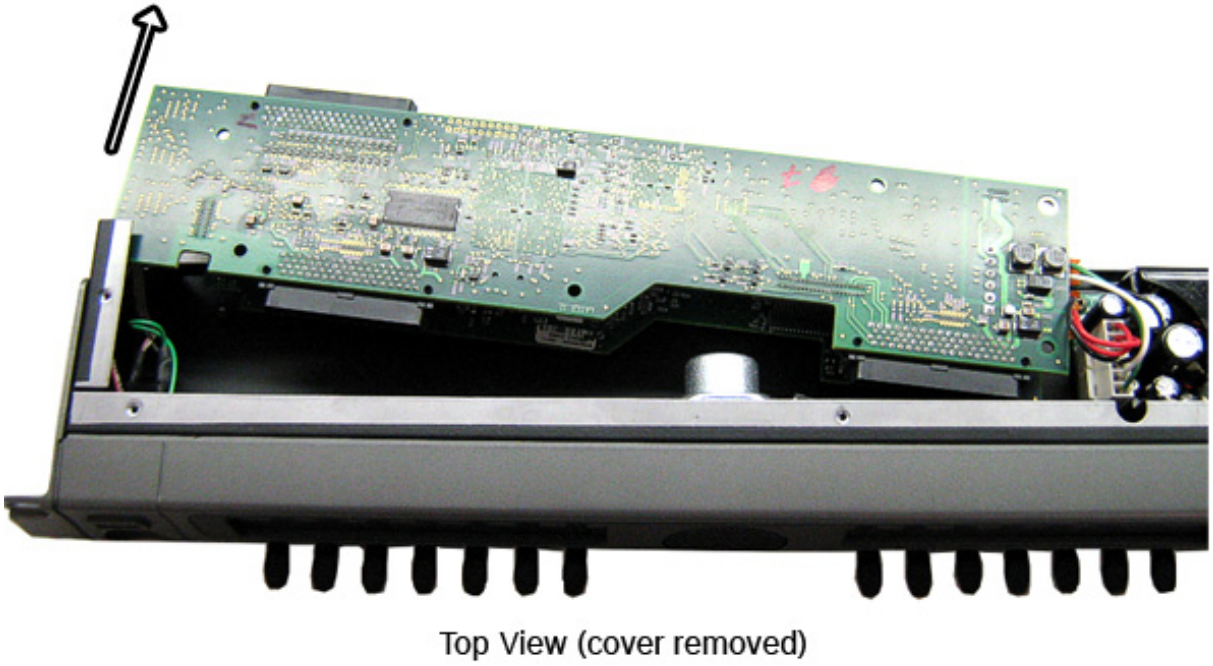
Spacer (3)



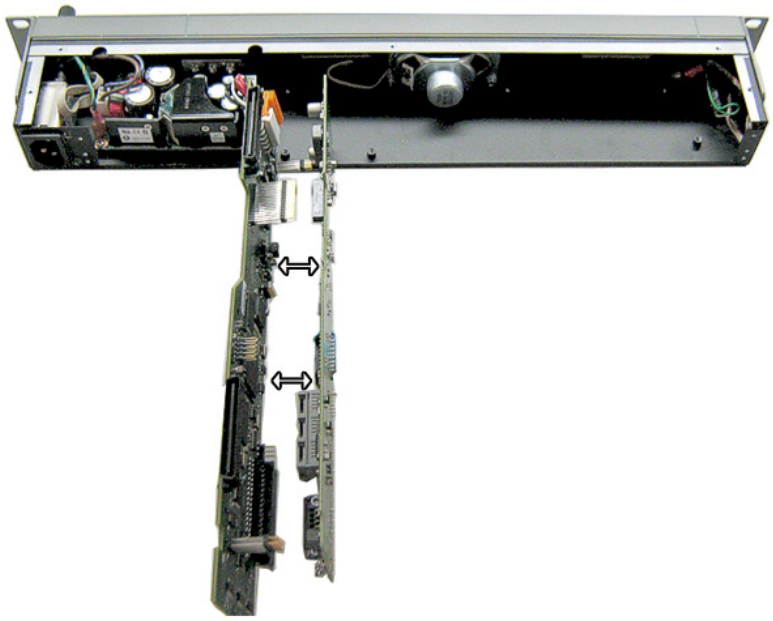
Back View (cover removed)

5. Gently pull the **board set from the unit**.

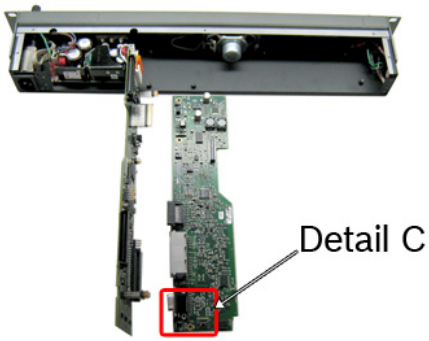




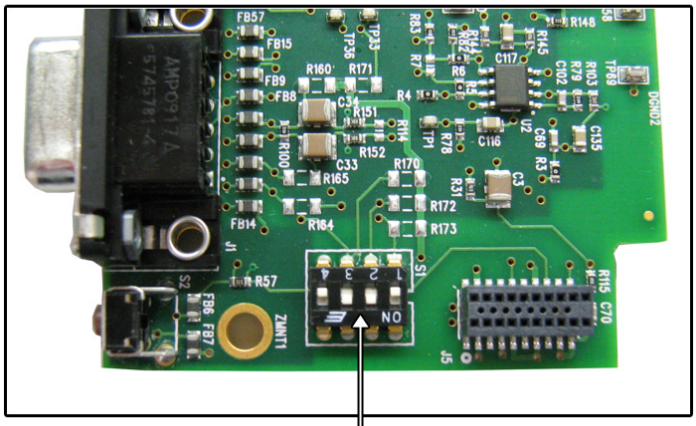
6. Gently pull the **bottom board from the top board** taking care not to pull the wires attached to the top board free.

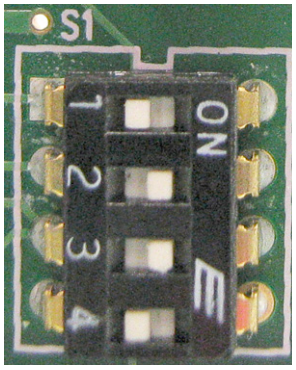


7. Using a pen or screwdriver, set the **switches** to the type of operation you desire. For operation modes, see Figure 4, Figure 5, or Figure 6 on page 23.



Detail C





Switch 1 - OFF
Switch 2 - ON
Switch 3 - ON
Switch 4 - OFF

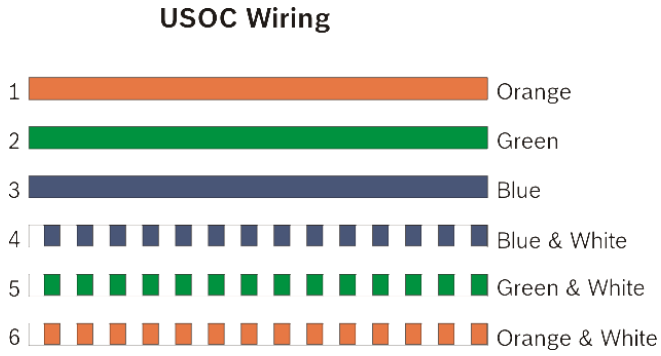
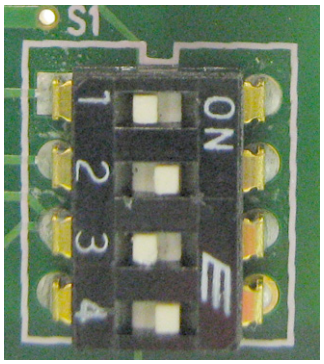


FIGURE 4. RTS Standard Cable (USOC)



Switch 1 - ON
Switch 2 - OFF
Switch 3 - ON
Switch 4 - OFF

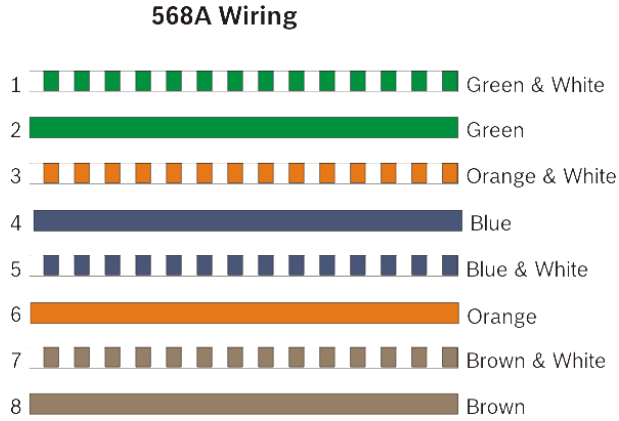
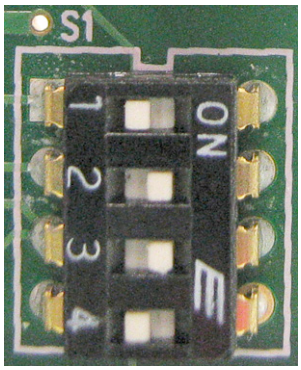


FIGURE 5. Standard CAT-5 Cable using pin 1 and pin 2 for RS-485 functionality (568A)



Switch 1 - OFF
Switch 2 - ON
Switch 3 - OFF
Switch 4 - ON

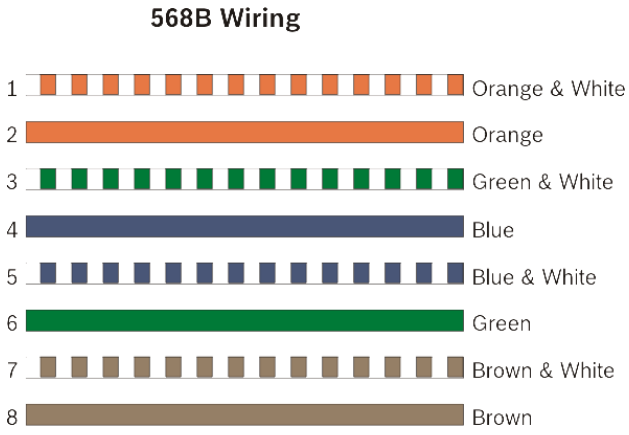


FIGURE 6. Standard CAT-5 Cable using pin 7 and pin 8 for RS-485 functionality (568B)

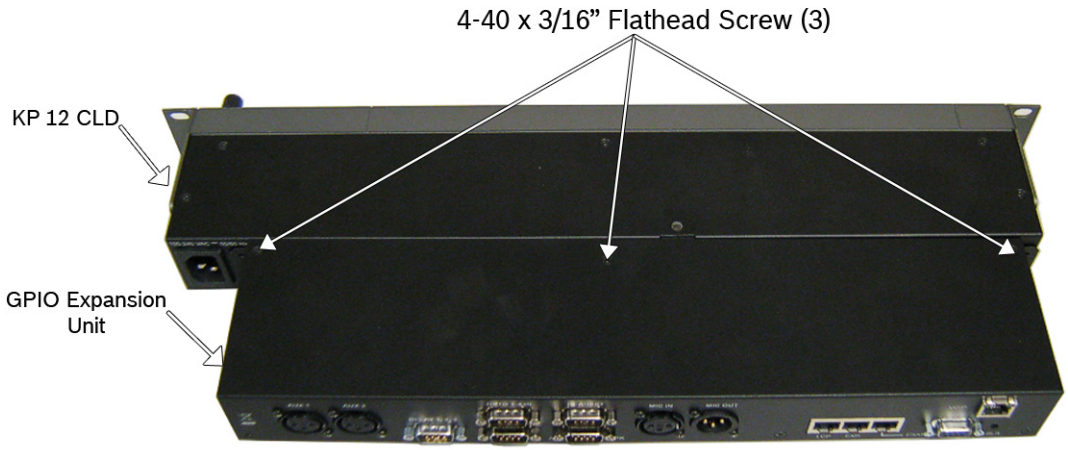
Accessing the Switch Bank on the KP 12 CLD Expansion Panel

Because the KP 12 CLD has a separate expansion panel, you must set the mode of operation dip switches within the expansion unit rather than the keypanel unit. Use the Switch Bank, shown in Figure 4, Figure 5, and Figure 6 to configure the mode of operation you desire:

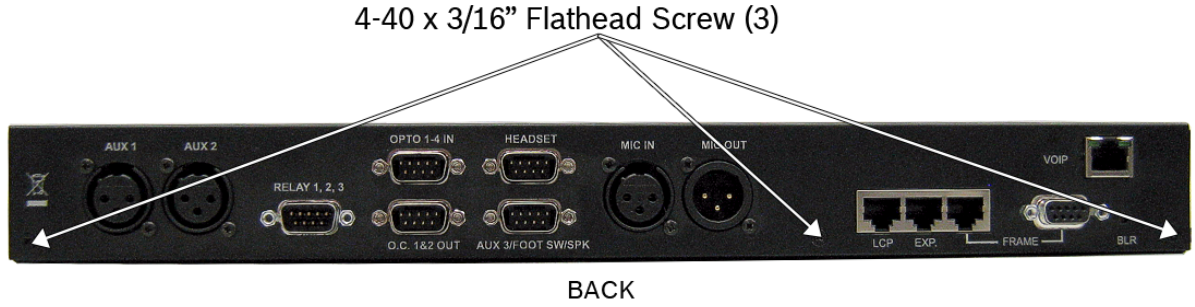
- USOC
- RS-485 using pin 1 and pin 2
- RS-485 using pin 7 and pin 8

To **access the switch bank**, do the following:

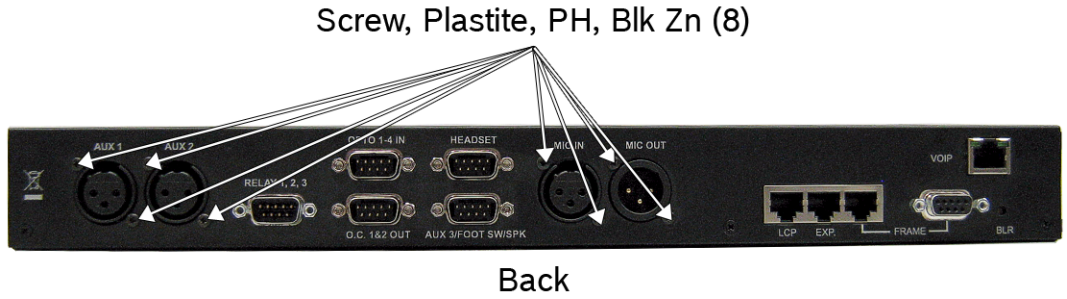
1. Remove the **three (3) screws** on the top of the unit.



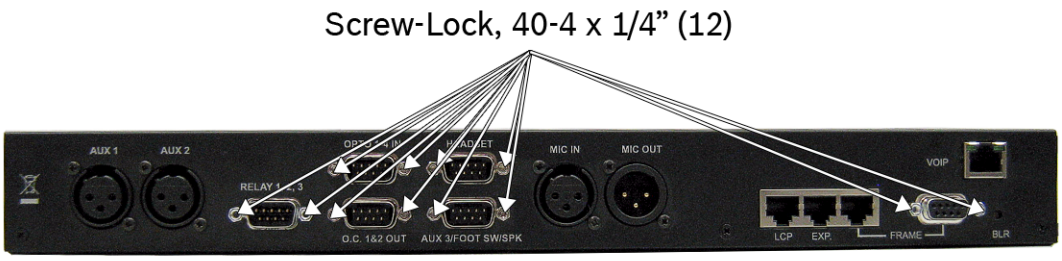
2. Remove the **three (3) screws** from the back panel of the KP 12 CLD expansion panel.



3. Remove the **XLR connector screws (8)**.

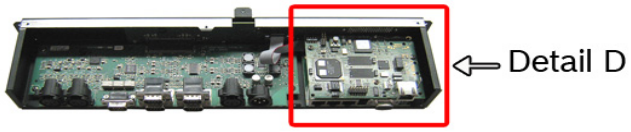


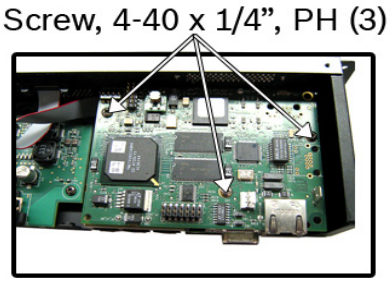
4. Using a 1/4” nut driver, remove the **DB-9 connector hex screws** (12).



Back

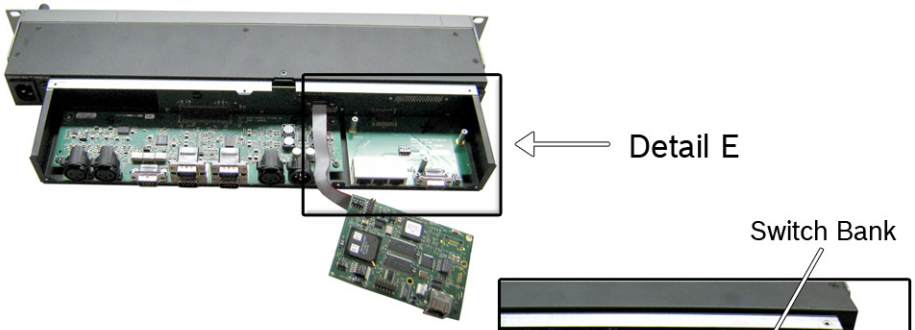
5. Carefully slide the top/back chassis to remove the **back panel**.
6. Remove the **RVON-2 board screws** (3), securing the RVON-2. (Optional)





Detail D

7. Remove the **RVON-2 board** and set it aside.



Detail E

8. Using a pen or screwdriver, set the **switches** to the type of operation you desire. For operation modes, see Figure 4, Figure 5, or Figure 6.

CHAPTER 2

Installation

Requirements

The following keypanel firmware versions are needed for the specified KP 12 CLD model:

KP 12 CLD .....1.0.1 or later

KP 12 CLD with RVON-2 option card.....1.0.1 or later

KP 12 CLD with OKI-2 option card..... 1.3.0 or later

KP 12 CLD Installation

NOTE: You can use only one (1) type of Frame connection to the Matrix at a time.

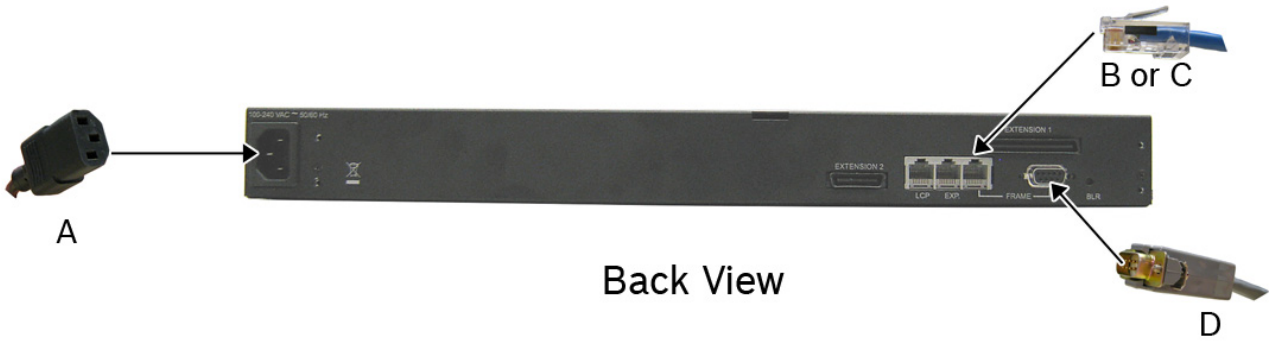


FIGURE 7. KP 12 CLD Installation

NOTE: To **install the GPIO Expansion Panel**, see “KP 12 GPIO Expansion Panel Installation” on page 29.

To **install the KP 12 CLD**, do the following:

1. Plug the **Power Cord** (A) into the power connector on the KP 12 CLD.
2. If required, set the **keypanel address**.

   NOTE: For addressing information, see “Address Setting” on page 31 and “Service Menu, Set Address” on page 143.
3. Connect an **RJ-11 cable with RTS cabling** (B)
   OR
   Connect an **RJ-45 cable with RTS cabling** (C) to the frame connector (see Figure 7).
   OR
   Connect a **DB-9 cable** (D) to the DB-9 frame connector (see Figure 7).

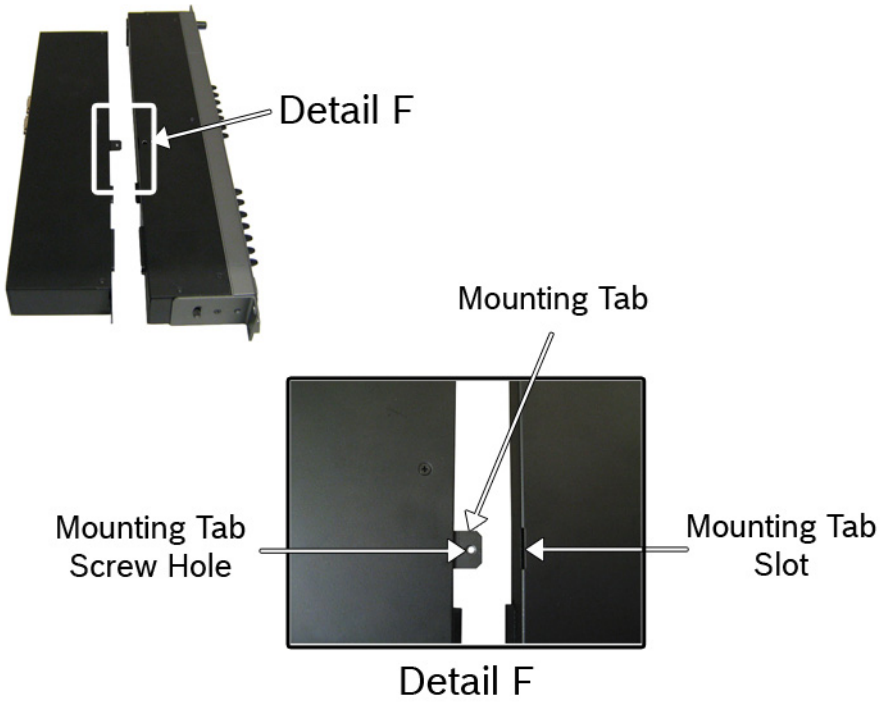
   NOTE: For pinout information, see “Connector Pinouts” on page 16.
4. Using the KP 12 CLD and AZedit, configure your **keypanel** for operation.

KP 12 GPIO Expansion Panel Installation

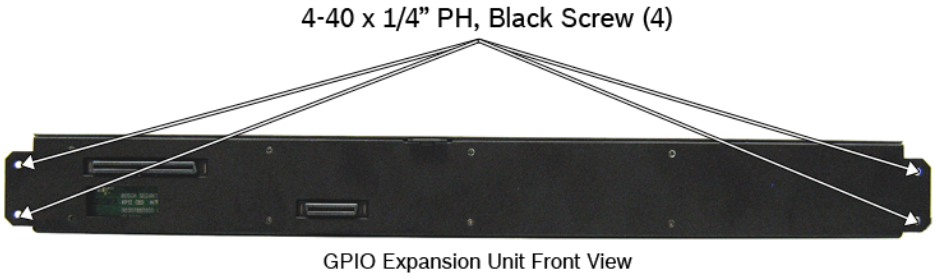
To **install the KP 12 CLD GPIO Expansion Panel**, do the following:

1. Align the **mounting tab** found on the front of the KP 12 CLD expansion panel with the mounting tab slot located on the rear of the KP 12 CLD unit.

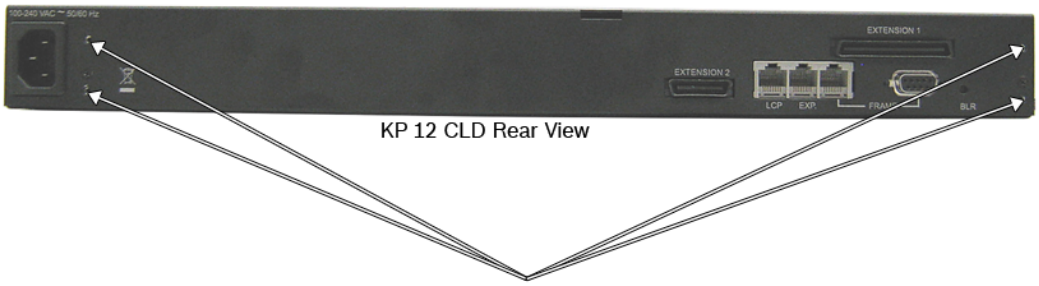
CAUTION: Do not attach the KP 12 CLD expansion panel with the supplied screw until the unit is attached on the sides. Attaching the unit prematurely may cause the expansion panel tab to bend or be damaged. Continue to step 2.



2. Using the screws provided, attach the **KP 12 CLD expansion panel** to the rear panel of the KP 12 CLD unit.



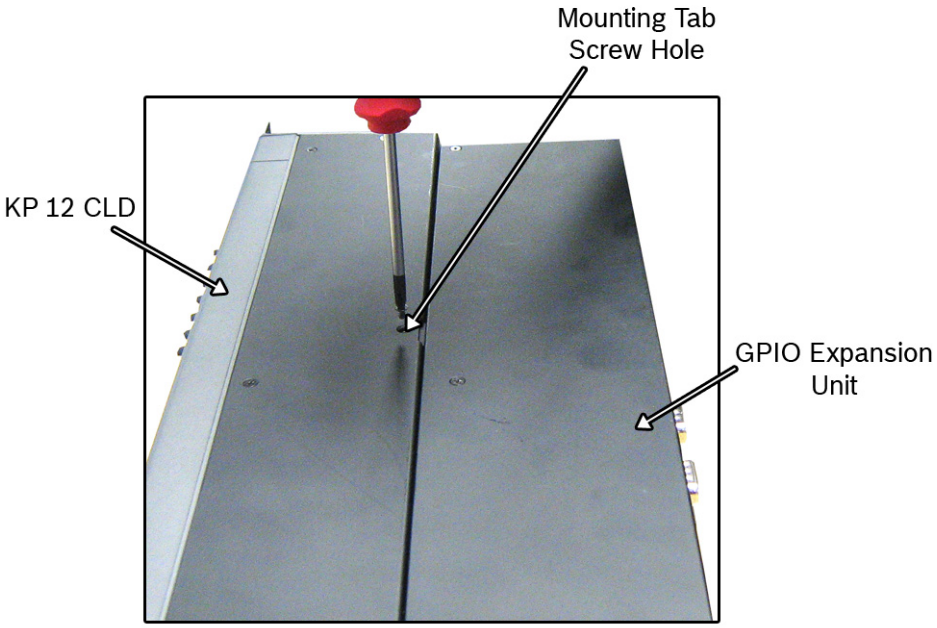
GPIO Expansion Unit Front View



KP 12 CLD Rear View

GPIO Expansion Unit Attachment Points

3. Using the screw provided, attach the **mounting tab to the mounting tab slot**.



Power Up

NOTE: The power supply accepts 100–240VAC, 50/60Hz.

At power-up, if the keypanel is connected to the matrix, the alphanumeric display shows dashes in the light blue color key - - - -. After several seconds to one (1) minute, the intercom key assignments display with the appropriate color keys and alphas.

NOTE: If the keypanel cannot establish communications with the intercom system, all alphanumeric displays continue to show asterisks and the *Disconnected from Matrix* icon DISCONNECTED FROM MATRIX appears in the display. Check the keypanel to matrix cable connection if this occurs. If the keypanel loses communications with the intercom, the display shows the Disconnected from Matrix icon and displays the **** after approximately 30 seconds.

Address Setting

General Information

In ADAM AIO-8, ADAM CS, and Zeus intercom systems, intercom ports are arranged in groups of eight (8). All ports in a group share a common data port. Each keypanel is uniquely identified on the data port by its address. The method of determining the proper address varies for each intercom system. Use the method for your intercom system, as described on the following pages.

TABLE 1. KP 12 CLD Addressing

Manually Addressed	Automatically Addressed
You must manually address[a] the keypanel when using the following: • AIO-8 on ADAM • AIO-16 SCSI on ADAM • ADAM CS • Zeus I • Zeus II	The keypanel is automatically addressed when using the following: • AIO-16 MDR on ADAM • ADAM-M • Cronus • RVON Products - RVON-8, RVON-1, RVON-C, and RVON-16. • Zeus III **NOTE:** Keypanels using RVON-I/O may need to be individually addressed. See the RVON-I/O user manual (F.01U.193.280) for further instruction.

a. To manually address the KP 12 CLD, see “Service Menu, Set Address” on page 143.

REFERENCE:

- ADAM with AIO-8 cards, see the ADAM installation user manual (P/N F.01U.261.249 found at http://www.rtsintercoms.com).
- ADAM CS, see the ADAM CS Installation user manual (P/N 93307515000 found at http://www.rtsintercoms.com).
- ADAM and ADAM-M with AIO-16 cards, see the AIO-16 manual (P/N F.01U.193.267 found at http://www.rtsintercoms.com).
- Cronus, see the Cronus user manual (P/N F.01U.118.890 found at http://www.rtsintercoms.com).
- Zeus III, see the Zeus III user manual (P/N F.01U.193.289 found at http://www.rtsintercoms.com).
- Zeus III LE/LE+, see the Zeus III LE/LE+ user manual (P/N F.01U.193.290 found at http://www.rtsintercoms.com).

NOTE: If you are connecting to an ADAM or ADAM-M frame with AIO-16 cards or a Cronus frame, you do not need to set the address, it is done dynamically.

Connections

Frame Connector

Use either of the Frame connectors (but not both) to connect to an intercom port of the intercom system. For frame connector locations, see Figure 3 on page 15. The intercom port you connect to should agree with the address you set previously.

Headset Connector

A stereo headset may be connected to the front of the unit (or rear, with optional KP 12 CLD expansion panel installed) for use along with or in place of the front/rear panel speaker and a separate microphone. Headphones may be connected for use with a separate microphone.

Panel Microphone Connector

A panel microphone may be connected to the front (or rear, with optional KP 12 CLD expansion panel installed) of the unit for talking with either the front/rear panel speaker or headphones used for listening. The connector accepts MCP-5, MCP-6, or MCP-90 series panel microphones. Insert the microphone and rotate the entire microphone body several turns to lock in place.

Footswitch Connector

A 6- or 7-pin headset connector may replace the standard 4- or 5-pin headset connector to include a front footswitch to the front panel of the KP 12 CLD, in place of the headset connector.

CHAPTER 3

Basic Operation

Intercom Keys and Displays

Color Display Descriptions for Intercom Keys

The KP 12 CLD display uses key colors to distinguish the type of key assignment assigned to the key. Use Table 2, Default Key Colors, to help you determine the available key assignment colors.

TABLE 2. Default Key Colors

Color Swatch	Default Color	Description
	Amber	Waiting for Footswitch
	Bright Green	Listen Indicator, Local Matrix
	Brown	IFB Special List
	Teal	Point-to-Point
	Dark Yellow	ISO
	Light Blue	Unassigned, Test Mode (with talk/listen indicators)
	Pale Yellow	Special Functions
	Magenta	Relay
	Pink	Party Line
	Red	Remote Matrix
	Salmon	IFB, Talk Indicator
	Pale Green	Special List
	Periwinkle	UPL Resource

Display Icons

Display Icons are used to indicate the accessories and features enabled, disabled, active, and inactive. Use Table 3 for a complete description of each icon seen on the KP 12 CLD.

TABLE 3. Display Icon Descriptions

Icon	Icon Name	Description
	Matrix Connected	The keypanel is connected to the Matrix. This icon briefly displays at connection.
	Disconnected From Matrix	There is no connection between the Matrix and the keypanel.
	Firmware Download	The firmware is being downloaded to the keypanel. The progression bar displays the following: • chunk progress (Orange) • overall progress (Amber) • chunk and overall progress (Gray) **NOTE:** For more information, see “Download Firmware to the Color Keypanel Family From AZedit” on page 59.
	Footswitch Active	The footswitch is active.
	Footswitch Enabled	The footswitch is enabled, but not active. **NOTE:** When a talk key is latched while the Footswitch is enabled, the key display turns amber to signify that it is waiting for footswitch.
	Front Headphones	The front headphones are enabled. This indicates the front headset microphone is not enabled.
	Front Headset	The front headset is enabled.
	Front Headset Mic Muted	The front headset mic is muted.
	Front Microphone	The front microphone is enabled.
	Front Microphone Muted	The front microphone is muted. To mute the front microphone, see “Mute the Microphone/Speaker” on page 49. **NOTE:** A flashing mute icon appears on any active mics when the mic mute key is pressed. If tone is enabled, which disables mics, the mute icon appears on any active mic, but does not flash.
	Front Speaker	The front speakers are enabled. To enable the front speaker, see “Audio Options Menu, Speaker” on page 91.

TABLE 3. Display Icon Descriptions

Icon	Icon Name	Description
	Front Speaker Muted	The front speakers are muted. To mute the front speaker, see “Mute the Microphone/Speaker” on page 49.
	Rear Headphones	The rear headphones are active. This indicates the rear headset microphone is not enabled. To activate the rear headphones, see “Audio Options Menu, Headset Spkr” on page 82.
	Rear Headset	The rear headset is active.
	Rear Headset Muted	The rear headset mic is muted.
	Rear Microphone	The rear microphone is active. To activate the rear microphone, see “Audio Options Menu, Panel Mic” on page 89.
	Rear Microphone Muted	The rear microphone is muted. **NOTE:** A flashing mute icon  appears on any active mics when the mic mute key is pressed. If tone is enabled, which disables mics, the mute icon appears on any active mic, but does not flash.
	Rear Speaker	The rear speaker is active. To activate the rear speaker, see “Audio Options Menu, Speaker” on page 91.
	Rear Speaker Muted	The rear speaker is muted. To mute the rear speaker, see “Mute the Microphone/Speaker” on page 49.
	Both Headphones	Both front and rear headphones are enabled. This indicates the both the front and rear headset microphones are disabled. To enable the front headphones, see “Audio Options Menu, Headset Spkr” on page 82.
	Both Headsets	Both front and rear headsets are active.
	Both Headsets Muted	Both front and rear headset mics are muted.
	Both Microphones	Both front and rear microphones are enabled.
	Both Microphones Muted	Both front and rear microphones are muted. To mute the front microphone, see “Mute the Microphone/Speaker” on page 49. **NOTE:** A flashing mute icon  appears on any active mics when the mic mute key is pressed. If tone is enabled, which disables mics, the mute icon appears on any active mic, but does not flash.

TABLE 3. Display Icon Descriptions

Icon	Icon Name	Description
	Both Speakers	Both front and rear speakers are enabled. To enable the front speaker, see “Audio Options Menu, Speaker” on page 91.
	Both Speakers Muted	Both front and rear speakers are muted. To mute the front speaker, see “Mute the Microphone/Speaker” on page 49.
	Snoop Tally Active	Snoop Tally is Active on the keypanel. You must have the Hot Mic enabled to use snoop tallies. To enable snoop tallies, see “Service Menu, Snoop Tally” on page 144.
	Hot Mic	The hot mic is active. To activate Hot Mic, see “Audio Options Menu, Outp Level” on page 88.
	Tone 1kHz Enabled	Tone 1kHz is enabled on the keypanel. To enable tone 1kHz, see “Audio Options Menu, Tone Gen” on page 92.
	Tone 500Hz Enabled	Tone 500Hz is enabled on the keypanel. To enable tone 500Hz, see “Audio Options Menu, Tone Gen” on page 92.
	Main Volume Bar	The main volume bar is used to control the volume for the keypanel inputs and outputs, including all speaker and headset outputs, and matrix and aux inputs. If the volume of a speaker or headset is turned down to mute, the mute icon appears on the speaker or headset. **NOTE:** If both the front and rear speaker or headset are enabled, the mute icon only appears if both the front and rear volumes are in the mute position.
	User Volume Bar	The user volume bar is used to control the listen gain on a per key level. The listen gain range is *+6dB* to *-80db*, or *Mute*. **NOTE:** Listen must be assigned on the key assignment for this function to operate.
	OMNEO Enabled	OMNEO is enabled on the CLD panel. For more information, see “Menu System, OMNEO Offers (Only available with OKI option card installed)” on page 119.
	OMNEO Disabled	The OMNEO is disabled on the CLD panel. For more information, see “Menu System, OMNEO Offers (Only available with OKI option card installed)” on page 119.
	RVON Enabled	RVON is enabled on the CLD panel. For more information, see “Menu System, RVON Offers (Only available with the RVON-2 option card installed)” on page 121.
	RVON Disabled	RVON is disabled on the CLD panel. For more information, see “Menu System, RVON Offers (Only available with the RVON-2 option card installed)” on page 121.
	Virtual Key Assignment	Keys are active on a virtual keypanel that are not being displayed. For more information, see “Key Options Menu, Panel Swap” on page 113. **NOTE:** A talk or listen bar (or both) displays to indicate which type of virtual keys are active.

Standard Keypad

There are two (2) different keypad sequences you can apply to the KP 12 CLD unit, the Standard keypad sequence and the Classic keypad sequence. See “KP 12 CLD Keypad Quick Reference” on page 155 to view the Keypad Sequence Quick Reference.

To **select the desired keypad sequence**, do the following:

1. On the KP 12 CLD, press the **MENU** button.
   The top-level menu appears.
2. Using the arrow keys, scroll to **Service**.
3. Press the **SEL** button.
   The Service menu appears.
4. Using the arrow keys, scroll to **Keypad**.
5. Press the **SEL** button.
   Backlight, SEL key, and Sequences appear in the display.
6. Verify **Sequences** is highlighted.
7. Press the **SEL** button.
   Classic and Standard appear in the display.
8. Using the arrow keys, select the **keypanel sequence** you want to enable.
9. Press the **SEL** button.

KP 12 CLD Standard Keypad

NOTE:

- For information on Standard keypad sequences, see “Default Keypad Sequence” on page 158.
- For information on the Classic Keypad, see “Classic Keypad Sequence” on page 156.

KEYPAD BUTTON	DESCRIPTION[a]
MENU button	The MENU button is used to access the top-level menu structure. > Press the **Menu** button once. *The top-level menu appears in the display.* **NOTE:** If the keypad backlight is set to Activate (*Service|Keypad|Backlight*), you must press the Menu button twice to access the top-level menu.
FWD button	The FWD button moves you forward through the menu option highlighted. For example, if Display is highlighted in the display and FWD is pressed, the second level of the display menu appears.
BACK button	The BACK button moves you backward, one (1) level, through the menu structure. **NOTE:** If you are at the top-level of the menu structure and press BACK, you cannot move back any further.
UPG button	The UPG button is used to assign a frequently used menu item. This allows users to access the menu item quickly. UPG buttons can also be programmed to trigger GPI outputs and panel swap events.
LOC (1) button	The LOC (1) button displays the list of available intercoms (LOCations) available to scroll from. Select an intercom name to access the scroll lists fro that intercom.
TYPE (4) button	The TYPE (4) button displays the keypanel type assignments available for use.
COPY (7) button	The COPY (7) button is used to copy an incoming call key assignment from the CWW to a specific keypanel key. For example, if caller THRE calls the keypanel, and there is no keypanel key assigned, THRE appears in the DWW window in the keypanel display. If the keypanel operator wants to assign the call (THRE) a key, use the COPY (7) key on the keypad, and then tap the keypanel key where THRE is to be assigned. **NOTE:** You can also copy from key to key by pressing COPY/SEL, and then tapping the source key and target key.

CLR/DROP (*) button	The CLR/DROP (*) button is used to clear the CWW window or exit out of the menu structure. If the CLR/DROP button is pressed when in TIF mode, it hangs up the TIF connection. To access the DROP function, press PHONE (0), then DROP (or DIAL). The DIAL/DROP menu item appears. You use the menu normally, or use the DROP or DIAL keypad keys directly.
↑↑ (2) button	The ↑↑(2) button is used to page UP through available key assignments or menu options.
↓↓ (5) button	The ↓↓ (5) button is used to page DOWN through available key assignments or menu options.
PAGE (8) button	The PAGE button is used to access a different setup page. You can configure up to 15 pages in the intercom system. The default number of pages is four (4). To configure the number of pages available, use the Intercom Configuration window, on the Options page. To **change setup pages using the keypad**, do the following: > Press **0, 8, <page>**, depending on the setup page you want to view.
PHONE (0) button	The PHONE (0) button accesses the TIF DIAL or DROP menu.
↑ (3) button	The ↑ (3) button moves you backward through the menu structure or available key assignments one at a time. When in the MENU mode, pressing the ↑ (3) button moves you backward through the menu option highlighted.
↓ (6) button	The ↓ (6) button moves you forward through the menu structure or available key assignments one (1) at a time. When in the MENU mode, pressing the ↓ (6) button moves you forward through the menu structure.
INFO (9) button	The INFO (9) button displays commonly used menu items in a side scroll list. Using the ↑ (3) and ↓ (6) buttons, you can scroll through the list of options available. When a selection is highlighted, press the SEL button to navigate down one level in the menu structure. By default, the INFO (9) list contains the following options: *Id, Lev2, Lstn, Name, Type, Mtx, Tone, Page, VRst, Asgn, Test,* and *Ver.* **NOTE:** For more details about the INFO button, see “INFO Button” on page 40.
SEL/DIAL (#) button	The SEL/DIAL (#) button is used to select options highlighted in the menu structure. The SEL/DIAL (#) button, when in TIF mode, is used to dial out from the keypanel.

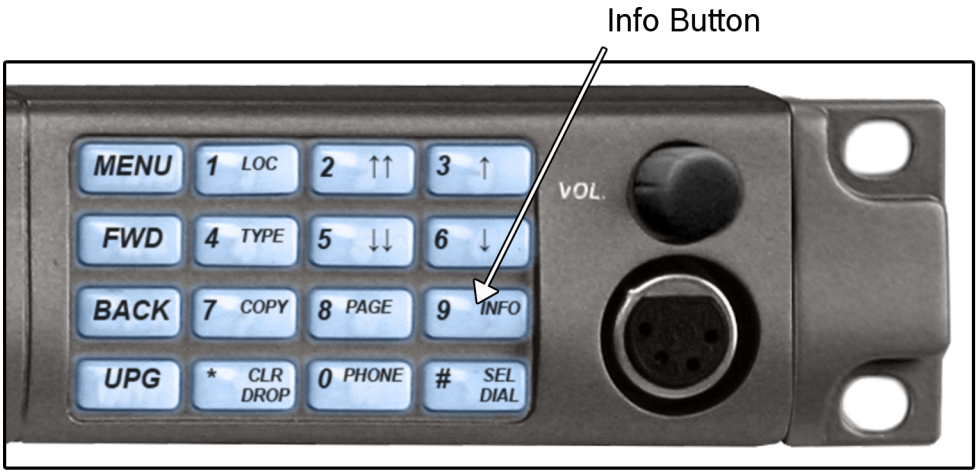
a. The numbers in parentheses represent the keypad keys.

INFO Button

IMPORTANT:

The **INFO** button is used to access commonly used features and configuration options for the KP 12 CLD. These include the following:

TABLE 4. INFO Button Feature and Option Descriptions



FEATURE	DESCRIPTION
Id	Displays the port ID where the keypanel is located.
Lev 2	Displays the Level 2 key assignments on the keypanel.
Lstn	Displays the listen key assignments on the keypanel.
Name	Displays a list of current callers to the keypanel.
Type	Displays the assignment types of all the configured keypanel keys.
Mtx	Displays the Matrix system of each key assignment.
Tone	Opens the Tone Generator menu. For more information, see “Audio Options Menu, Tone Gen” on page 92.
Page	Displays the current page visible on the keypanel.
VRst	Opens the Key Volumes Reset menu. For more information, see “Audio Options Menu, Key Volumes” on page 84.
Asgn	Displays all the other assignments on other keypanel pages not currently showing.
Test	Enables the Test Panel feature. For more information, see “Service Menu, Test Panel” on page 144.
Ver	Displays the firmware version currently loaded on the KP 12 CLD. For more information, see “Display Menu, Version” on page 99.

Intercom Key Operation

Basic Intercom Key Operation

Coupled with the traditional operation of keys, the KP 12 CLD keypanel also has an integrated **LCP** (Level Control Panel). This feature allows the user to adjust the volume for individual keys on the keypanel. Figure 8 displays the different key positions and their meanings.

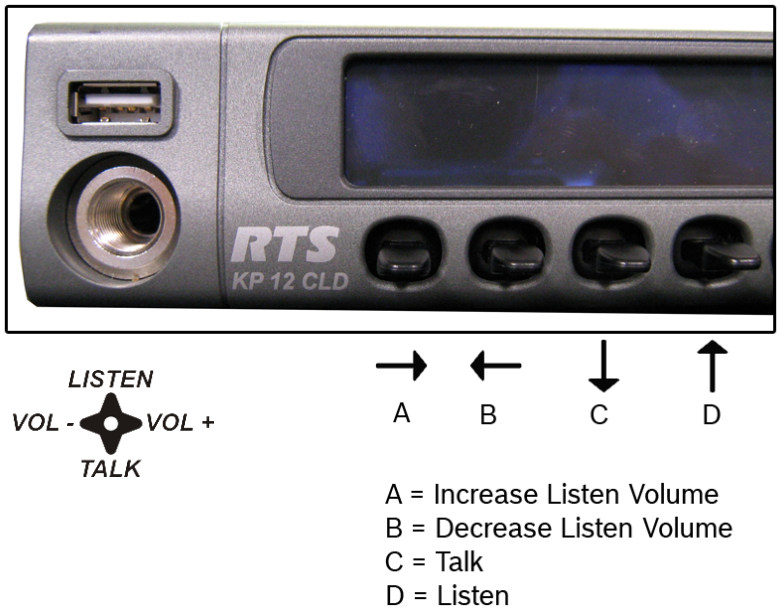


FIGURE 8. KP 12 CLD Key Position Explanation

Talk/Listen Indicator

The **Talk/Listen Indicator**, shown in Figure 9, displays a visual indicator when the talk and/or listen key is active. The talk and listen states of each key are represented by an LED-like horizontal bar at the bottom (talk) and top (listen) of each key.

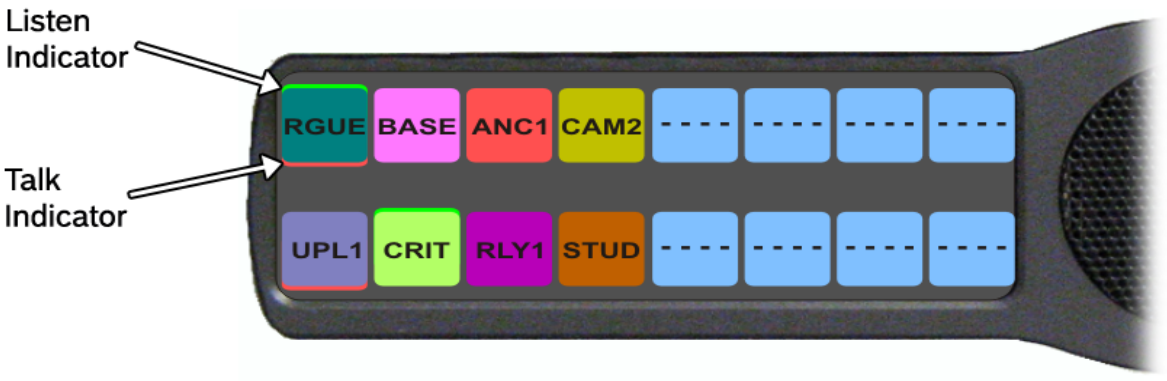


FIGURE 9. Talk / Listen Indicators

By default, the listen indicator is green and the talk indicator is red. You can change the colors of the indicator by using the key color window. For more information, see “Keypanel Color Window” on page 53.

Key Gain Adjustment

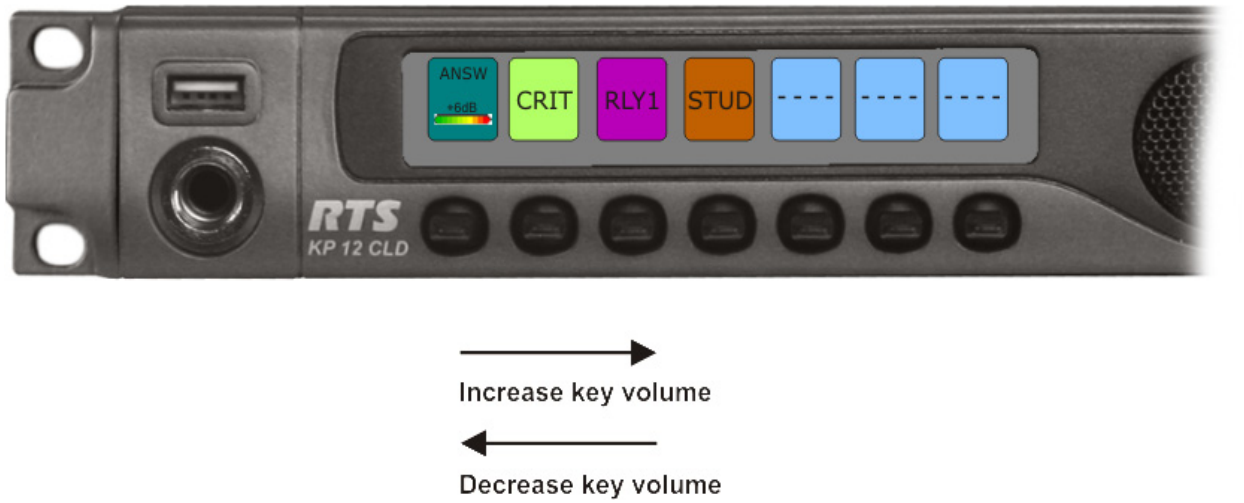
The **Key Gain Adjustment** is used to change the crosspoint listen gain on a specific key from the Matrix. This adjustment is automatically reflected in AZedit on the Crosspoint Gains window. (*System*|*Gains*|*Crosspoint*).

The range for this feature is *-80dB* to *+6dB*, and *Mute*.

NOTE: A listen assignment must be configured for key gain to be enabled on a keypanel key.

To **change key volumes**, do the following:

> Press the **keypanel key** to the right to increase the listen gain for the selected key assignment.
> OR
> Press the **keypanel key** to the left to decrease the listen gain for the selected key assignment.
> *A volume status bar ( ) and the volume level, in dB, appear on the specified key in the display.*



NOTE: For more information, see “Audio Options Menu, Max Volume” on page 86.

Listen Volume Adjustments

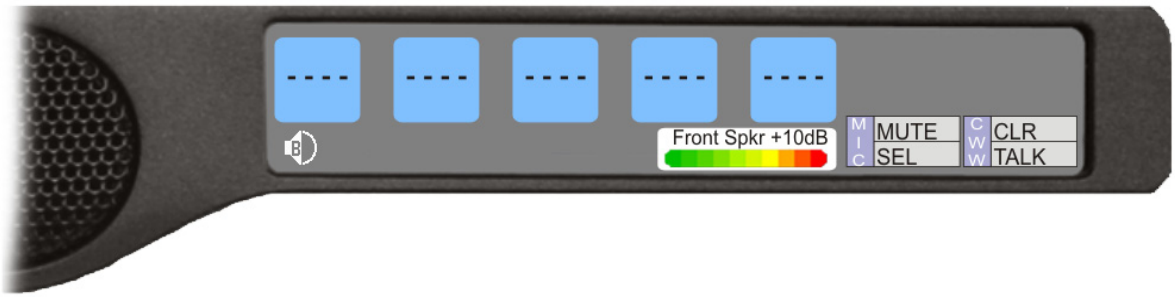
By default, the volume control adjusts the Listen Volume for the speaker (front/rear) or headset (front/rear), whichever is shown in the keypanel display.

Output Volume ranges from *+10dB to -48dB* and *Mute*.

To **adjust output volume level**, do the following:

> Turn the **VOLUME encoder** to the right to increase the volume for the listen destination.
OR
Turn the **VOLUME encoder** to the left to decrease the volume for the listen destination.

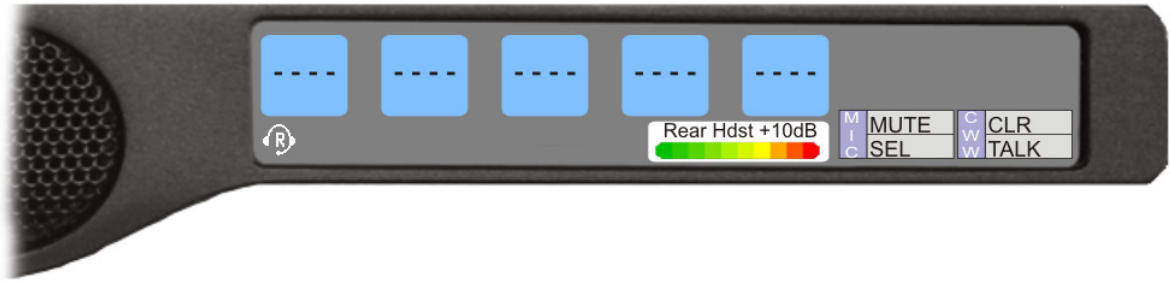
NOTE: When the MAIN VOLUME encoder is turned, the volume level bar appears in the display.



NOTE: You can save the volume adjustments to be power-up defaults using “Menu System, Save Config” on page 123.

To **select a different listen destination volume control**, do the following:

> Push the **VOLUME encoder** once.
The listen destination main volume focus switches to next listen destination shown, if applicable.



Aux Volume Adjustments

IMPORTANT: If no option cards are installed in the keypanel, AUX Volume adjustments are not available.

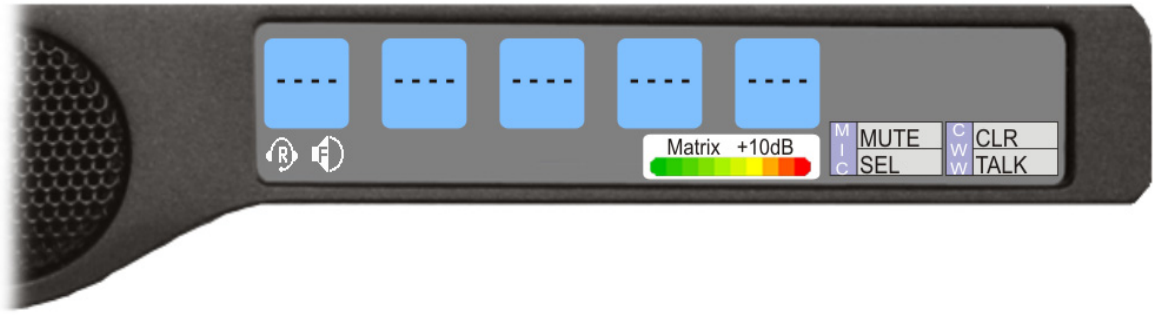
By default, the **Aux Volume** control adjusts the listen volume for the listen source, which includes Aux1-Aux3, RVON option card Channel 1, Channel 2, and Matrix IN.

Input volume ranges from *+10dB to -48dB* and *Mute*.

To **adjust listen volume level**, do the following:

> On the KP 12 CLD, turn the **shaft encoder** to the right to increase the volume for the selected input.
> OR
> Turn the **shaft encoder** to the left to decrease the volume for the selected input.

NOTE: When the VOLUME encoder is turned, the volume level bar appears in the display.

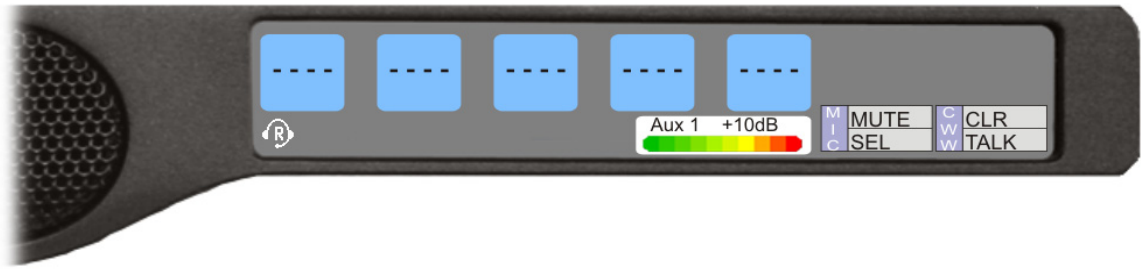


NOTE:

- You can save the volume adjustments to be power-up defaults using “Menu System, Save Config” on page 123.
- The audio sources appear in the Aux Volume menu if they are enabled (see “Mixing” on page 78). The volume encoder is enabled or disabled from the Aux/Mtx Inputs menu item (see “Service Menu, Aux/Mtx Inputs” on page 126).

To **change the focus of the volume control**, do the following:

> Push the **VOLUME encoder** once.
> *The aux volume focus switches to the next input shown, if applicable*.



Operation of Intercom Keys with Auto Functions

NOTE: Assignment of keys with auto functions is described in the following programming section.

Operation of keys with auto functions, is as follows:

Talk+auto follow	Talk and listen can be activated separately. The listen assignment listens to whichever assignment is assigned to the talk key.
Talk+auto listen	Talk and listen activate when talk is activated.
Talk+auto mute	Listen turns off when talk is activated.
Talk+auto reciprocal	Listen is always on and talk can be turned on or off.
Talk+auto table	If an IFB talk key has an auto table listen assignment, talk and listen is independently activated. The listen key listens to whatever is defined as the IFB Listen Source for the IFB assigned to the talk key.
All Call	Activating this key activates all keys to the left of it, up to, but not including another All Call key.
Talk+DIM	If a point-to-point key has the DIM function as a level 2 talk assignment, activating the key causes the crosspoint levels to diminish for any other intercom ports currently listening to the same destination and are in the same DIM tables.

Operation of Intercom Keys with Options

Group Option Keys

Activating the master key in a key group activates all keys in the group according to each key's individual key assignment. Activating a slave key does not affect any other keys in the group, see "Key Options Menu, Key Groups" on page 111.

Solo Key

Activating a key with the solo option causes all other keys to turn off until the solo key is turned off. For more information, see "Key Options Menu, Solo" on page 117.

Operation of Intercom Talk Keys with the Speaker DIM Setting

Activating any talk key causes the speaker or headphone volume at the keypanel to diminish by the amount specified in the Dim menu item on the Service menu, see "Audio Options Menu, Dim" on page 69.

NOTE: Do not confuse this with the Talk+DIM auto function previously described. Talk+DIM affects the speaker or headphones on other keypanels when a particular talk key is activated on the keypanel. Speaker DIM affects the speaker or headphone level on the keypanel when any talk key on the keypanel is activated.

Operation of Intercom Keys assigned to TIF Ports

If a keypanel key is assigned to talk on an intercom port designated as a TIF port in AZedit, placing the key in the talk position activates the KP 12 CLD dialing menu.

To **designate an intercom port as a TIF port**, do the following:

1. In AZedit, select the **port** you want to designate as a TIF port on the Keypanel/Port window.
2. Click **Edit**.
3. On the Advanced tab, select the **Port is TIF** check box.
4. Send the **change** to the intercom system.

User Quick Select Scrolling

User Quick Select Scrolling is a fast and easy way to call or assign a point-to-point key on the KP 12 CLD. The keypad and/or keypanel sequence chosen determines how this feature is used, see “Service Menu, Keypad” on page 129.

To **use the User Quick Select Scroll feature to call a user**, do the following:

NOTE: If you are using the default keypad, see “Default Keypad Sequence” on page 158.

1. On the KP 12 CLD keypad, press the **up or down arrow key** to scroll through the list of point-to-point connections available.
   The selected port is highlighted in white.

   NOTE:

   - You can also use arrow keys to page scroll through the list of ports available. Page scroll is useful when you have a large intercom system and you want to find a port quickly.
   - If you are using the Classic keypad, see “Classic Keypad Sequence” on page 156.

   TIP: To **enable page scroll using the Classic keypad sequence**, do the following:

   a. Press **5**.
   b. Use the arrow keys to page scroll.
      Page scroll is useful when you have a large intercom system and you want to find a port quickly.
   c. Press **PGM** to exit page scroll mode.

2. When the port is selected, press down on the **CWW key** to talk to the selected port.

Graphical Call Waiting Window

Traditionally, incoming calls have been displayed on key 12 on the keypanel, flashing to indicate an incoming call. With firmware version 1.1.1, the KP 12 CLD keypanel can keep a history of the last nine (9) callers and displays them in a scrollable, graphical window next to the right-most keypanel key. The CWW displays three (3) calls at a time (only two (2) in Kanji) with a scroll arrow appearing if there are more than three (3) calls in the list.

Firmware version 1.0.1 requires MCII-e version 2.1.0 or later.

FIGURE 10. Graphical Call Waiting Window

TABLE 5. Graphical CWW Call Descriptions

Item	Description
New Call	White background
Selected Call / Not Talking	Cyan background
Selected Call / Talking	Green background
Old Call	Gray background

Graphical Call Waiting Window Operation

Use Table 5 and Figure 10 to understand the different states of the CWW.

Display or Hide the CWW

To **display the CWW**, do the following:

> On the KP 12 CLD panel, press the **CWW key** up.
The graphical call waiting window appears.

To **hide the CWW**, do the following:

> Press the keypad **CLR** key.
The CWW closes.
OR
Press the **MENU** button.
The CWW temporarily closes and Menu mode is active. It stays hidden until menu mode is closed or times out (after one (1) minute).
OR
Rotate or press a **volume shaft encoder**.
The CWW temporarily closes while the volume display is shown.
OR
Enter **Page** mode (see “Standard Keypad” on page 37).
The CWW temporarily closes while page mode is active.

NOTE: If the CWW list is visible and not empty, it remains visible until hidden. If the CWW list is visible, but empty, it auto-hides after a five (5) second time-out.

Incoming Calls

When a call is received at the KP 12 CLD panel, the graphical CWW list appears on the keypanel display. Unlike the keypanel talley indicators in previous keypanel versions, the graphical CWW list appears on the keypanel display. Unlike the keypanel tally indicators in previous keypanel versions, the graphical CWW and the call flashes (tallies) rather than the CWW button.

Up to nine (9) calls can be stored in the CWW history scroll list. The most recent call is inserted at the top of the graphical CWW list (position 1) with a white background (see Figure 10). Other items in the CWW list are shifted down, as necessary. The ninth call in the list is dropped when a new call is received.

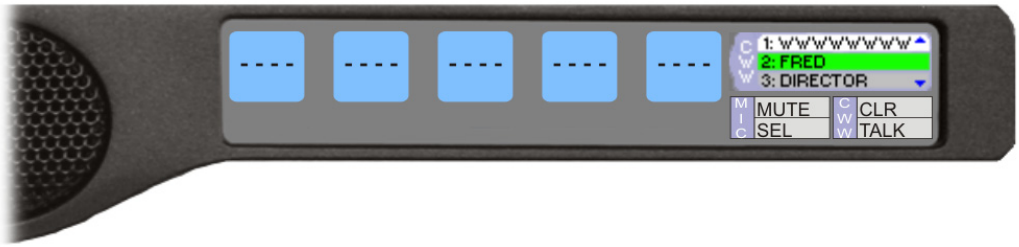


FIGURE 11. Graphical Call Waiting Window Highlighted Call

NOTE: A highlighted item in the graphical CWW cannot be shifted off the CWW list.

To **answer a call on the graphical CWW**, do the following:

1. Scroll the CWW to highlight the call you want to answer.
2. Press **down** on key 14.
The talk indicator bar appears on the key display and the assignment becomes visible on key 16
3. Start **talking** to the caller.
The highlight in the CWW list turns green when talking with the caller.
4. Press **up** on key 14.
The call is ended. The background of the caller in the CWW list turns a light gray (if not highlighted).

To **scroll the CWW list**, do the following:

> When the CWW list is visible, press the **arrow up** or **down** button.
The highlight moves through the scroll list.

Clearing the CWW List

To **clear the CWW history**, do the following:

1. If the CWW is not visible, press the **CWW key** to make it visible and the call selected.
2. Press the **CWW key** up once to remove the selected call.
3. Repeat **step 2**, as necessary.

Mute the Microphone/Speaker

Depending on the sources selected, as shown in the display, when the Mic Mute switch is pressed up, the corresponding feature is muted (shown with a mute icon overlaid on the feature icon). For Mic Mute location, see “Reference View - KP 12 CLD” on page 14.

NOTE: Figure 12 is a representation of what all the mute icons look like in the display. All muted icons cannot be viewed, as shown in Figure 20. See Table 6 on page 50 for information on when the various display icons appear relative to the configuration options specified.

FIGURE 12. All Muted Display Icons

NOTE: A flashing mute icon appears on any active mics when the mic mute key is pressed. If tone is enabled, which disables mics, the mute icon appears on any active mic, but does not flash.

Mic Select

Every mic (input) or speaker/headset (output) can be configured as Always On (or Enabled), Disabled, or Switched. Only mics, speakers, or headsets set to Switched are controlled by the MIC SEL key.

For more information, see

- “Audio Options Menu, Headset Mic” on page 80.
- “Audio Options Menu, Headset Spkr” on page 82.
- “Audio Options Menu, Panel Mic” on page 89.

TABLE 6. Source Configuration Matrix and Display icons

	ALWAYS ON/ENABLED	SWITCHED	DISABLED	ICON DISPLAYED
Panel Mic				
	Front and Rear			
	Front	Rear		 OR 
	Rear	Front		 OR 
	Front		Rear	
	Rear		Front	
			Front and Rear	No icons display on the keypanel.
Headset Mic				
	Front and Rear			
	Front	Rear		 OR 
	Rear	Front		 OR 
	Front		Rear	
	Rear		Front	
			Front and Rear	No icons display on the keypanel.
Speaker				
	Front and Rear			
	Front	Rear		 OR 
	Rear	Front		 OR 
	Front		Rear	
	Rear		Front	
			Front and Rear	No icons display on the keypanel.

TABLE 6. Source Configuration Matrix and Display icons

	ALWAYS ON/ENABLED	SWITCHED	DISABLED	ICON DISPLAYED
Headset				
	Front and Rear			
	Front	Rear		 OR 
	Rear	Front		 OR 
	Front		Rear	
	Rear		Front	
			Front and Rear	No icons display on the keypanel.

NOTE: All four (4) mics cannot be enabled at the same time. If three (3) mic sources are turned on, the rear panel mic is not available. For example, if the front panel mic, the front headset mic, and the rear headset mic are configured as Always On, the external panel mic is not available.

User Programmable Key

The **UPG** (User Programmable Key) gives you the option to assign frequently used menu items to a single key on the keypanel, eliminating the need to navigate through the menu structure. Not all menu items can be programmed to the UPG key, such as any assignment group menu, any TIF menu items, or scrolling menu items. Basically, any menu that requires context or history cannot be saved. If a menu item cannot be saved, a prompt appears in the display showing *Cannot save this menu position*.

NOTE: You can program a UPG key to activate the screen saver option on the keypanel. For more information, see "To activate the screen saver from a UPG key" on page 52.

The UPG key can also be used to activate relays. When a relay is assigned to the key, and while the keypanel is not in menu mode, pressing the UPG key activates the relay for as long as the UPG key is held down. Once the key is released, the relay becomes inactive.

To **assign a menu item to a UPG key**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Top Level menu appears.
2. Using the up or down arrow key, **navigate** to the menu item you want to assign to either UPG 1.
3. Press and hold the **UPG key** for two (2) seconds.
   Menu position saved appears in the display.

To **assign a relay to a UPG key**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Top Level menu appears.
2. Using the up or down arrow key, select **Service**.
3. Press **SEL**.
   The Service menu appears.
4. Using the up or down arrow key, select **Local GPIO**.
5. Press **SEL**.
   GPIO Inputs and GPIO Outputs appears in the display.
6. Using the up or down arrow key, select **GPIO Outputs**.
7. Press **SEL**.
   OC Out 1, OC Out 2, Relay 1, Relay 2, and Relay 3 appear in the display.
8. Using the arrow keys, select the **Relay 1, Relay 2,** or **Relay 3**.
9. Press **SEL**.
   Not Assigned, Talk Key, and UPG 1 appear in the display.
10. Using the up or down arrow key, select **UPG 1**.
    The relay is assigned to the desired UPG key.

    NOTE: Once a relay is programmed to the key, and the keypanel is not in menu mode, pressing the UPG key activates the assigned relay until the key is released.

To **activate the screen saver from a UPG key**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Top Level menu appears.
2. Using the up or down arrow key, select **Service**.
3. Press the **SEL** button.
   The Service menu appears.
4. Using the up or down arrow key, select **Scrn Saver**.
   Activate, Delay and Mode appear.

5. Using the arrow keys, select **Activate**.
6. Press **SEL**.
   The screen saver activates on the keypanel.
7. Press and hold for two (2) seconds the **UPG key**.
   Menu position saved appears in the display and the screen saver feature is assigned to the UPG key.

   NOTE: For information on clearing the UPG assignment, see “Key Options Menu, Clear” on page 110.

Keypanel Color Window

The **Keypanel Color** window in AZedit, shown in Figure 13, is used to change the color assigned to function types, key assignments, assignment groups and talk/listen indications. You can modify the colors of local intercom key assignments and function types, as well as remote intercom function type colors, giving you the flexibility to distinguish different systems through the use of color patterns.

The Keypanel Color window is only available when the following requirements are met:

- when using a CLD family keypanel (KP 32 CLD, DKP 16 CLD, KP 12 CLD, EKP 32 CLD) firmware version 1.1.1 is installed on the KP 32 CLD or v1.0.1 on the KP 12 CLD.

NOTE: Key colors are associated with assignment types, not the physical keys they are assigned to.

NAVIGATION: In AZedit, select System|Miscellaneous|Keypanel Colors.

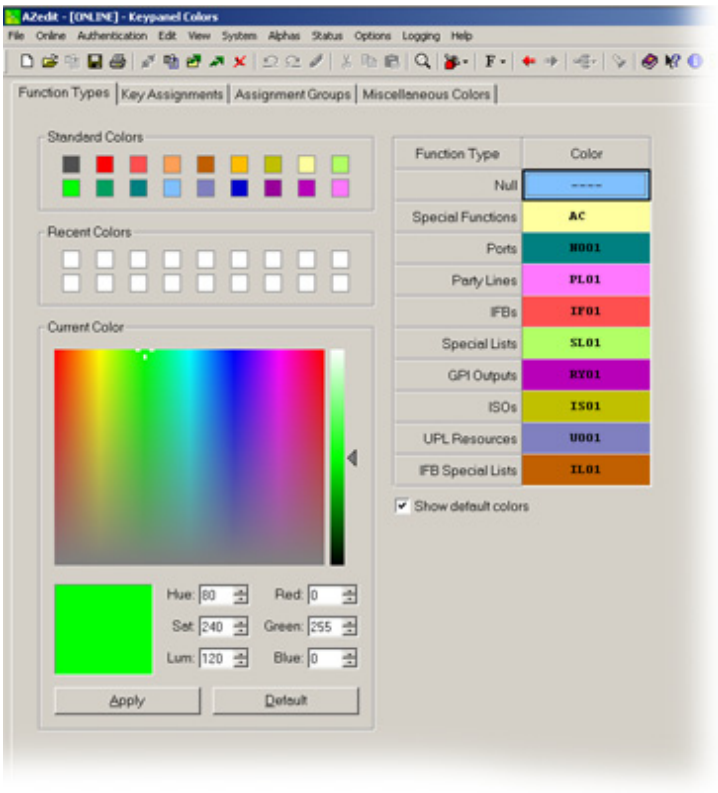


FIGURE 13. Keypanel Colors Window

Function Types Page

The **Function Types** page, shown in Figure 13, is used to change the default colors assigned to the various keypanel function types.

Select Intercom Drop Down Menu

The **Select Intercom** drop down menu is used to select the intercom system (local or remote) in which you want to change the color of the key function types.

Standard Colors Group Box

The **Standard Colors** group box displays 18 selectable colors you can use for function type color identification.

To **apply a standard color to a key assignment**, do the following:

1. From the Select Intercom drop down menu, select the **intercom system** you want to change the key function types for.
2. From the Color column in the right pane, select the **function color box** you want to change the color for.
3. From the Standard Colors group box, select the **standard color** you want to apply to the function.
   The color appears in the Current Color group box.
4. Click **Apply**.
   The Function Color box in the right pane changes to the selected color.

Recent Colors Group Box

The **Recent Colors** group box displays the 18 most recently used colors.

Current Color Group Box

The **Current Color** group box displays the currently selected color, whether from the color palette, standard colors, or recent colors. Also, using the Hue, Sat, Lum, Red, Green, and/or Blue spin boxes, you can tweak the selected color to create a more unique color for the function type.

Apply Button

The **Apply** button is used to apply the color selection.

Clear Button

The **Clear** button is used to clear the color selection and return to the default color.

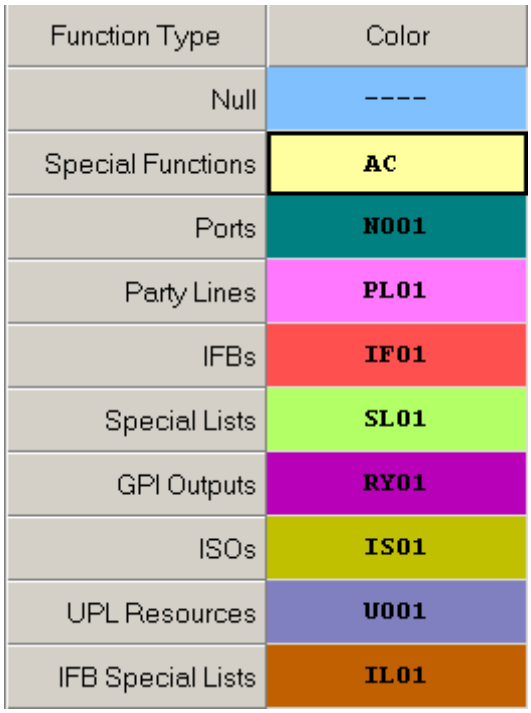


FIGURE 14. Function Type and Color Columns

Function Type Column

The **Function Type** column displays the different function types you can make key color changes for.

Available selections are: *Null, Special Functions, Ports, Party Lines, IFBs, Special Lists, GPI Outputs, ISOs, UPL Resources,* and *IFB Special Lists*.

Color Column

The **Color** column displays the current color assigned to the function type.

NOTE: You must select the current color box next to the function type you want to change the color for. When selected, a thick black line appears around the box.

Show Default Colors Check Box

The **Show Default Colors** check box, if selected, indicates the default colors assigned to the function types are shown. If not selected, colors are only shown for function types set to a color other than their default color.

Key Assignment Page

The **Key Assignment** page, shown in Figure 15, is used to change the colors assigned to the various assignment types. This means you can assign different colors to the individual function type resources. For example, you can change the display color for the party line assignment number 003.

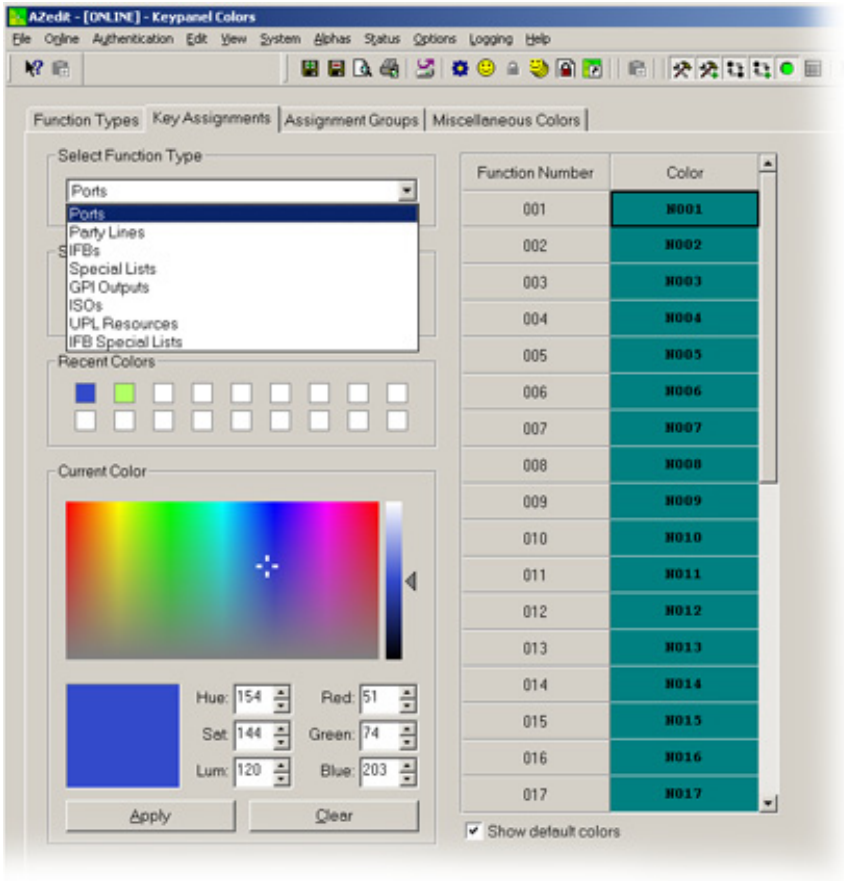


FIGURE 15. Key Assignments Page

Select Function Type Drop Down Menu

The **Select Function Type** drop down menu is used to select the function type you want to display the function number resources for.

Available selections for this field are: *Ports, Party Lines, IFBs, Special Lists, GPI Outputs, ISOs, UPL Resources,* and *IFB Special Lists*.

Function Number Column

The **Function Number** column displays the function numbers (resources available) you can modify the color of the assigned key for.

NOTE: Key colors are associated with assignment types, not the keys they are assigned to.

Color Column

The **Color** column displays the current color assigned to the function number.

NOTE: You must select the current color box next to the function number you want to change the color for. When selected, a thick black line appears around the box indicating it is selected.

Assignment Groups Page

The **Assignment Groups** page, shown in Figure 16, is used to change colors of the members of the different assignment groups.

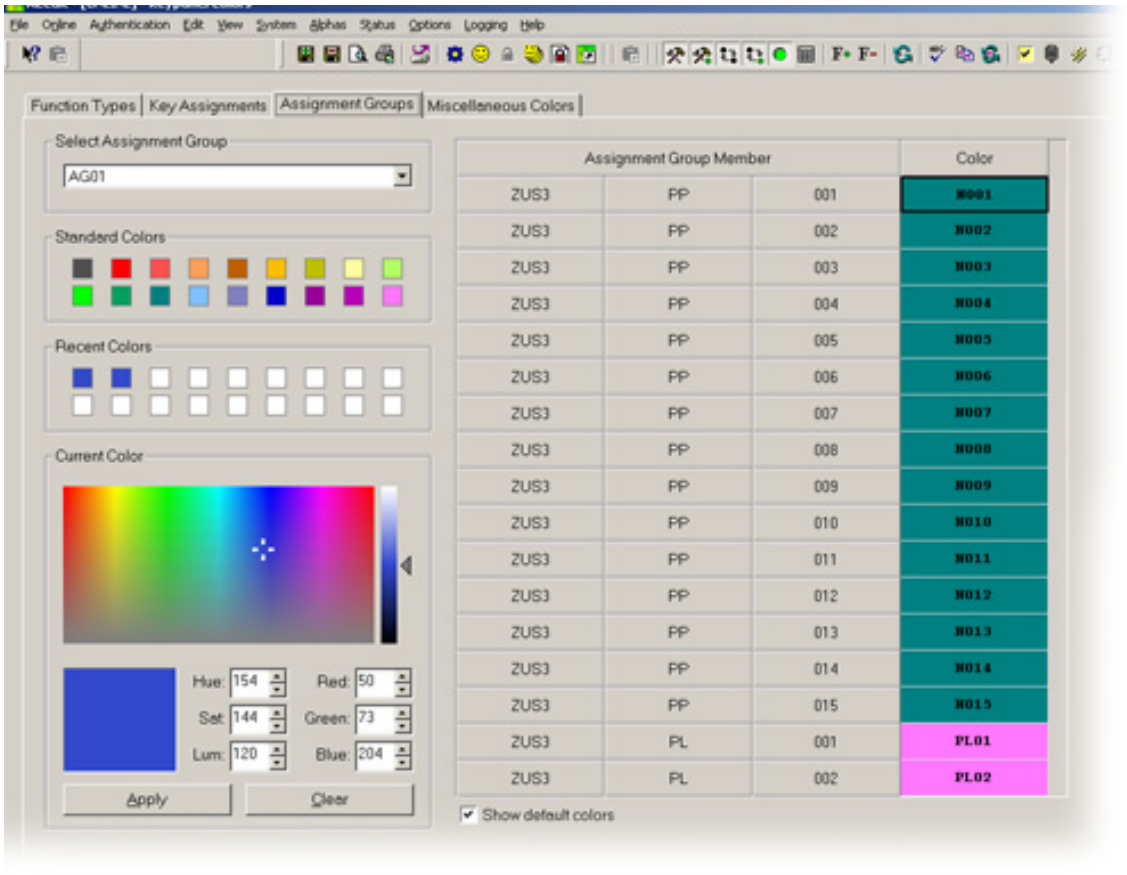


FIGURE 16. Assignments Groups Page

Select Assignment Group Drop Down Menu

The **Select Assignment Group** drop down menu is used to select the assignment group whose members you want to modify the key colors for.

Assignment Group Member Column

The **Assignment Group Member** column displays the members of the assignment group you select from the Assignment Group drop down menu. For more information, see “Select Assignment Group Drop Down Menu” on page 57.

Color Column

The **Color** column is used to select the assignment group member you want to modify the associated color with.

To **select the color column**, do the following:

> Click the **color box** next to the assignment group member.
A thick, black outline appears around the selected color box.

Miscellaneous Colors Page

The **Miscellaneous Colors** page, shown in Figure 17, is used to change the colors of the talk and listen indicators seen on the KP 12 CLD keypanel when talk and/or listen is activated.

For more information, see “Talk/Listen Indicator” on page 41.

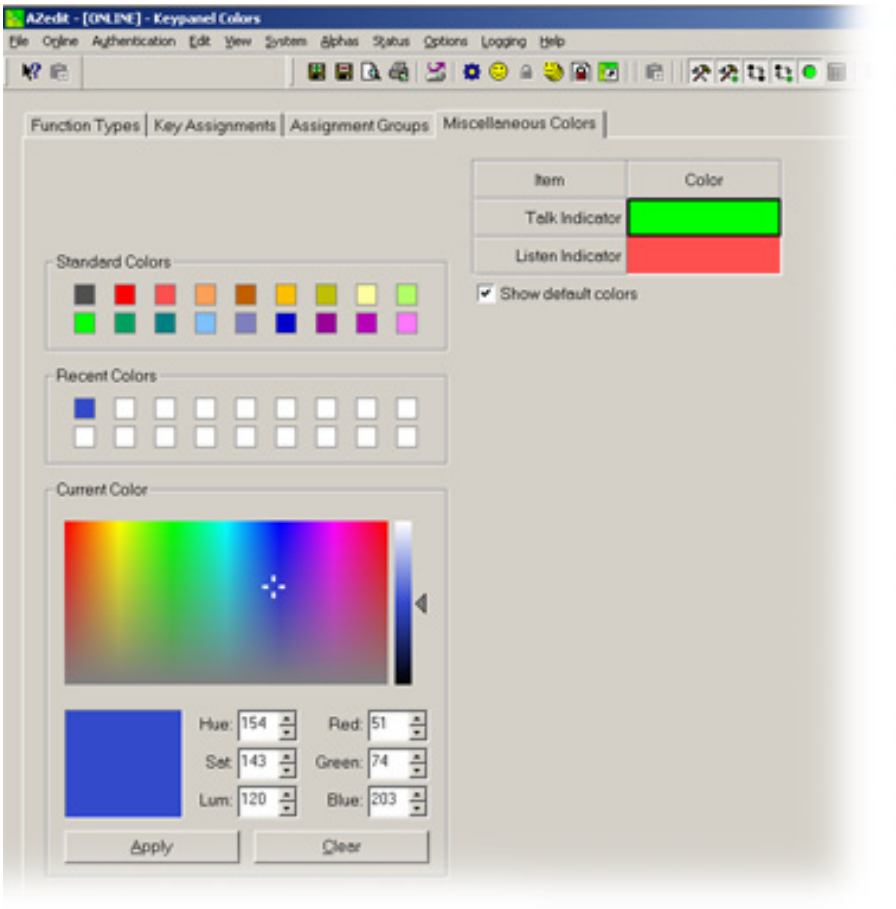


FIGURE 17. Miscellaneous Colors Page

CHAPTER 4

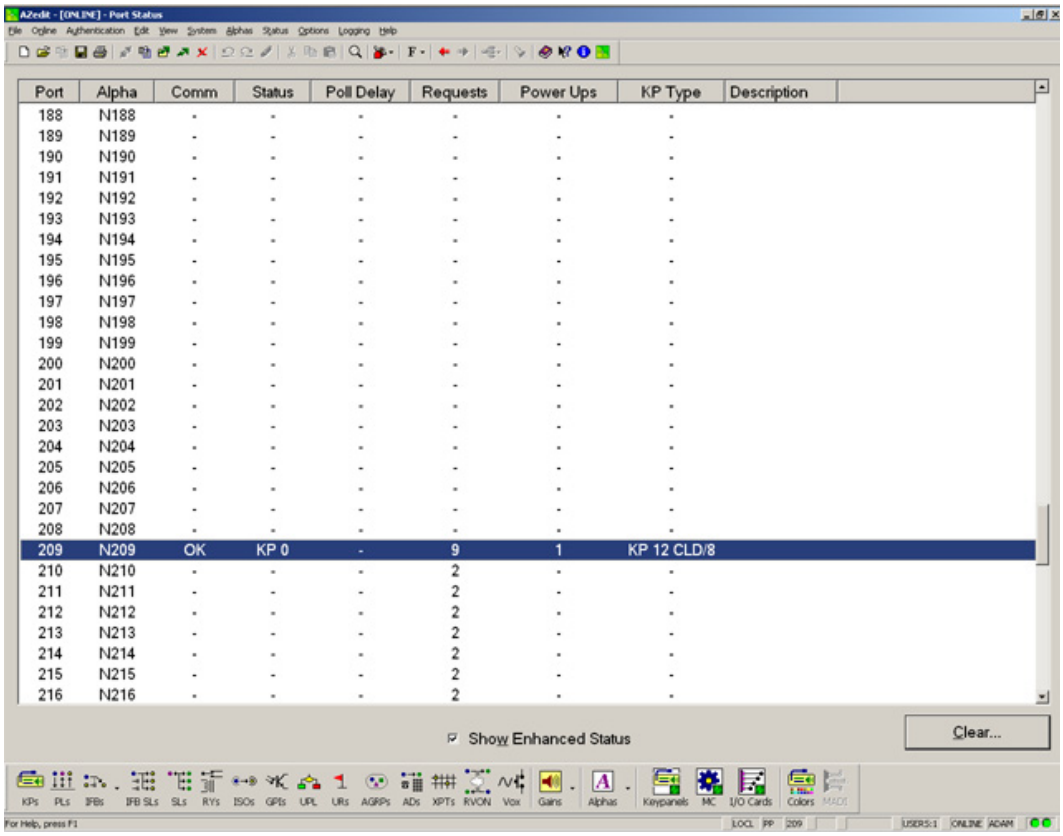
Firmware Download

NOTE: The instructions provided below are shown using the KP 12 CLD, but are applicable for all CLD family keypanels.

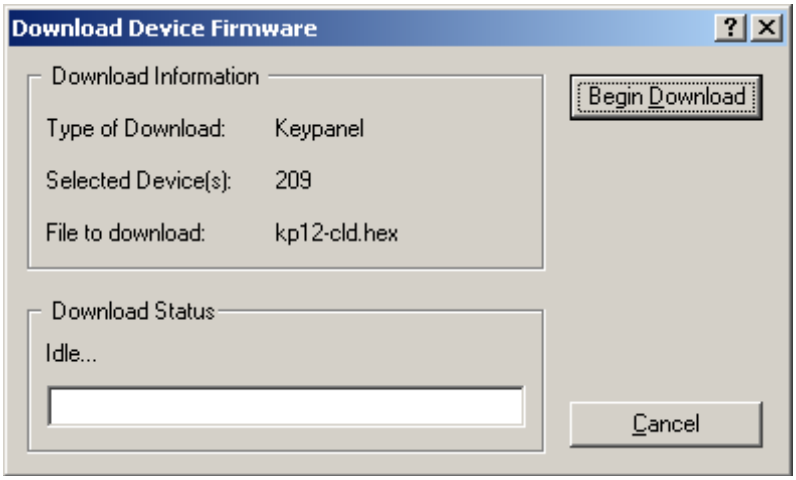
Download Firmware to the Color Keypanel Family From AZedit

To **download firmware to the keypanel**, do the following:

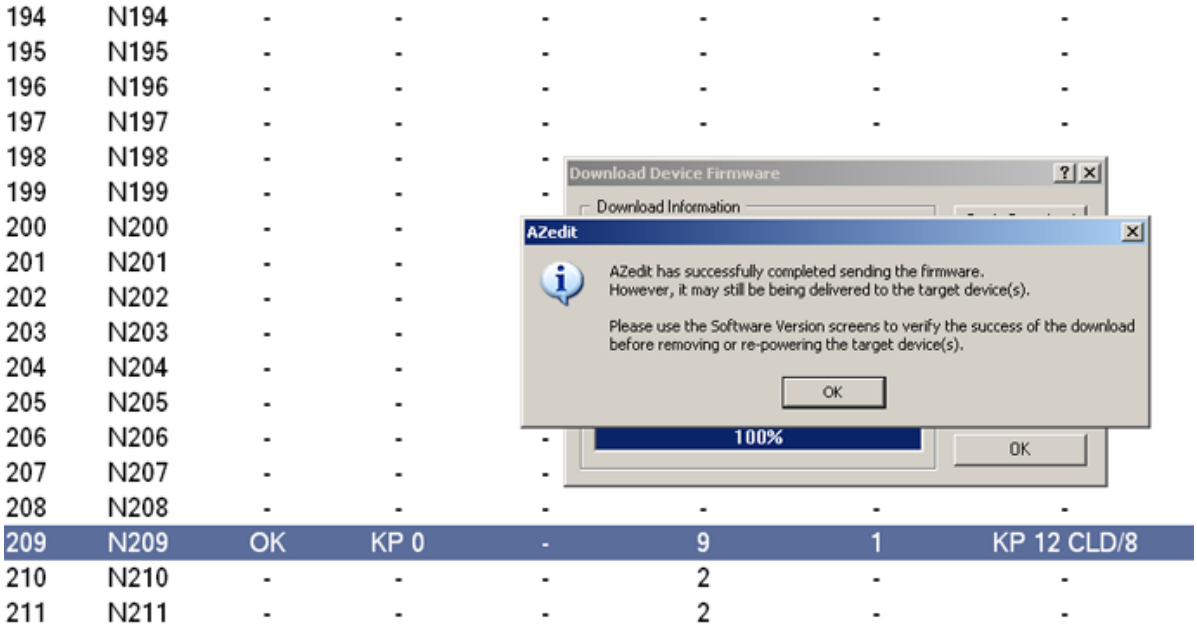
1. Open **AZedit**.
2. From the Status menu, select **Port**.
   The Port Status window appears.
3. Find the **port number** where the KP 12 CLD is assigned.



4. Highlight the **Port** (keypanel) to be updated.
   You may select more than one (1) at a time by holding Ctrl key down while you select.
5. Right-click the **highlighted selections** and select **Download Firmware**.
   The Firmware Download window appears.
6. Using the browse button, browse to the **file** to be downloaded.
7. Click **Open**.
   The Download Device Firmware window appears.



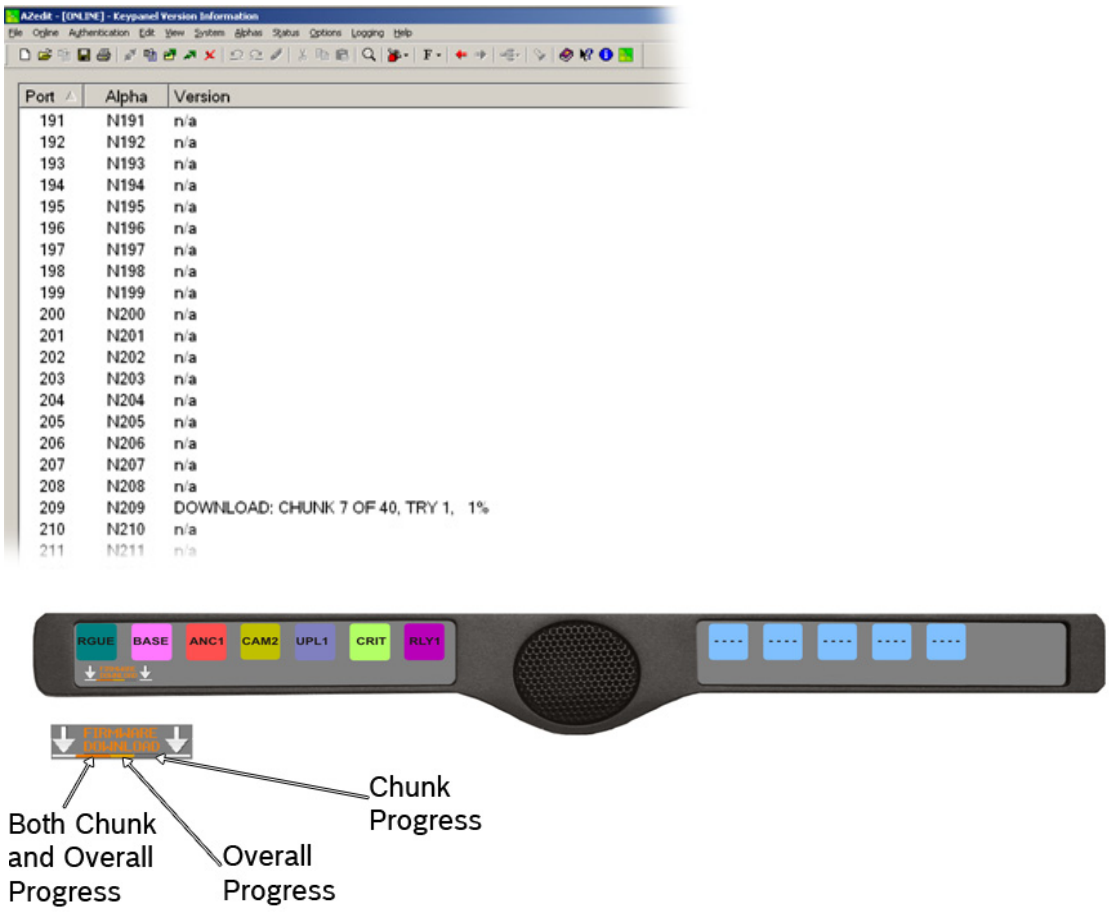
8. Click **Begin Download**.
   The download begins.



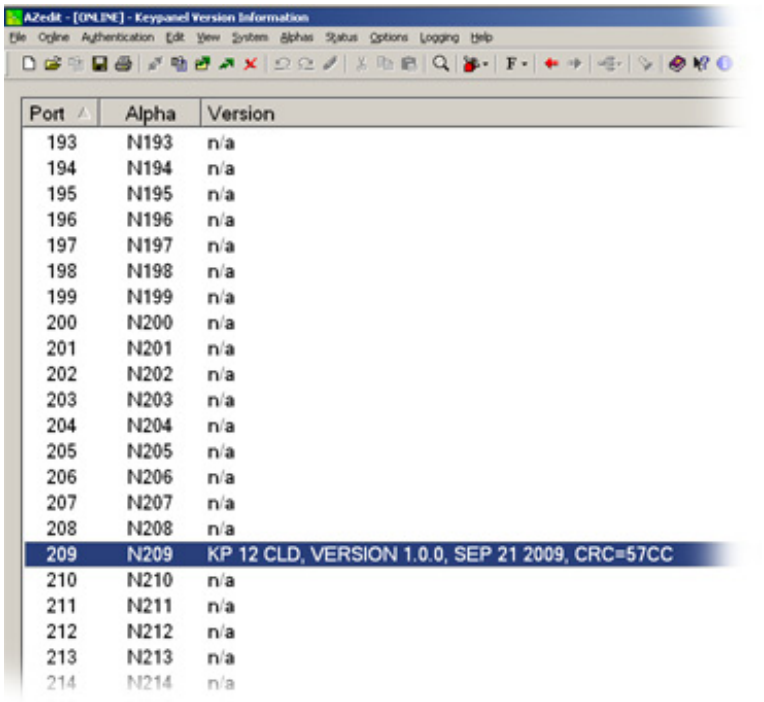
9. Click **OK**.
   The KP 12 CLD firmware download finishes.

NOTE: The download can take up to 30 minutes to complete. Use the Keypanel Version Information window to follow the progress of the download. Also, the keypanel displays Firmware Download on the display until the download is complete.

NOTE: *The KP 12 CLD resets itself once the firmware download is complete.*



10. Verify the **version upgrade** in the I/O Card Version Information window is correct.



Download Firmware Using the BLR Function

The **BLR** (Boot Loader) is used to upload new firmware to a keypanel with a corrupt or bad image installed. There are two (2) ways you can download firmware for the keypanel:

Option 1. If your keypanel is not mounted in a rack, run the boot loader from the keypanel, see “Run The Boot Loader” on page 62.

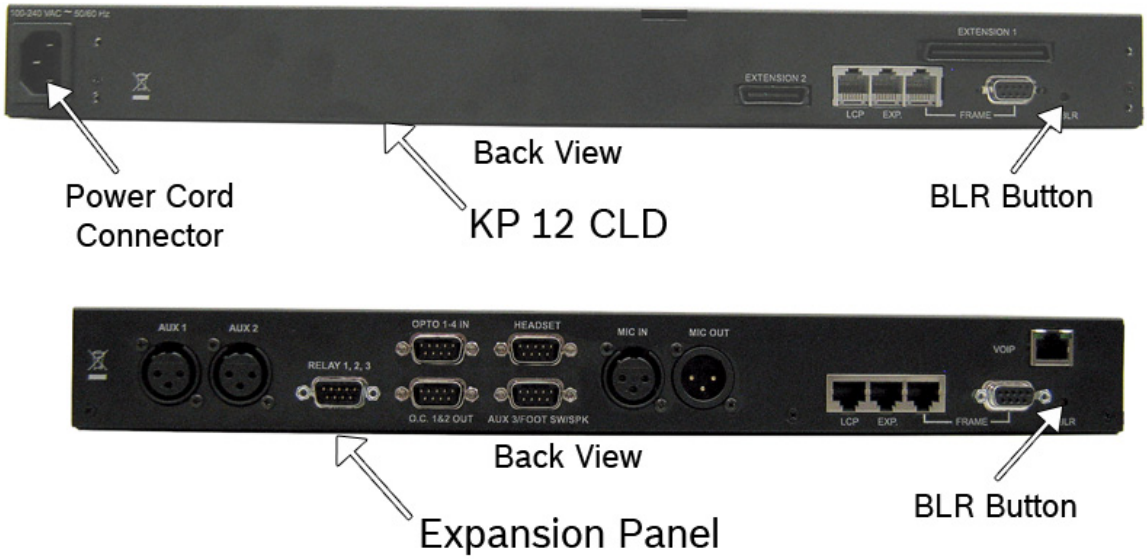
Option 2. If your keypanel is mounted in a rack, enable the boot loader on the keypanel and download the firmware using AZedit, see “Enable The Boot Loader On The Keypanel” on page 64.

Run The Boot Loader

To **run the boot loader**, do the following:

NOTE: If you are using an KP 12 CLD expansion panel, disconnect it from the main KP 12 CLD unit.

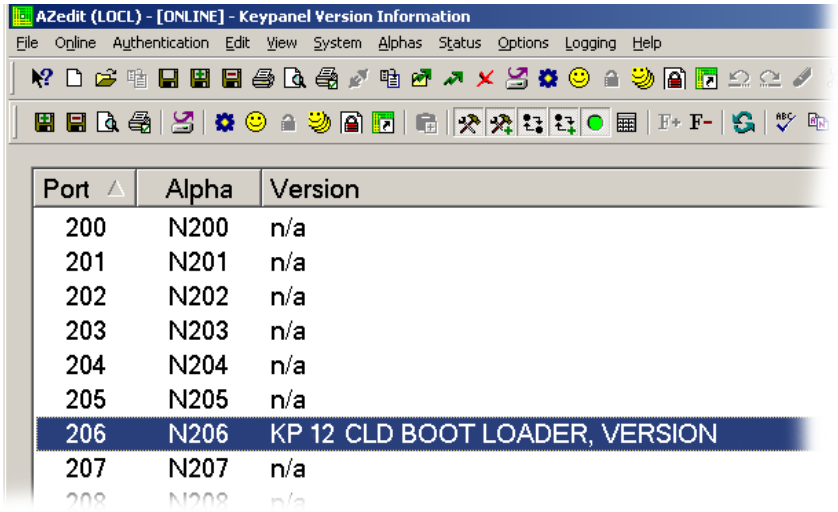
1. Power **off** the keypanel.
2. Verify the **KP 12 CLD** is powered off, but still connected to the FRAME.
3. Using a screwdriver, press the **BLR button** located on the back of the main KP 12 CLD unit.



4. While the BLR button is pressed, connect the **power cord** to the keypanel.
   KP 12 CLD - Boot Loader Waiting for download... appears in the display.

5. In AZedit, from the Status menu, select **Software Versions**.
   The Software Versions popup menu appears.

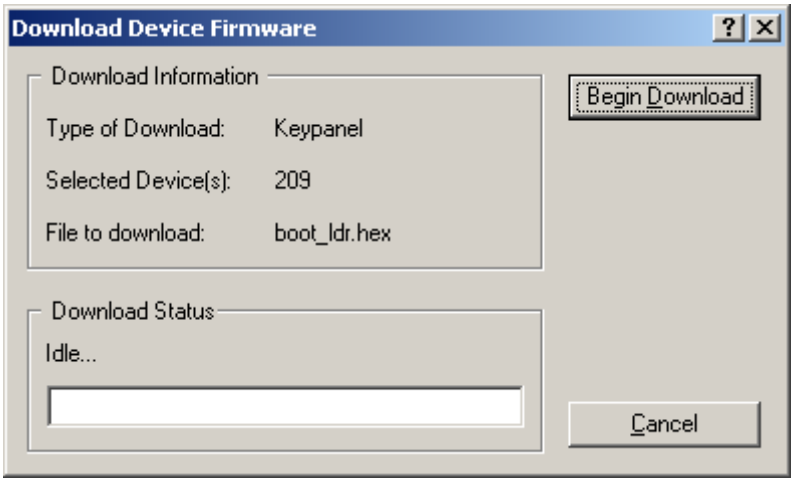
6. From the Software Versions popup menu, select **Keypanels**.
The Keypanel Version Information window appears.



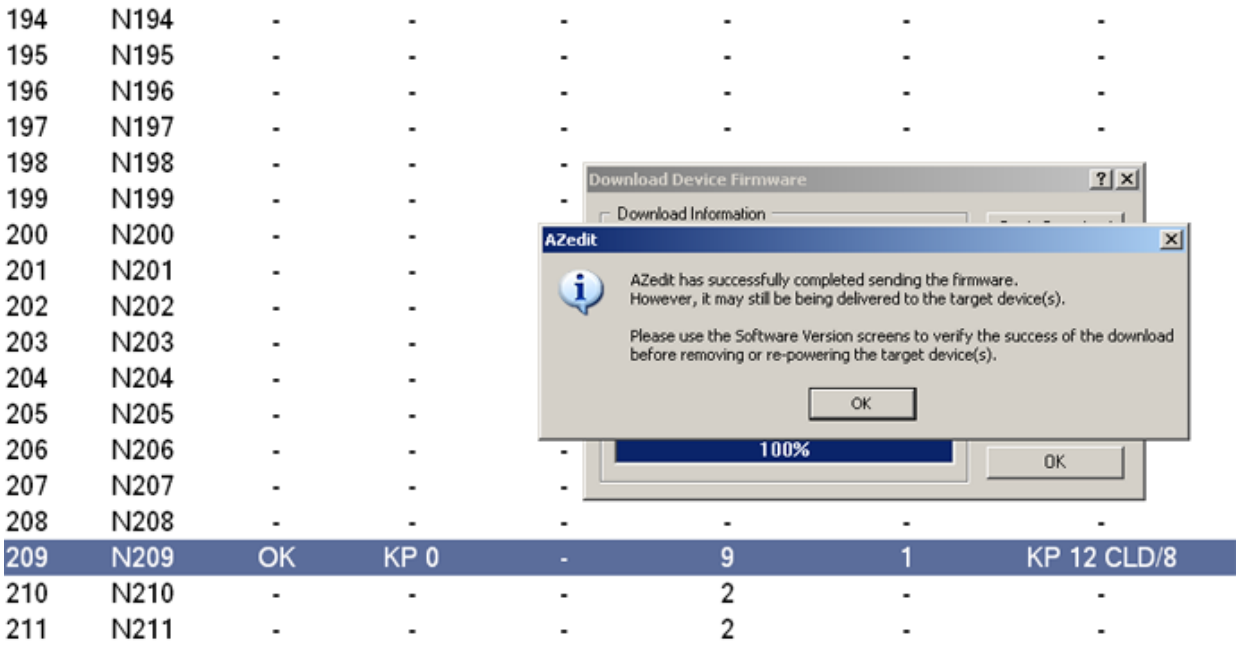
7. From the Keypanel Version Information window, find and select the specified **KP 12 CLD**.

NOTE: Notice the Version column is showing KP 12 CLD Bootloader Version.

8. Right-click on the **KP 12 CLD**.
A popup menu appears.
9. From the popup menu, select **Download Firmware...**.
The Firmware Download navigation window appears.
10. Navigate to and select your **firmware file** (i.e., KP32CLD.hex).
11. Click **Open**.
The Download Device Firmware window appears.



12. Click **Begin Download**.
The Download begins and a popup message appears.



13. Click **OK**.
The KP 12 CLD firmware download finishes.

NOTE: The download can take up to 30 minutes to complete. Use the Keypanel Version Information window to follow the progress of the download (the number and percentage of chunks completed). Also, the firmware progression is displayed on the KP 12 CLD display until the download is complete.

IMPORTANT: If you are downloading a new boot loader image, then when Chunk 1 is at 90%, press and hold the BLR button until the displays shows *Chunk 2*. Once Chunk 2 appears, release the BLR button. Pressing the BLR button during this time triggers the download to continue.

Enable The Boot Loader On The Keypanel

By enabling the boot loader upgrades on the keypanel, updating the firmware on the keypanel is simple. Once you have enabled the keypanel to allow the firmware to be downloaded to it, you can use AZedit to do the rest of the work.

To **enable the boot loader on the keypanel**, do the following:

1. While pressing the **Vol** encoder, press the **MENU** button.
The main menu appears.
2. Using the up or down arrow key, select **Service**.
3. Press the **SEL** button.
The Service menu options appear.

4. Using the up or down arrow key, select **Boot Code**.

5. Press the **SEL** button.
Allow Download and Version X.X.X (where X represents the version numbers).

NOTE: If the firmware version is older than version 1.0.2 question marks (?) appear in the display.

6. Using the up or down arrow key, select **Allow Download**.
7. Press the **SEL** button.
The CLD family keypanel allows firmware downloads.

NOTE: If the keypanel is powered off or loses power, the state of the Allow Download option resets to not enabled. You must reconfigure the option for it to allow new boot loader firmware to be downloader.

CHAPTER 5

KP 12 CLD Menu System

NOTE: A menu system quick reference chart is located at “Keypanel Menu Quick Reference” on page 157.

Main Menu Access

The **Main Menu** is the top most level of the menu structure for the KP 12 CLD.

Available selections for this menu are:

Audio Options
Display
Key Assign
Key Options
OMNEO Offers (Only when OKI board is present)
RVON Offers (Only when RVON device is present)
Save Config
Service

To **access the main menu structure for the KP 12 CLD**, do the following:

1. On the Keypanel keypad, press **MENU**.
   The Information menu structure displays across the middle of the display window.

2. Use the arrow keys on the keypad to **navigate through the menu options**.
3. Press **SEL** to select the menu option.
   The submenu for the selection appears.

Menu System, Audio Options

Available options for this menu are:

Dim
DSP Funcs
Headset Mic
Headset Spk
Key Volumes
LCP 16 CLD
Matrix Out
Max Volume
Mic Gain
Min Volume
Output Lvl
Panel Mic
Preamp Out (Only when GPIO Option Board is present)
Sidetone
Speaker
Tone Gen

IMPORTANT: Some menu items shown on the following pages are not present unless the GPI 12 CLD option card, RVON-2 option card and/or the OKI option card is installed.

FIGURE 18. Main Audio Options Menu

Audio Options Menu, Dim

Dim allows the user to set the level of audio, in dB, heard from the front speaker, rear speaker, front headphone and rear headphone, when a talk key is activated.

By default, dim volume for speakers is set at *-8dB*, and for headsets it is set at *0 dB*.

The range for this field is *-20dB* to *0 dB*.

To **set the dim amount for either the keypanel speaker and/or headset**, do the following:

1. Starting at the Audio Options|Dim menu, select **Headset** to set the dim level for headsets.
   OR
   Using the arrow keys, select **Speaker** to set the dim level for speakers.
2. Press **SEL**.
   Front and Rear appear in the display window.
3. Using the arrow keys, select **Front** to set the dim level for the front speaker/headset.
   OR
   Using the arrow keys, select **Rear** to set the dim level for the rear speaker/headset.
4. Press **SEL**.
   The Dim Amount: scroll box appears.

5. Using the arrow keys, scroll to the **Dim Volume** you desire.

Audio Options Menu, DSP Funcs

DSP Funcs accesses the digital signal processing options for the KP 12 CLD.

Available options for this menu are: *Equalization, Filters, Gating, Metering, and Mixing*. Each of these options is described in detail below.

To **access the DSP Func menu**, do the following:

1. On the KP 12 CLD keypad, press the **MENU** button.
   The Information menu appears.
2. Using the arrow keys, select **Audio Options**.
3. Press **SEL**.
   The Audio Options menu appears.
4. Using the arrow keys, select **DSP Funcs**.
5. Press **SEL**.
   Equalization, Filters, Gating, Metering, and Mixing appears in the display window.

Equalization

Equalization allows the user to select predefined settings that modify the frequency envelope of an audio channel for the front and rear speakers. This is a 5-band equalizer. Each preset provides a different EQ to be applied to the audio sent to the speakers.

By default, *None* is configured.
There is no preset equalization configured.

Available selections for this menu are: *None, Preset #1, Preset #2, Preset #3, Preset #4,* and *Preset #5*.

The presets are as follows:

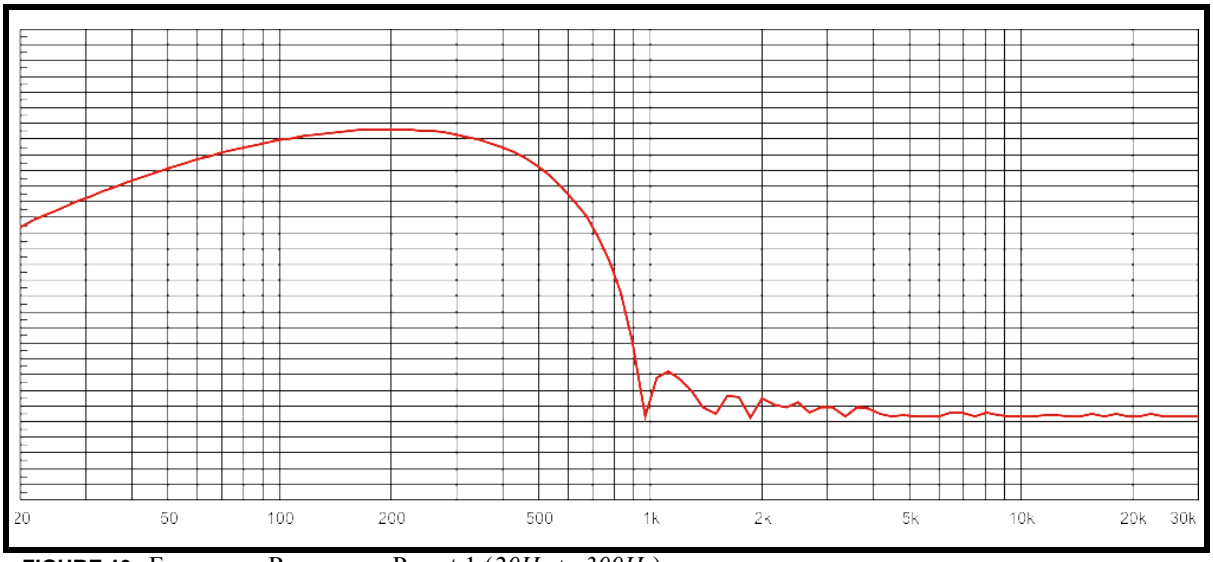


FIGURE 19. Frequency Response - Preset 1 (*20Hz to 300Hz*)

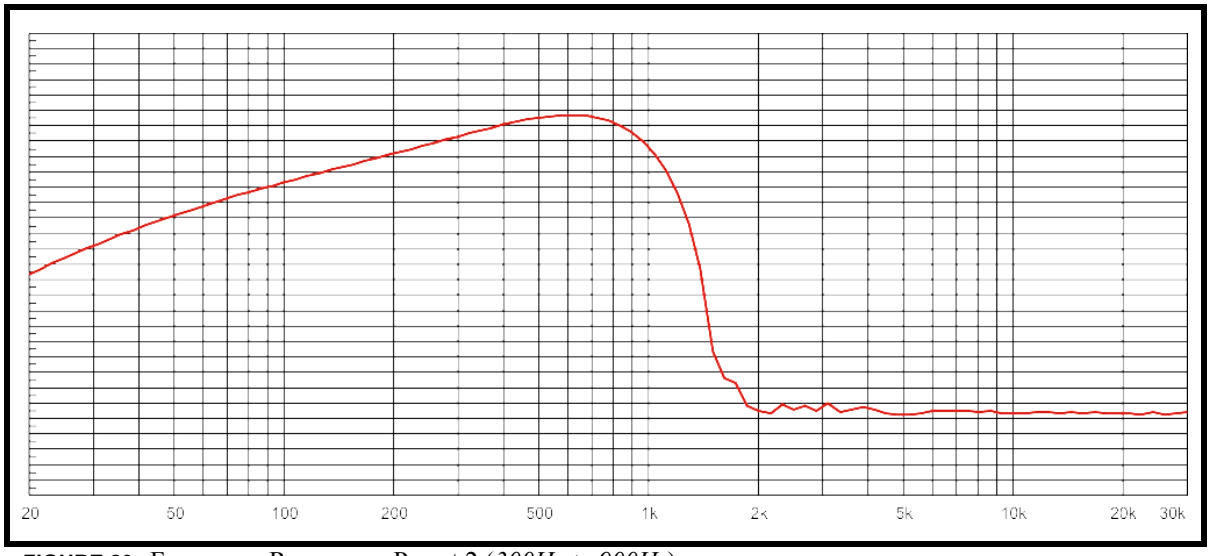


FIGURE 20. Frequency Response - Preset 2 (*300Hz to 900Hz*)

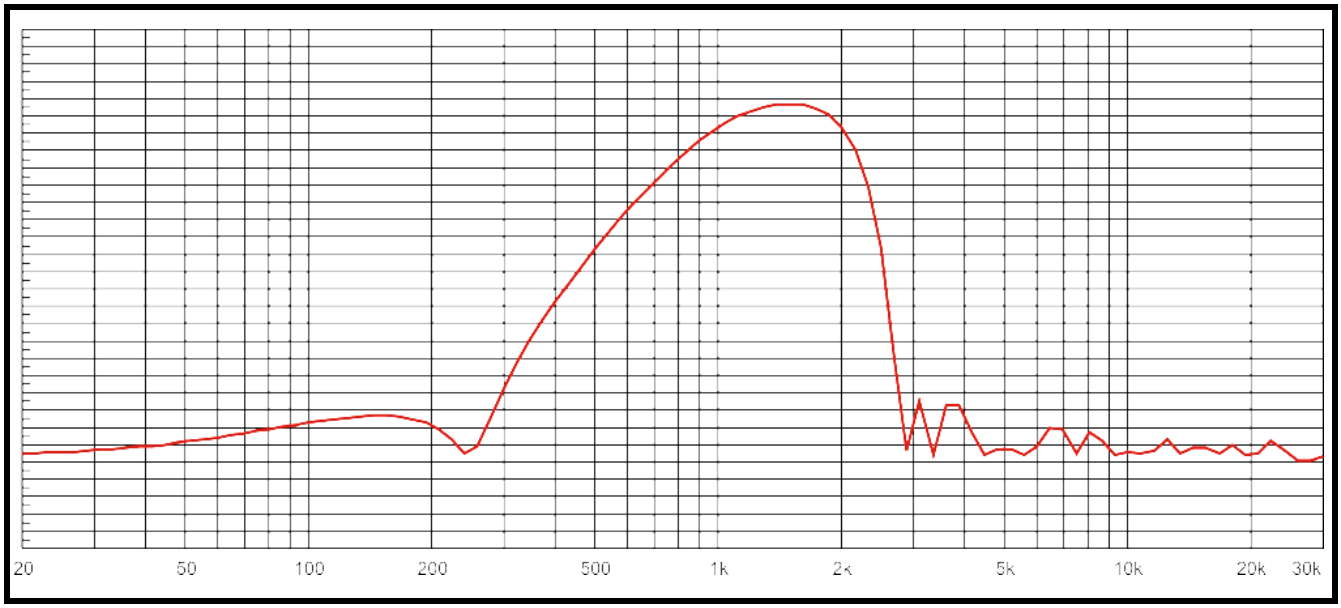


FIGURE 21. Frequency Response - Preset 3 (*900Hz to 2100Hz*)

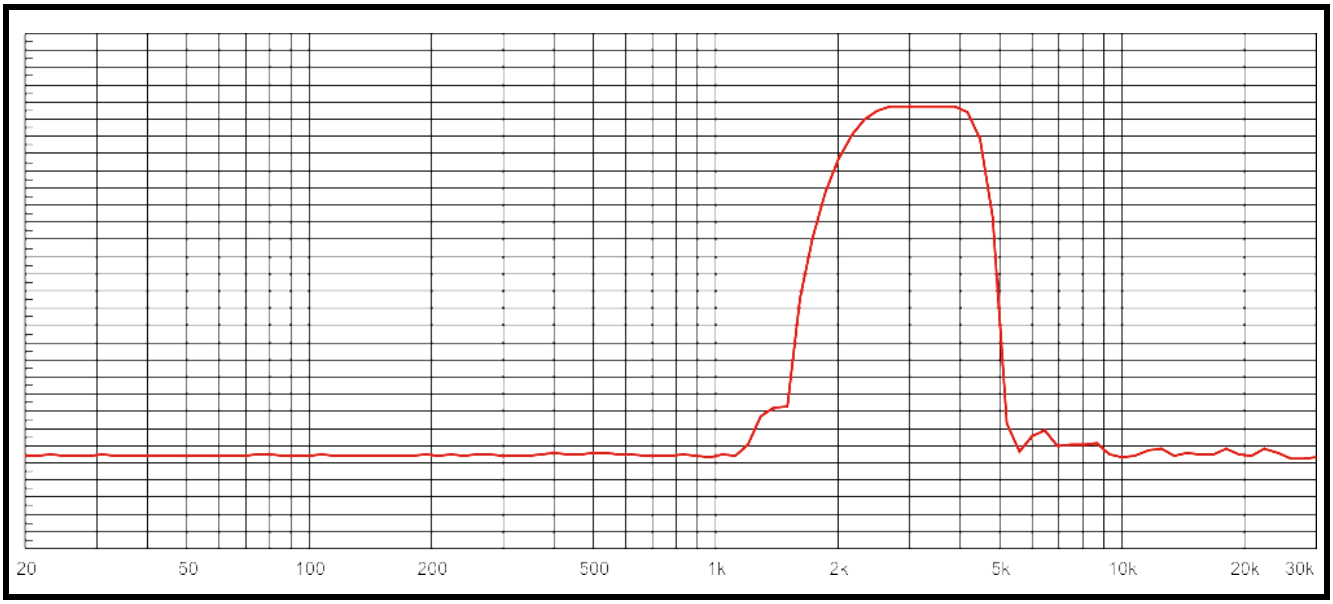


FIGURE 22. Frequency Response - Preset 4 (*2100Hz to 4500Hz*)

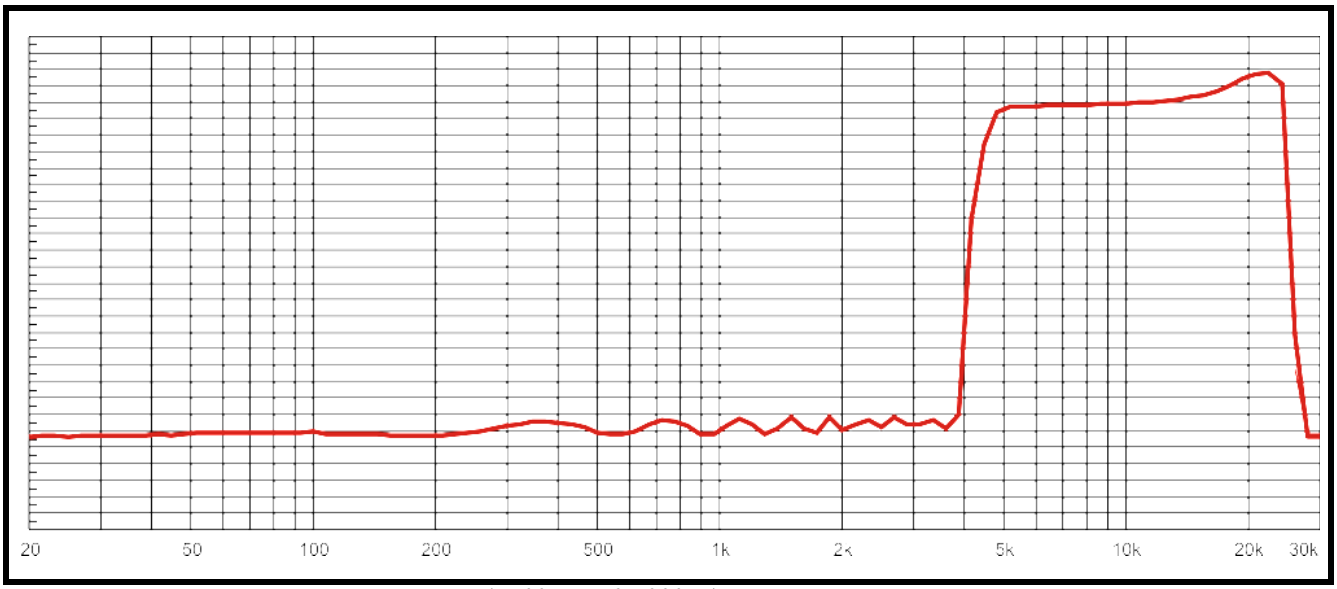


FIGURE 23. Frequency Response - Preset 5 (*4500Hz to 24,000Hz*)

NOTE: The EQ feature is only used for Front and Rear Speakers.

To **configure a preset frequency response on the front speaker, rear left speaker, or rear right speaker**, do the following:

1. Starting at Audio Options|DSP Funcs menu, select **Equalization**.

2. Press **SEL**.
   Front Speaker, Rear Left, and Rear Right appear in the display window.

3. Using the arrow keys, select either **Front Speaker**, **Rear Left**, or **Rear Right**.

   NOTE: Rear Left and Rear Right only appear when the GPI 12 CLD option card is installed.

4. Press **SEL**..
   None, Preset #1, Preset #2, Preset #3, Preset #4, and *Preset #5.*

5. Using the arrow keys, select the **preset** you want to enable.
6. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

Filters

Filters allow you to add a 9600Hz notch filter to one (1) or more audio sources. This can be useful when the keypanel data port signal is being heard in the audio line due to cable routing problems.

By default, filters is set to *None*.

Available options for this menu are:

Aux 1 - 3 *Headset Mic* *Panel Mic*	This feature is only available when the GPI 12 CLD option card is installed.
Rear Headset Mic	This feature is only available when the GPI 12 CLD option card is installed.
Rear Panel Mic	This feature is only available when the GPI 12 CLD option card is installed.
OMNEO Ch1	This feature is only available when the OKI option board is installed.
OMNEO Ch2	This feature is only available when the OKI option board is installed.
RVON Ch1	This feature is only available when the RVON-2 option card is installed.
RVON Ch2	This feature is only available when the RVON-2 option card is installed.

To **configure filtering on the KP 12 CLD keypanel**, do the following:

1. Starting at the **Audio Options**|**DSP Funcs** menu, select **Filters**.
2. Press **SEL**.
   Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2 RVON Ch1, and RVON Ch2 appear in the display window.

3. Using the arrow keys, select **Aux In 1**, **Aux In 2**, **Aux In 3**, **Front Hdst**, **Front Mic**, **Matrix In, Rear Hdst**, **Rear Mic**, **OMNEO Ch1**, **OMNEO Ch2**, **RVON Ch1**, or **RVON Ch2**.
4. Press **SEL**.
   None and 9600Hz appears in the display window.
5. Using the arrow keys, select either **None** or **9600Hz** baud.

6. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

Gating

Gating allows you to minimize or eliminate background noise problems by shutting off an audio source when the sound level drops below a certain threshold.

Available options for this menu are:

Aux 1 - 3	This feature is only available when the GPI 12 CLD option card is installed.
Headset Mic	
Matrix	
Panel Mic	
Rear Headset Mic	This feature is only available when the GPI 12 CLD option card is installed.
Rear Panel Mic	This feature is only available when the GPI 12 CLD option card is installed.
OMNEO Ch1	This feature is only available when the OKI option board is installed.
OMNEO Ch2	This feature is only available when the OKI option board is installed.
RVON Ch1	This feature is only available when the RVON-2 option card is installed.
RVON Ch2	This feature is only available when the RVON-2 option card is installed.

The range is for this field is *-17dB* to *18dB* and *Disabled*.
By default, the gating threshold is set to *Disabled*.

NOTE: *0 dB* threshold is *12dB* below nominal. Nominal inputs are as follows:

Aux In 1- 3	*8dBu*
Headset Mic	*-50dBu*
Matrix In	*8dBu*
Panel Mic	*-42.5dBu*
OMNEO Ch1	*8dBu*
OMNEO Ch2	*8dBu*
RVON Ch1	*8dBu*
RVON Ch2	*8dBu*

To **configure gating on the KP 12 CLD keypanel**, do the following:

1. Starting at the Audio Options|DSP Funcs menu, select **Gating**.
2. Press **SEL**.
   Aux In 1, Aux In 2, Aux In 3,Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, and RVON Ch2 appear in the display window.

3. Using the arrow keys, select **Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1**, or **RVON Ch2**.

4. Press **SEL**.
   The Threshold scroll box appears in the display window.

5. Using the arrow keys, select the **threshold** you want to set for the option selected.
6. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

Metering

Metering allows you to monitor an audio source connected to the keypanel. The energy of the incoming audio is split into five (5) bands and displayed on the left side of the keypanel, when enabled.

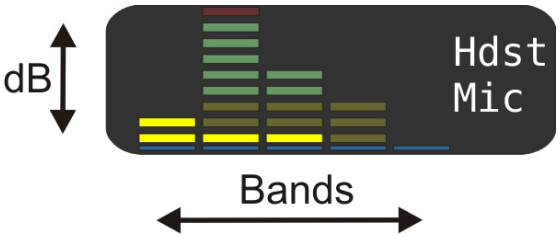


FIGURE 24. Metering Explanation

The dB display range is from *28dB* below nominal to *8dB* above nominal.

Available options for this menu are:

Band 1	*100Hz* to *400Hz*
Band 2	*400Hz* to *800Hz*
Band 3	*800Hz* to *1.6KHz*
Band 4	*1.6KHz* to *3.2KHz*
Band 5	*3.2KHz* to *15KHz*

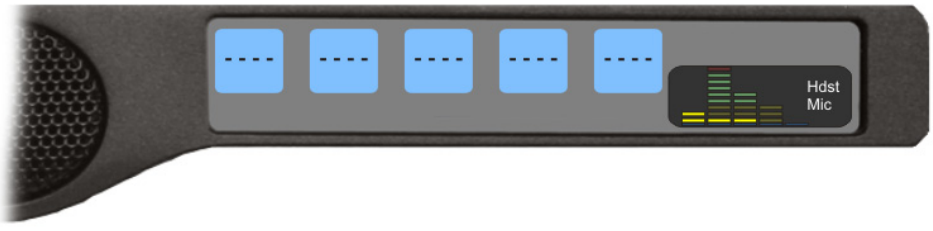


FIGURE 25. Metering Bands display

By default, *None* is configured for metering.

NOTE: Only one (1) channel can be metered at a time.

You can enable metering on:

Aux In 1 - 3	*This feature is only available when the GPI 12 CLD option card is installed.*
Front Headset	
Front Mic	
Matrix In	
Rear Headset	This feature is only available when the GPI 12 CLD option card is installed.
Rear Mic	This feature is only available when the GPI 12 CLD option card is installed.
OMNEO Ch1	This feature is only available when the OKI option board is installed.
OMNEO Ch2	This feature is only available when the OKI option board is installed.
RVON Ch1	This feature is only available when the RVON-2 option card is installed.
RVON Ch2	This feature is only available when the RVON-2 option card is installed.

To **enable metering on the KP 12 CLD**, do the following:

1. Starting at the **Audio Options**|**DSP Funcs** menu, select **Metering**.
2. Press **SEL**.
   Aux In 1, Aux In 2, Aux In 3, Matrix In, None, Front Hdst, Front Mic, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, or RVON Ch2 appear in the display window.

3. Using the arrow keys, select **Aux In 1, Aux In 2, Aux In 3, Matrix In, None, Front Hdst, Front Mic, Rear Hdst, Rear Mic**, **OMNEO Ch1**, **OMNEO Ch2**, **RVON Ch1**, or **RVON Ch2**.
4. Press **SEL**.
   A blue arrow ▶ *appears next to the selected option.*

Mixing

Mixing allows you to route selected audio signals to the following destinations:

- *To Matrix*
- *Front Left Headphone*
- *Front Right Headphone*
- *Front Speaker*
- *Mic Pre Out*
- *OMNEO Ch1 OUT*
- *OMNEO Ch2 OUT*
- *Rear Left Speaker*
- *Rear Right Speaker*
- *Rear Left Headphone*
- *Rear Right Headphone*
- *RVON Ch1 OUT*
- *RVON Ch2 OUT*

By default, the microphone signal is routed to the matrix. The matrix signal is routed to the speaker and to the left and right headphones.These defaults can be changed via the Audio Options sub-menus for Panel Mic, Headset Mic, Speaker, and Headset Speaker.

Available options for this menu are:

Aux 1 – 3	*This feature is only available when the GPI 12 CLD option card is installed.*
Headset Mic	
Matrix	
Panel Mic	
OMNEO Ch1	This feature is only available when the OKI option board is installed.
OMNEO Ch2	This feature is only available when the OKI option board is installed.
Rear Headset Mic	This feature is only available when GPI 12 CLD option card is installed.
Rear Panel Mic	This feature is only available when GPI 12 CLD option card is installed.
RVON Ch1 IN	This feature is only available when the RVON-2 option card is installed.
RVON Ch2 IN	This feature is only available when the RVON-2 option card is installed.

TABLE 7. Resources Table

DESTINATION \ SOURCE	Front Pane Mic	Matrix Audio In	Front Headset Mic	Rear Headset Mic	Rear Panel Mic	Aux IN 1	Aux IN 2	Aux IN 3	Option Card[a] Ch1 IN	Option Card Ch2 IN
Matrix OUT	X	X	X	X	X	X	X	X	X	X
Front Speakers	X	X	X	X	X	X	X	X		X
Front Headset Left	X	X	X	X	X	X	X	X	X	X
Front Headset Right	X	X	X	X	X	X	X	X	X	X
Rear Headset Left	X	X	X	X	X	X	X	X	X	X
Rear Headset Right	X	X	X	X	X	X	X	X	X	X
Rear Speaker Left	X	X	X	X	X	X	X	X	X	X
Rear Speaker Right	X	X	X	X	X	X	X	X	X	X
Mic OUT	X	X	X	X	X	X	X	X	X	X
Option Card Ch1 OUT	X	X	X	X	X	X	X	X	X	X
Option Card Ch2 OUT	X	X	X	X	X	X	X	X	X	X

a. Option cards refer to the RVON-2 and OKI-2.

NOTE: If all resources are being used, the Rear Panel Mic is not available.

To **configure mixing on the KP 12 CLD**, do the following:

1. Starting at the **Audio Options**|**DSP Funcs** menu, select **Mixing**.
2. Press **SEL**.
   Front Hdst, Front Spkr, OMNEO Ch1, OMNEO Ch2, Preamp Out, Rear Hdst, Rear Spkr, RVON Ch1, RVON Ch2 and To Matrix appear in the display window.

3. Using the arrow keys, select the **Output** you want to mix to.

4. Press **SEL**.
   Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, OMNEO Ch1, OMNEO Ch2, Rear Hdst, Rear Mic, RVON Ch1, and RVON Ch2 appear in the display window.

5. Using the arrow keys, select the **Input** you want to mix to the selected output.
6. Press **SEL**.
7. Press **CLR** to exit menu mode.

Audio Options Menu, Headset Mic

The **Headset Mic** option allows the user to configure where audio is coming from and the type of microphone being used.

By default, if no headset is detected, the headset mic input is muted to avoid allowing noise to get to the system. This feature can be disabled.

NOTE: When a GPI 12 CLD option card is installed, Front and Rear options are displayed.

Available selections for the auto-mute menu are:

Disabled

Enabled

Available selections for the mode menu are:

Disabled

Enabled

Switched (default) When set to switched, the state of the Headset Mic is controlled by the Mic Sel key.

Available selections for the type menu are:

Auto-Detect (default) The keypanel automatically detects the type of microphone connected.

Dynamic

Electret

To **configure the Headset Mic auto-mute**, do the following:

1. Starting at the **Audio Options|Headset Mic** menu, select either **Front** or **Rear**.

2. Press **SEL**.
   Auto-mute, Mode and Type appear.
3. Using the arrow keys, select **Mode**.
   Disabled and Enabled appear.
4. Using the arrow keys, select **Disable** to stop auto-mute.
   OR
   Using the arrow keys, select **Enable** to activate auto-mute.
5. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

To **configure the Headset Mic mode**, do the following:

1. Starting at the **Audio Options|Headset Mic** menu, select either **Front** or **Rear**.

2. Press **SEL**.
   Auto-mute, Mode and Type appear.
3. Using the arrow keys, select **Mode**.
   Disabled, Enabled, and Switched appear.

4. Using the arrow keys, select the **mode**.
5. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

To **configure the Headset Mic type**, do the following:

1. Starting from the **Audio Options|Headset Mic** menu, select either **Front** or **Rear**.

2. Press **SEL**.
   Auto-mute, Mode and Type appear.
3. Using the arrow keys, select **Type**.
   Auto-Detect, Dynamic, and Electret appear.

4. Using the arrow keys, select the **Auto-Detect**, **Dynamic**, or **Electret**.
5. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

Audio Options Menu, Headset Spkr

The **Headset Spkr** menu option is used to control the headset detection functions: auto-transfer, which is used to detect if a headset is present and mode, which determines when and where audio is heard.

NOTE: When a GPI 12 CLD option card is installed, Front and Rear options are displayed.

Available selections for the auto-transfer menu are:

Disabled

Enabled — When enabled, the keypanel automatically enters or leaves headset mode when a headset is plugged in or removed.

Available selections for the mode menu are:

Always On (default)

Disabled

Switched — When set to Switched, the state of the Headset Spkr is controlled by the Mic Sel key.

To **configure the Headset Spkr mode**, do the following:

1. Starting from the **Audio Options**|**Headset Spkr**, select either **Front** or **Rear**.

2. Press **SEL**.
   Auto-Transfer and Mode appear.
3. Using the up and down arrows, select **Mode**.
   Always On, Disabled, and Switched appear.

4. Using the up and down arrows, select the **mode**.
5. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

To **configure the Headset Spkr Auto-Transfer function**, do the following:

1. Starting from the **Audio Options**|**Headset Spkr** menu, select either **Front** or **Rear**.

2. Press **SEL**.
   Auto-Transfer and Mode appear.

3. Using the arrow keys, select **Auto-Transfer**.
   Disabled and Enabled appear.
4. Using the arrow keys, select **Disabled** or **Enabled**.
5. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

Audio Options Menu, Key Volumes

Key Volumes menu is used to enable or disable the adjusting of crosspoint listen gains. If Key Volumes are enabled, the user can adjust the listen gains for Matrix crosspoints from the KP 12 CLD.

Also from this menu item you can reset all the modified key gains back to their default settings.

NOTE: Key Volumes are either enabled for the entire keypanel or disabled for the entire keypanel. This setting cannot be set on a per key basis.

To **enable key volumes on the KP 12 CLD**, do the following:

1. Starting from the **Audio Options**|**Key Volumes** menu, select **Adjust**.

2. Press **SEL**.
   Disabled and Enabled appear in the display window.
3. Using the arrow keys, select **Enabled**.

4. Press **SEL**.
   Key volume adjustments by users are allowed.

To **reset all key gains to their default value**, do the following:

1. Starting at the **Audio Options**|**Key Volumes** menu, select **Reset**.

2. Press **SEL**.
   Cancel and Do Reset appear in the display window.
3. Using the arrow keys, select **Do Reset**.
4. Press **SEL**.
   Volumes Reset appears in the display window.

Audio Options Menu, LCP 16 CLD

The **LCP 16 CLD Level Control Panel** is connected to a KP CLD keypanel. The LCP 16 CLD panel, when connected to a CLD keypanel is only used to adjust input and output volumes. You may connect only one (1) LCP panel to a CLD keypanel.

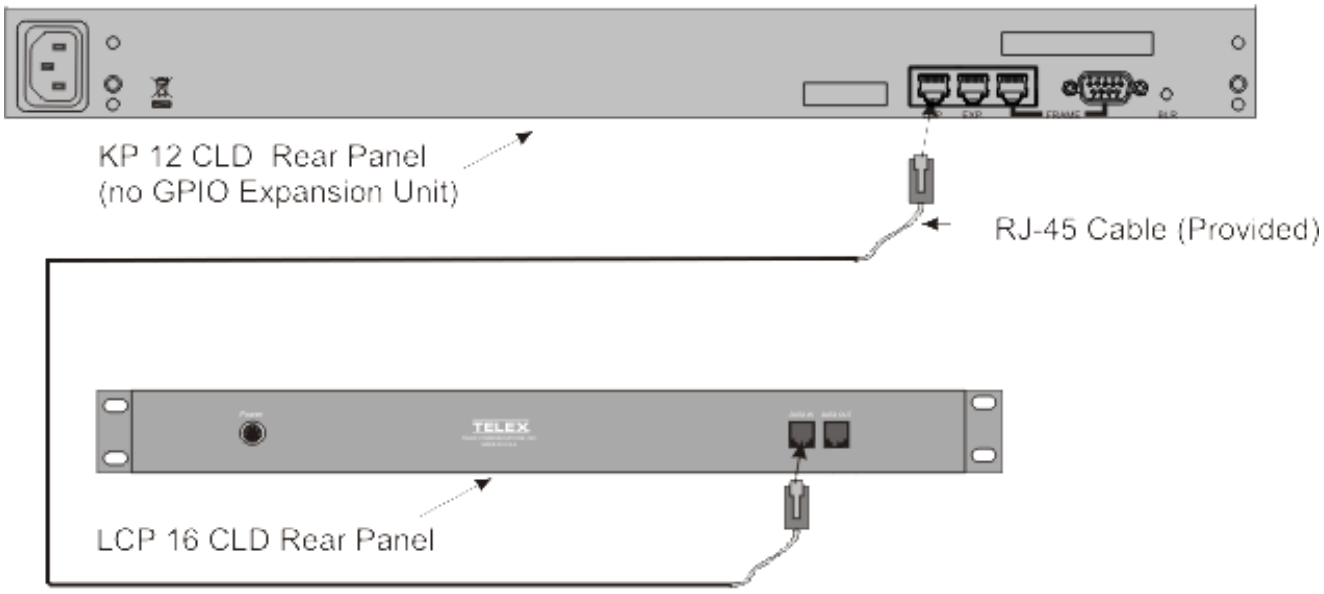


FIGURE 26. Hardware Setup for KP 12 CLD and LCP 16 CLD

CAUTION: Do not connect a KP 12 CLD power supply to the LCP 16 CLD. Doing so could cause damage to the unit.

NOTE: The LCP 16 CLD menu option in both the Audio Options and Display menus is always present whether an LCP 16 CLD unit is connected to the KP CLD unit or not.

To **configure an LCP 16 CLD via the KP CLD**, do the following:

1. Starting at the Audio Options|LCP 16 CLD, select the **encoder knob number** you want to configure.
2. Press **SEL**.
   Inputs, Outputs, Sidetone and Unassigned appears.
3. Using the page down key, scroll until **Inputs** appears, to configure the input levels.
   OR
   Using the page down key, scroll until **Outputs** appears, to configure the output levels.
   OR
   Using the page down key, scroll until **Sidetone** appears, to configure the sidetone levels.
   OR
   Using the page down key, scroll until **Unassigned** appears, to clear any configurations on a per key basis.
4. Press **SEL**.
   The LCP 16 CLD configuration is changed.

Audio Options Menu, Matrix Out

Matrix Out allows the user to select between Normal or Hot Mic. In the Normal setting, audio from the selected active mic (based on the mic select feature, see “Audio Options Menu, Panel Mic” on page 89) goes out to the Matrix when any talk key is latched. In the Hot Mic setting, audio from the mic goes out to the Matrix without regard to the talk key state.

By default, Matrix Out is set to *Normal* operation.

To **configure the Matrix Out**, do the following:

1. Starting at the Audio Options|Matrix Out, select **Hot Mic** or **Normal**.

2. Press **SEL**.

   A blue arrow  *appears next to the selected option.*

   NOTE: When Hot Mic is enabled, the Hot Mic  icon appears in the display window.

Audio Options Menu, Max Volume

Max Volume sets the maximum level, in dB, of volume the user can configure the headset for. This feature prevents incoming audio from being too loud.

The range for this field is *-48dB* to *10dB,* and *Mute*.
The default setting is *10dB*.

To **set the max volume for the headset**, do the following:

1. Starting at the Audio Options|**Max Volume** menu, select **Headset** to set the maximum volume for headsets.
2. Press **SEL**.
   Front and Rear appear in the display window.
3. Using the arrow keys, select **Front** to set the maximum volume for the front headset.
   OR
   Using the arrow keys, select **Rear** to set the maximum volume for the rear headset.
4. Press the **SEL** button.
   The Max Volume: scroll box appears.

5. Using the arrow keys, scroll to the **maximum volume** you desire.

Audio Options Menu, Mic Gain

Mic Gain allows the user to adjust the mic gain level, in dB, and enable or disable mic gain on the keypanel.

The range for this field is *-20dB* to *10dB*. By default, it is set to *0 dB*.

To **set the mic gain level**, do the following:

1. Starting at the Audio Options|Mic Gain menu, select **Level**.

2. Press **SEL**.
   Front Hdst, Front Mic, Rear Hdst, and Rear Mic appear in the display window.

3. Using the arrow keys, select the **source to configure mic gain**.
4. Press **SEL**.
   The mic gain scroll box appears in the keypanel display.
5. Using the arrow keys, scroll to the **mic gain level** (in dB) you want.

To **enable/disable the mic gain level adjustment from the front mic select switch for the KP 12 CLD**, do the following:

1. Starting at the Audio Options|Mic Gain menu, select **Adjust**.

2. Press **SEL**.
   Disabled (default), Front Hdst, Front Mic, Rear Hdst, and Rear Mic appear in the display window.

3. Using the arrow keys, select the **resource** you want to configure.
4. Press **SEL**.
   Disabled and Enabled appear.
5. Using the arrow keys, select **Disabled** to prohibit mic gain adjustments.
   OR
   Using the arrow keys, select **Enabled** to allow mic gain adjustments.
   A blue arrow ▶ *appears next to the selected option.*

Audio Options Menu, Min Volume

Min Volume allows the user to set the minimum volume level, in dB, for both the keypanel speaker and/or the headset speaker. This is the minimum volume level available on the volume control, located on the front of the KP 12 CLD.

The range for this field is *-48dB* to *10dB* and *Mute*.
By default, Min Volume is set to *Mute*.

To **set the min volume for either the keypanel speaker and/or headset speaker**, do the following:

1. Starting at the Audio Options|Min Volume menu, select **Headset** to set the minimum volume for headsets.
   OR
   Using the arrow keys, select **Speaker** to set the minimum volume for speakers.
2. Press **SEL**.
   Front and Rear appear in the display window.
3. Using the arrow keys, select **Front** to set the minimum volume for the front speaker/headset.
   OR
   Using the arrow keys, select **Rear** to set the minimum volume for the rear speaker/headset.
4. Press **SEL**.
   The Min Volume: scroll box appears.

5. Using the arrow keys, scroll to the **minimum volume** you desire.

Audio Options Menu, Outp Level

Output Level allows the user to adjust the nominal audio output level to the matrix.

The range for this field is *0 dB* to *+8dB*.
By default, the Output Level is set to *8dB*.

To **set the output level**, do the following:

1. Starting at the Audio Options|Outp Level menu, select the **Output Level** you want to configure.

2. Press **SEL**.

Audio Options Menu, Panel Mic

The **Panel Mic** menu option is used to configure how the panel mic operates. When a GPI 12 CLD option card is installed, Front and Rear options are displayed.

Available options for this field are:

Disabled

Enabled

Switched (default) when enabled, the state of the Panel Mic is controlled by the Mic Sel key.

To **configure the Panel Mic**, do the following:

1. Starting at the Audio Options|Panel Mic menu, select either **Front** or **Rear**.

NOTE: All four (4) mics cannot be enabled at the same time. If three (3) mic sources are turned on, the rear panel mic is not available. For example, if the front panel mic, the front headset mic, and the rear headset mic are *Enabled*, the rear panel mic is not available.

2. Press **SEL**.
Disabled, Enabled, and Switched appears.

3. Using the arrow keys, select the **mode**.
4. Press **SEL**.
A blue arrow ▶ *appears next to the selected option.*

Audio Options Menu, Preamp Out

Preamp Out allows the user to choose how audio is routed to the Preamp Output connector.

NOTE: The GPI 12 CLD option card must be installed for the Preamp Out menu item to appear.

The selections available are:

Disabled When *Disabled* is selected, keypanel audio is isolated from the preamp output connector.

Hot Mic When *Hot Mic* is selected, audio is always available at the preamp output connector.

Switched (default) When *Switched* is selected, keypanel audio is routed to the preamp output connector when a talk key is latched.

To **configure the preamp output connector**, do the following:

1. Starting at the Audio Options|Preamp Out menu, select the **Preamp Out option** you want.
2. Press **SEL**.
   Disabled, Hot Mic, and Switched appears in the display window.

3. Using the arrow keys, select **Preamp Out option** you want.
4. Press **SEL**.

Audio Options Menu, Sidetone

Sidetone indicates the level, in dB, at which the users own voice is heard. Most people prefer some amount of sidetone to overcome the muffled sensation when talking, especially when wearing a dual-sided headset.

The range for this field is *-35dB* to *0 dB*.
By default, the sidetone level is set at *-20dB*.

You can also configure the mode sidetone operates.

The available options for the sidetone mode are:

Always On

Disabled

Switched (default) When set to switched, the user's voice is heard only when the talk key is activated.

To **set the sidetone level**, do the following:

1. Starting at the Audio Options|Sidetone menu, select **Level**.
2. Press **SEL**.
   The Sidetone Level adjustment appears in the display window. By default, sidetone is set to -20dB.

3. Use the scroll arrows ▲▼ to adjust the **sidetone level**.

To **set the sidetone mode**, do the following:

1. Starting at the Audio Options|Sidetone menu, select **Mode**.
2. Press **SEL**.
   Always On, Disabled, and Switched appear in the display window. By default, Switched is selected.

3. Using the arrow keys, select the **mode** to operate sidetone.
4. Press **SEL**.
5. Run **Save Config** to save the modification.

Audio Options Menu, Speaker

The **Speaker** menu option is used to configure how the speaker operates. When a GPI 12 CLD option card is installed, Front and Rear options are displayed.

Available options for this menu are:

Always On

Disabled

Switched (default) when enabled, the state of the Speaker is determined by the Mic Sel key.

To **configure the speaker**, do the following:

1. Starting at the Audio Options|Speaker menu, select either **Front** or **Rear**.

2. Press **SEL**.
   Always On, Disabled, and Switched appears.

3. Using the arrow keys, select the **option** you want to configure.
4. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option*.

Audio Options Menu, Tone Gen

Tone Gen (tone generation) allows the user to turn the tone generator on or off. The tone generator is used to check the audio path from the keypanel to the matrix.

Available selections for this menu are:

500Hz Tone (default)

1kHz Tone

The selected tone can be activated from either the menu or from the keypad.

To **enable/disable the tone generator**, do the following:

> Starting at the Audio Options|Tone Gen menu, select **Tone Off** to disable the tone generator.
> OR
> Using the arrow keys, select **Tone On** to enable the tone generator.
>
> *A blue arrow* ▶ *appears next to the selected option.*

To **set the frequency level for the tone**, do the following:

1. Starting at the Audio Options|Tone Gen menu, select **Frequency**.

2. Press **SEL**.
   1kHz Tone and 500Hz Tone appears in the display window.

3. Using the arrow keys, select **1KHz Tone**.
   OR
   Using the arrow keys, select **500Hz Tone**.

   A blue arrow ▶ *appears next to the selected option and the 500Hz* 

or 1KHz 

icon displays in the display window if tone is enabled and the menu is cleared.

Menu System, Display

Use this menu to display information about the keypanel configuration.

The information available for display is as follows:

Assign Type
Auto Dial
Chans On
Chime
Exclusive
Key Groups
Key List
LCP 16 CLD
Level 2 (Key Assignments)
Listen (Assignments)
Matrix
Panel ID
Solo Key
(Keypanel Firmware) Version

FIGURE 27. Main Display Menu

Display Menu, Assign Type

Assign Type displays the talk level 1 assignment types for all keys.

To **display the types of key assignments assigned to the KP 12 CLD**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Information menu appears.
2. Verify **Display** is selected.
3. Press **SEL**.
   The Display submenu appears.
4. Verify **Assign Type** is selected.
5. Press **SEL**.
   The assignment types appear on the appropriate key displays.

Display Menu, Auto Dial

Auto Dial displays the keypanel keys assigned 1-touch auto dial numbers. 1-Touch auto dial numbers are configured using the locally stored numbers on the keypanel. Once a 1-touch auto dial key is configured, press the configured key to cause the TIF to go off-hook and auto dial the selected number.

To **display the auto dial numbers assigned to the keypanel keys**, do the following:

1. Starting at the Display menu, select **Auto Dial**.
2. Press **SEL**.
   1-Touch Auto Dial appears in the display window and the key assigned to the number appears with a red bar talk bar.

Display Menu, Chans On

Chans On displays an alpha list of all intercom ports with talk crosspoints currently closed to this keypanel. Chans On is typically used to locate an open mic or other open audio source that needs to be shut off. The most likely cause is a talk key that has been left on at some keypanel. In this case, use the ↓↓ and ↑↑ keys to quickly page-scroll through the list of names. Press the call waiting window key to ask the person at the other end of the connection to turn off the talk key.

To **display the Chans On information**, do the following:

1. Starting at the Display menu, select **Chans On**.

2. Press **SEL**.
   The Chans On display appears showing the channels that are on.

Display Menu, Chime

Chime displays all keys with the chime option enabled on them in red. For more information on the Chime option, see “Key Options Menu, Chime” on page 109.

To **display keys with Chime enabled**, do the following:

1. Starting at the Display menu, select **Chime**.
2. Press **SEL**.
   The Chime display appears showing chime enabled keys in red.

Display Menu, Exclusive

Exclusive displays all keys with the exclusive key assignment. For more information on the exclusive assignment, see “Key Options Menu, Exclusive” on page 110.

To **display the Exclusive Keys information**, do the following:

1. Starting at the Display menu, select **Exclusive**.
2. Press **SEL**.
   The Exclusive display appears showing exclusive keys in red.

NOTE: You can assign more than one (1) Exclusive key.

Display Menu, Key Groups

Key Groups displays a scroll list of groups available on the keypanel.

To **display the different groups available**, do the following:

1. Starting at the Display menu, select **Key Groups**.
2. Press **SEL**.
   Group 1, Group 2, Group 3, and Group 4 appear in the display window.
3. Using the arrow keys, select the **Group** you want to display.
4. Press **SEL**.
   The Master key appears in red, while the slave keys appear in green.

Display Menu, Key List

Key List displays and allows users to see all the other assignments on other keypanel pages not currently showing in the keypanel display.

To **display the Key List information**, do the following:

1. Starting at the Display menu, select **Key List**.
2. Press **SEL**.
   The Key List displays all the assignments not currently displayed on the keypanel.

Display Menu, LCP 16 CLD

LCP 16 CLD displays the LCP 16 CLD assignments for the keypanel key.

To **display the LCP 16 CLD assignments on the KP CLD**, do the following:

1. Starting at the Display menu, select **LCP 16 CLD**.
2. Press **SEL**.
   The LCP 16 CLD assignments appear under the corresponding keys in the KP CLD display panel.

   NOTE: If an LCP 16 CLD is not detected by the KP CLD keypanel, the message LCP 16 CLD Assigns (LCP Not Detected).

Display Menu, Level 2

Level 2 displays the talk level 2 assignments for any key that has talk level 2 assignments. Talk level 2 assignments are used to call two (2) users at one (1) time or to assign an auto function, activated when the Level 1 assignment is used.

To **display the Level 2 Talk information**, do the following:

1. Starting at the Display menu, select **Level 2**.
2. Press **SEL**.
   The Level 2 display appears showing the level 2 talk keys.

Display Menu, Listen

Listen displays the listen assignments for all keys, if applicable.

To **display the Level 2 Talk information**, do the following:

1. Starting at the Display menu, select **Listen**.
2. Press **SEL**.
   The Listen display appears showing the listen assignments on the specified keys.

Display Menu, Matrix

Matrix displays the intercom system name for all talk level 1 key assignments. The local intercom is represented by a green key, while a remote intercom is represented by a red key. If a key assignment is not present on a key, an unassigned key displays.

In non-trunked intercom systems, the intercom system name is always LOCL (local). In trunked systems, intercom system names are created in Trunk Edit (*Intercoms*|*Names*).

To **display the matrix intercom system name**, do the following:

1. Starting at the Display menu, select **Matrix**.
2. Press **SEL**.
   The Matrix display appears showing the matrix intercom system.

Display Menu, Panel ID

Panel ID displays the port number to which the keypanel is connected (used only with an AIO-8 card). The calculation is based on the data group to which the keypanel is connected. If the address switch is incorrectly set, the wrong panel ID displays. There is no need for this address if an AIO-16 card is used. Address setting is automatically generated when an AIO-16 card is used.

NOTE: When the keypanel is not scroll enabled, the Panel ID displays only the port number in the panel display window. When the keypanel is scroll enabled, the port number and port alpha are displayed.

To **display the panel ID**, do the following:

1. Starting at the Display menu, select **Panel ID**.
2. Press **SEL**.
   The Panel ID display appears showing the port number and alpha (if applicable) for the keypanel.

Display Menu, Solo

Solo displays all keys with the solo assignment. For more information on the solo assignment, see “Key Options Menu, Latching” on page 112.

To **display the Solo Key information**, do the following:

1. Starting at the Display menu, select **Solo**.
2. Press **SEL**.
   The Solo display appears showing solo keys in red.

   NOTE: You may only assign one (1) solo key at a time.

Display Menu, Version

Version displays the firmware version currently running on the keypanel.

NOTE: For firmware upgrades, contact customer service. The KP 12 CLD firmware can be upgraded through AZedit.

To **display the firmware version currently loaded on the keypanel**, do the following:

1. Starting at the Display menu, select **Version**.
2. Press **SEL**.
   The Version display appears showing firmware version for the keypanel.

Menu System, Key Assign Menu

The **Key Assign** menu, shown in Figure 28, is used to assign intercom key assignments and auto functions to keypanel keys.

Available options for this menu are:

Matrix (only in trunked systems)
Pt-to-Pt
Party Line
IFB
Special List
Sys Relay
Camera ISO
UPL
IFSL
Auto Func

FIGURE 28. Main Key Assign Menu

To **access the key assign menu options**, do the following:

1. Starting at the Key Assign menu, select the **key assignment** you want to assign.
2. Press **SEL**.
   A scroll list of available ports appears.

Key Assign Menu, Matrix (Trunked System Only)

Matrix only appears for trunked intercom systems. You must select a remote intercom matrix before assigning intercom keys to destinations in that matrix. You do not need to select matrix to assign keys to destinations in your own matrix. Also, you do not need to select matrix when assigning an auto function key to a matrix.

To **assign a remote assignment to the KP 12 CLD**, do the following:

1. Starting at the KeyAssign|Matrix menu, select a **remote intercom**.

2. Press **SEL**.
   A scroll list of available ports appears.
3. Using the arrow keys, select the **port** you want to assign to the keypanel key.

4. Press **SEL**.
   A list of auto-functions appear.
5. Using the arrow keys, select the **auto-function** you want to assign to the Pt-to-Pt assignment, if applicable.

6. Press **SEL**.
   Tap Key appears.
7. Press down on the **keypanel key position** where you want the Pt-to-Pt assignment to appear.
   The key color changes to teal and the alpha name appears on the key.

Key Assign Menu, Pt-to-Pt

Pt-to-Pt assigns a key that talks or listens to a another intercom port.

NOTE: Some Pt-to-Pt destinations may be non-keypanel devices that cannot activate talk and listen paths. Therefore, if you want full communication, you may need to assign both talk and listen on the key. For more information, see “Key Assign Menu, Auto Func” on page 106.

To **assign Pt-to-Pt to the keypanel key**, do the following:

1. Starting at the KeyAssign|**Pt-to-Pt** menu, select the **port** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear.
3. Using the arrow keys, select the **auto-function** you want to assign to the Pt-to-Pt assignment, if applicable.

4. Press **SEL**.
   Tap Key appears.
5. Press down on the **keypanel key position** where you want the Pt-to-Pt assignment to appear.
   The key color changes to teal, and the alpha appears on the key.

Key Assign Menu, Party Line

Party Line assigns a key that talks and/or listens to a party line. The key is not available until members have been assigned to the party line. This is done in AZedit.

NOTE: Party Line members are usually non-keypanel devices that cannot activate talk and listen paths. Therefore, if you want full communication, you may need to assign both talk and listen on the key. If all communications are normally 2-way, you may wish to assign the key as Talk+Auto Listen.

To **assign a Party Line to the keypanel key**, do the following:

1. Starting at the KeyAssign|**Party Line** menu, select the **party line** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear.
3. Using the arrow keys, select the **auto-function** you want to assign to the Party Line assignment, if applicable.
4. Press **SEL**.
   Tap Key appears.
5. Press down on the **keypanel key position** where you want the Party Line assignment to appear.
   The key color changes to pink and the alpha appears on the key.

Key Assign Menu, IFB

IFB assigns the IFB assignment type to a key. By default, all IFBs are restricted. You must select the appropriate scroll enable check box in AZedit, to see IFBs.

To **assign an IFB to the keypanel key**, do the following:

1. Starting at the KeyAssign|IFB menu, select the **IFB assignment** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear (see, Figure 29, "Auto Functions," on page 106).
3. Using the arrow keys, select the **auto-function** you want to assign to the IFB assignment, if applicable.
4. Press **SEL**.
   Tap Key appears.
5. Press down on the **keypanel key position** where you want the IFB assignment to appear.
   The key color changes to salmon and the alpha appears on the key.

Key Assign Menu, Spcl List

Spcl List assigns a key that talk and/or listens to a special list. The key is not available until members have been assigned to the special list in AZedit.

NOTE: Special List members can be non-keypanel devices that cannot activate talk and listen paths. Therefore, if you want full communication with all members of the special list, you may need to assign both talk and listen on the key.

To **assign a Special List to the keypanel key**, do the following:

1. Starting at the KeyAssign|Special List menu, select the **Special List** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear (see Figure 29, "Auto Functions," on page 106).
3. Using the arrow keys, select the **auto-function** you want to assign to the Special List assignment, if applicable.
4. Press **SEL**.
   Tap Key appears.
5. Press **down** on the keypanel key position where you want the Special List assignment to appear.
   The key color changes to green and the alpha appears on the key.

Key Assign Menu, Sys Relay

Sys Relay refers to any of several types of control devices that can exist in the intercom system, including:

- The 8 GPI outputs from an ADAM Frame (J11 on the XCP-ADAM-MC Breakout Panel).
- The 8 GPI outputs from an ADAM CS Frame (J903on the ADAM CS back panel).
- The relay outputs of an FR9528 Relay Frame (RELAY OUTPUTS connector on the FR9528 back panel).
- The 16 GPI outputs of a UIO-256 or GPIO-16 Frame (J5 on the UIO-256/GPIO-16 back panel).

To **assign a Relay to the keypanel key**, do the following:

1. Starting at the KeyAssign|Sys Relay menu, select the **relay** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear (see Figure 29, "Auto Functions," on page 106).
3. Using the arrow keys, select the **auto-function** you want to assign to the relay assignment, if applicable.
4. Press **SEL**.
   Tap Key appears.
5. Press down on the **keypanel key position** where you want the Relay assignment to appear.
   The key color changes to magenta and the alpha appears on the key.

Key Assign Menu, Camera ISO

Camera ISO assigns an **ISO** (isolate) assignment type to the key. By default, all ISOs are restricted. You must select the appropriate scroll enable check box in AZedit, to see ISOs.

To **assign a Camera ISO to the keypanel key**, do the following:

1. Starting at the KeyAssign|Camera ISO menu, select the **ISO** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear (see Figure 29, "Auto Functions," on page 106).
3. Using the arrow keys, select the **auto-function** you want to assign to the Camera ISO assignment, if applicable.
4. Press **SEL**.
   Tap Key appears.
5. Press down on the **keypanel key position** where you want the Camera ISO assignment to appear.
   The key color changes to dark yellow and the alpha appears on the key.

Key Assign Menu, UPL

UPL Resrc assigns a key the UPL resource assignment type to the key. By default, all UPL resources are restricted. You must select the appropriate scroll enable check box in AZedit, to see UPLs.

To **assign a UPL to the keypanel key**, do the following:

1. Starting at the KeyAssign|UPL menu, select the **UPL** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear (see Figure 29, "Auto Functions," on page 106).
3. Using the arrow keys, select the **auto-function** you want to assign to the UPL assignment, if applicable.
4. Press **SEL**.
   Tap Key appears.
5. Press down on the **keypanel key position** where you want the UPL assignment to appear.
   The key color changes to periwinkle and the alpha appears on the key.

Key Assign Menu, IFB SL

IFB SL (IFB Special List) is similar to a special list, except the members of these special lists are IFB assignments. IFB SLs are useful when a producer of a news program needs to talk to all the talent at the same time (most talent assignments are IFB assignments).

To **assign an IFSL to the keypanel key**, do the following:

1. Starting at the KeyAssign|IFSL menu, select the **IFSL** you want to assign to the keypanel key.

2. Press **SEL**.
   A list of auto-functions appear (see Figure 29, "Auto Functions," on page 106).
3. Using the arrow keys, select the **auto-function** you want to assign to the IFSL assignment, if applicable.
4. Press **SEL**.
   Tap Key appears.
5. Press down on the **keypanel key position** where you want the IFSL assignment to appear.
   The key color changes to brown and the alpha appears on the key.

Key Assign Menu, Auto Func

Auto Func assigns an auto function to the key. Auto functions assigned to a key stay with the key regardless of the assignment.

Available options for this menu are:

AF	Auto Follow for listen keys only.
AL	Auto Listen for listen keys only.
AM	Auto Mute for listen keys only.
AR	Auto Recip for listen keys only.
AC	All Call for talk level 1 only.
Dim	Dim Table function, for talk level 2 on point-to-point keys only.

FIGURE 29. Auto Functions

To **assign an Auto Function**, do the following:

1. Starting at the KeyAssign|**Auto Funcs** menu, select the **auto function** you want to assign to the keypanel key.
2. Press **SEL**.
   Tap Key appears.
3. Press the **keypanel key** to which you want to assign the auto function.

Menu System, Key Options Menu

The **Key Options Menu**, shown in Figure 30, is used to configure many of the KP 12 CLD keypanel operation options, such as auto dial functions, chime keys and duration, exclusive keys, key group assignments, solo key configuration, latching options, button lock and tally operation.

Available options for this menu are:

Auto Dial
Chime
Clear
Exclusive
Key Groups
Latching
Lock
Panel Swap
Solo
Tallies

FIGURE 30. Main Key Option Menu

Key Options Menu, Auto Dial

Auto Dial stores commonly used phone numbers in the auto dial list locally on the keypanel. You can access the local auto dial list from any CLD Color Display Keypanel or any of the KP 12 family keypanels.

NOTE: You can also create a centralized auto dial list which is stored on the Master Controller and maintained through AZedit. For more information, see “Centralized Auto Dials” on page 150.

You can configure *up to 100 stored auto dial numbers*.

In version 1.1.1 and later, it is now possible to configure 1-Touch TIF auto dial numbers. 1-Touch Auto Dials are configured using the locally stored numbers on the keypanel. Once a 1-Touch Auto Dial key is configured, pressing the configured key causes the TIF to go off-hook and auto dial the selected number.

To **store an auto dial number**, do the following:

1. Starting at the Key Options|Auto Dial menu, select **Numbers**.

2. Press **SEL**.
   #01:<empty> appears in the display window.

   NOTE: Use the up and down arrow keys, to scroll to the **auto dial entry** you want to use. There are up to 100 auto dial entries available.

3. Press **SEL**.
   #01: with a blinking cursor appears in the display window.
4. Using the keypanel keypad, enter the **phone number** you want to store (for example, 123456789).

IMPORTANT: Do not press SEL! This closes the menu.

5. On the KP 12 CLD keypad, press **FWD**.
   Save Number? appears in the display window.
6. Press the **SEL** button.
   The auto dial position number and telephone number appear in the display window.

To **delete a stored auto dial number**, do the following:

1. Starting at the Key Options|Auto Dial menu, select **Numbers**.

2. Press **SEL**.
   #01:<empty> appears in the display window.
3. Using the arrow keys, select the **Auto Dial number** you want to remove.
4. Press **SEL**.
   #01: with a flashing cursor appears.

   NOTE: #01 is used for example purposes only. Depending on the auto dial number you want to delete determines the number seen here.

5. Press **FWD**.
   Save Number? appears.
6. Press **SEL**.
   #01: <empty> appears in the display window. The auto dial number is erased.

To **configure a 1-touch auto dial key**, do the following:

1. Starting at the Key Options|Auto Dial menu, select **1-Touch**.
2. Press **SEL**.
   Tap Key appears.
3. Tap the **key** you want to put the TIF 1-Touch assignment.
   A scroll list of auto dial phone numbers appear.
4. Using the arrow keys, select the **phone number** you want to assign to the key.
5. Press the **CLR** button to exit out of Menu Mode.

NOTE: To hang up after using the 1-Touch key, you must use the TIF menu or assign Drop to a UPG key. For more information on UPG keys, see “User Programmable Key” on page 52.

Key Options Menu, Chime

Chime indicates a chime tone sounds on incoming call announcements for selected keypanel keys. You can configure the chime tone to activate for a specified amount of time after a call is received.

The range for this field is *5 seconds* to *30 seconds (increments of 5)*.

To **add a chime tone to keypanel keys**, do the following:

1. Starting at the Key Options|Chime menu, select **Keys**.
2. Press **SEL**.
   Tap Key appears in the display window.

3. Tap **down** on each keypanel key to which you want to add Chime.
   The selected keys turn red.

To **delete an existing chime on keypanel keys**, do the following:

4. Starting at the Key Options|Chime menu, select **Keys**.
5. Press **SEL**.
   Tap Key appears in the display window.
6. Tap **down** on each red keypanel key from which you want to remove the chime tone.
   The selected keys return to the unassigned state (light blue color).
7. Press **CLR** to exit the menu structure.

To **set the duration of the chime tone heard**, do the following:

1. Starting at the Key Options|Chime menu, select **Duration**.
2. Press **SEL**.
   The Min Duration scroll list appears.

3. Using the arrow keys, scroll to the **amount of time**, between 5 and 30 seconds, you want the chime to last.
4. Press **SEL**.
   The duration is configured.

Key Options Menu, Clear

The **Clear** menu option is used to clear any key options that have been assigned to a specific key or the clear the UPG button assignment.

To **clear a key's key options**, do the following:

1. Starting at the Key Options menu, select **Clear**.

2. Press **SEL**.
   Tap Key appears in the display window.
3. Tap the **key** you want to clear the key options from.
   The key options are removed from the keypanel key.
4. Press the **CLR button** to exit the menu structure.

Key Options Menu, Exclusive

Exclusive allows the user to set up a key that causes all other keys to turn off when activated. Unlike the solo option, when the exclusive option is deactivated, the keys turned off and do not turn back on. You can assign multiple exclusive keys.

To **create an exclusive key assignment**, do the following:

1. Starting at the Key Options menu, select **Exclusive**.
2. Press **SEL**.
   Tap Key appears in the display window.

3. Tap **down** on any keypanel key you want to assign the exclusive key option.
   The selected keys return to the unassigned state (light blue color).

To **remove an exclusive key assignment**, do the following:

1. Starting at the Key Options menu, select **Exclusive**.
2. Press **SEL**.
   Tap Key appears in the display window.
3. Tap **down** on each red keypanel key from which you want to remove the exclusive key option.
   The key display turns red.

Key Options Menu, Key Groups

Key Groups is used to create a key group. A key group allows the user to call a group of keypanels by activating one (1) key (the master key). When the master key is activated, all keys in the group become active.

You can create *up to four (4) key groups*.

To **create a key group**, do the following:

NOTE: Use the following instructions to create any of the four (4) key groups.

1. Starting at the Key Options|Key Groups menu, select the **Group** (1-4) you want to create.

2. Press **SEL**.
   Tap Master Key appears in the display window.
3. Tap **down** on the keypanel key you want to act as the master key.
   The selected key turns red and Tap Slave Key(s) appears in the display window.

4. Tap **down** on the keypanel keys you want to be activated when the master key is selected.
   The selected keys turn green.

To **delete a key group**, do the following:

1. Starting at the Key Options|Key Groups menu, select the **Group** (1-4) you want to delete.
2. Press the **SEL** button.
   Tap the Master Key appears in the display window.
3. Tap **down** on the red keypanel key you configured as the master key.
   The selected key returns to the unassigned state (light blue color) and Tap Slave Key(s) appears in the display window.
4. Tap **down** on the keypanel keys you want to be activated when the master key is selected.
   The selected keys turn green.

Key Options Menu, Latching

Latching is used to enable or disable the keypanel key to stay on when pressed. When Latching is enabled, the talk function stays on after the talk key is pressed. Otherwise, the talk function only works when the button is pressed.

By default, latching is enabled.

To **set latching on a keypanel key**, do the following:

1. Starting at the Key Options menu, select **Latching**.
2. Press **SEL**.
   Disabled and Enabled appear in the display window.

3. Using the up or down arrow key, select **Enabled** or **Disabled**.
   A blue arrow appears next to the selected option.

Key Options Menu, Lock (Button Lock)

Lock is used lock keypanel keys in the on or off position. Each key may be independently locked on or off.

To **lock a button on**, do the following:

1. Starting at the Key Options| menu, select **Lock**.

2. Press **SEL**.
   Tap Key appears.
3. Tap the **keypanel key** you want to lock on.
   The key turns green with white trim. This indicates the key is locked on. A red key indicates the key is locked off, which means the user cannot turn the key on or off.
4. Press **CLR** to exit the menu structure.

Key Options Menu, Panel Swap

Panel Swap gives users the ability to quickly and easily change a group of keypanel assignments on the keypanel. This is done through the use of virtual expansion panels. Virtual expansion panels use ports in the system, just like a physical keypanel or expansion panel. Panel swap differs from changing setup pages because the keys can stay active even when they are no longer visible on the main panel. Also, panel swap allows the user a 1-touch trigger to complete two (2) actions at once.

IMPORTANT: The number of actual physical keys on the keypanel and any attached actual physical expansion panel must be less than the numbers of available ports.

For example, the KP 32 CLD has 32 physical keys and the matrix has 64 ports; therefore, one (1) virtual EKP can be used.

However, a KP 32 CLD and an EKP 32 CLD has 64 physical keys. Virtual EKPs cannot be used unless the Intercom is configured for 96 or 128 ports.

Panel swap can be configured to a UPG key, a GPI Input, or GPI Output allowing local or remote access. A GPI board does not need to be installed to be controlled by GPI Outputs. However you must set up a Setup Page in AZedit for the virtual EKP to be able to assign key assignments.

TABLE 8. Number of Virtual EKPs supported with different keypanel and intercom configurations

Intercom configured for 64 keys	# of Virtual EKPs supported
KP 32 CLD	1
KP 32 CLD w/EKP 32 CLD	0
KP 12 CLD	3

Intercom configured for 96 keys	# of Virtual EKPs supported
KP 32 CLD	2
KP 32 CLD w/EKP 32 CLD	1
KP 32 CLD w/2xEKP 32 CLD	0
KP 12 CLD	5

Intercom configured for 128 keys	# of Virtual EKPs supported
KP 32 CLD	3
KP 32 CLD w/EKP 32 CLD	2
KP 32 CLD w/2xEKP 32 CLD	1
KP 32 CLD w/3xEKP 32 CLD	0
KP 12 CLD	7

Panel Swap Control Options

There are several control mechanisms to configure the way panel swap is engaged:

Keypad FWD

Keypad BACK

Keypad UPG

GPI In Opto 1, 2, 3, and 4

GPI Out OC Out 1 and 2

GPI Out Relay 1, 2, and 3

Configuration for Panel Swap

Once you set up the control, you then configure how to physically activate the panel swap. There are three (3) ways to configure the way in which to switch keypanel assignments from page to page.

Cycle To: Uses the FWD and BACK buttons to navigate to the key assignments.

Switch To: Used to switch to a specific panel – MAIN, EKP1, etc.

The following icon appears when the Main page is showing. MAIN

The following icon appears when the first virtual EKP is showing. EKP1 Subsequent virtual EKPs display their number in the icon.

Toggle To: Used to assign a pre-programmed key to switch to established pages.

Unassigned Used to erase the panel swap action from a trigger or control mechanism.

Panel Swap Key States

Key States define how the key assignment behaves when it does not appear in the display window. There are two (2) states available for a key to be configured:

Force Off: The key assignment is automatically terminated when the key assignment is not displayed.

Retain: The key assignment stays active even when the key assignment is not displayed.

When retain is selected and a key is not displaying, the following icon shows in the display window. VIRT

In the menu structure, under Panel Swap, the menu items Control and Key States appear, but are unavailable on the keypanel until one (1) or more virtual EKPs are assigned.

To **assign virtual keypanels**, do the following:

1. Starting at the Key Options|Panel Swap menu, select **Virtual EKPs**.
2. Press **SEL**.
   None, 1 EKP, 2 EKP, etc appear in the display window.

IMPORTANT: The number of virtual keypanels that appear in the selections depends on the number available ports you have.

3. Using the arrow keys, select **1 EKP**.

4. Press **SEL**.
   A blue arrow appears next to the selected option.
5. Press the **CLR** button to exit the menu.

To **configure how to access the virtual keypanel from the front of the keypanel**, do the following:

1. Starting at the Key Options|Panel Swap menu, select **Control**.

2. Press **SEL**.
   GPI Inputs, GPI Outputs, and Keypad appear in the display window.

3. Using the arrow keys, select **control mechanism** desired.
4. Press **SEL**.
   The appropriate sub-control mechanism appears (see "Panel Swap Control Options" on page 113).
5. Using the arrow keys, select the **sub-control mechanism**.
6. Press **SEL**.
   Cycle To, Switch To, Toggle To, and Unassigned appear in the display window.

7. Using the arrow keys, select the **keypanel action** desired.
8. Press **SEL**.
   A list of actions for the keypanel action appears in the display window (see "Configuration for Panel Swap" on page 114).
9. Using the arrow keys, select the **action** desired.
10. Press **SEL**.

    A blue arrow ▶ *appears next to the selected option.*
11. Press the **CLR** button to exit the menu.

To **configure the panel swap key states**, do the following:

1. Starting at the Key Options|Panel Swap menu, select **Key States**.

2. Press **SEL**.
   Force Off and Retain appear in the display window.

3. Using the arrow keys, select the **key state** you want to enable (see “Panel Swap Key States” on page 114).
4. Press **SEL**.
   A blue arrow ▶ *appears next to the selected option.*
5. Press the **CLR** button to exit the menu.

To **erase any programming from the panel swap configuration**, do the following:

1. Starting at the Key Options|Panel Swap menu, select **Control**.

2. Press **SEL**.
   GPI Inputs, GPI Outputs, and Keypad appear in the display window.

3. Using the arrow keys, select **control mechanism you want to erase**.
4. Press **SEL**.
   The appropriate sub-control mechanism appears (see “Panel Swap Control Options” on page 113).
5. Using the arrow keys, select the **sub-control mechanism you want to erase**.
6. Press **SEL**.
   Cycle To, Switch To, Toggle To, and Unassigned appear in the display window.

7. Using the arrow keys, select **Unassigned**.

8. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*
9. Press the **CLR** button to exit the menu.

Key Options Menu, Solo

Solo allows the user to set up a key that causes all other keys to turn off when activated. However, when the solo key is released, the keys that were turned off by the solo key turn back on.

You can assign only one (1) solo key.

To **create a solo key**, do the following:

1. Starting at the Key Options menu, select **Solo**.
2. Press **SEL**.
   Tap Key appears in the panel display.

3. Tap **down** on the keypanel key you want to configure as solo.
   The selected key turns red and Tap Slave Key(s) appears in the display window.

To **remove a solo key**, do the following:

1. Starting at the Key Options menu, select **Solo**.
2. Press **SEL**.
   Tap Key appears in the panel display.
3. Tap **down** on the red solo keypanel key from which you want to remove the solo assignment.
   The selected key turns red and Tap Slave Key(s) appears in the display window.

Key Options Menu, Tallies

FIGURE 31. Key Options Menu - Tallies Menu

Tallies are used to indicate incoming calls with blinking alpha assignments. You can configure tally time as 15 seconds or an indefinite period of time. If indefinite is chosen, the tally continues to blink until the call is answered.

By default, tallies are set to *15 seconds*.

To **set the tally time on an incoming call**, do the following:

1. Starting at the Key Options|Tallies menu, select **15 Seconds** or **Indefinite**.
2. Press **SEL**.

   A blue arrow ▶ *appears next to the selected option.*

Menu System, OMNEO Offers (Only available with OKI option card installed)

The **OMNEO Offers** menu item is used to configure the matrix connection when the OKI option card is installed. From this menu, you can also configure the OMNEO channels to be used for AUX Inputs.

FIGURE 32. OMNEO Offers Information Menu Option

OKI Option Card Matrix Port Configuration

With the OKI card installed in the CLD family of keypanels, you can have up to two (2) additional full-duplex audio channels that can be mixed with audio in the CLD keypanel.

NOTE: You can only have one (1) frame connection at a time.

To **configure an available OMNEO device connection port**, do the following:

1. Starting at the OMNEO Offers|Keypanel menu, select **OKI-2**.

2. Press **SEL**.
   A list of available OMNEO devices appears.
3. Using the arrow keys, select the **OMNEO device** you want to use.
   A blue arrow ▶ *appears next to the selected option.*
4. Press **CLR** to exit menu mode.

OKI Option Card Aux Port Configuration

NOTE: OMNEO channel 1 can be used for either the matrix connection or as an Aux Input/Output. However, it cannot be used as both at the same time.

To **configure the OMNEO channels as Aux Inputs**, do the following:

1. Starting at the OMNEO Offers|Keypanel menu, select **Aux Input**.

2. Press **SEL**.
   OMNEO Ch1 and OMNEO Ch2 appears in the display window.

3. Using the arrow keys, select **OMNEO Ch1** or **OMNEO Ch2**.
4. Press **SEL**.
   A list of available OMNEO offers appear in the display window.
5. Using the arrow keys, select the **OMNEO offer** you want to configure as an Aux Input.
6. Press **SEL**.
   The OMNEO Aux Input is configured.

Menu System, RVON Offers (Only available with the RVON-2 option card installed)

The **RVON Offers** menu item is used to configure the matrix connection when the RVON-2 option card is installed. It is also used to configure which RVON channels can be used for Aux Input.

FIGURE 33. RVON Offers Information Menu Option

RVON-2 Option Card Matrix Connection

NOTE: You can only have one (1) frame connection at a time.

There are three (3) ways to connect to the matrix:

AIO AIO-8, AIO-16, Cronus. When the AIO connection is used, both RVON Ch1 and Ch2 are available as Aux Input Channels. Use the Frame connection on the back panel of the keypanel.

RVON-2 RVON-16, RVON-8, RVON-C, RVON-I/O (in remote mode). You can only use RVON CH1 when connecting to the matrix using the RVON-1. Use the VoIP connection on the RVON-2 option card.

RVON-I/O RVON-16, RVON-8, RVON-C, and RVON-I/O (in local mode). Use the Frame connection on the back panel of the keypanel.

NOTE: For more information about RVON-I/O configuration, see the RVON-I/O user manual (F.01U.193.280).

RVON-2 Option Card Matrix Port Configuration

With the RVON-2 option card installed in the CLD family of keypanels, you can have up to two (2) additional full-duplex audio channels that can be mixed with audio in the CLD keypanel.

NOTE: RVON channel 1 can be used for either the matrix connection or as an Aux Input/Output. However, it cannot be used as both at the same time.

To **configure the Matrix connection port**, do the following:

1. Starting at the RVON Offers|Keypanel menu, select the **Matrix connection type** you want to use.

NOTE: If an RVON-I/O is connected to the keypanel, RVON-I/O replaces the AIO menu option.

2. Using the arrow keys, select the **port** you want to use.
A blue arrow appears next to the selected option.
3. Press **CLR** to exit menu mode.

RVON-2 Option Card Aux Port Configuration

To **configure the RVON channels as Aux Inputs**, do the following:

1. Starting at the RVON Offers|Aux Input menu, select **RVON Ch1** or **RVON Ch2**.

2. Press **SEL**.
A list of available RVON ports appear in the display window.
3. Using the arrow keys, select the **RVON port** you want to configure as an Aux Input.
4. Press **SEL**.
The RVON Aux Input is configured.

Menu System, Save Config

The **Save Config** menu option, shown in Figure 34, is used to save custom settings made in the Key Option or Service menus. Once you have made modifications to these menu options, you must run Save Cfg to store the custom settings in non-volatile memory. This ensures your custom settings are saved when the keypanel is powered down. You can run Reset Config (see “Service Menu, Reset Cfg” on page 139), to erase all custom settings..

FIGURE 34. Save Config Menu Option

To **run a save config**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Information menu appears.
2. Using the arrow keys, select **Save Config**.
3. Press **SEL**.
   Configuration Saved appears in the display window.

Menu System, Service

The information available for key assign is as follows:

Alphas
Aux/Mtx Inputs
Baud Rate
Display Dim
Footswitch
Key View
Keypad
Local GPIO
OMNEO Setup (Only Available if the OKI card is present)
Reset Cfg
RVON Setup (Only Available if the RVON card is present)
Scrn Saver
Set Address
Snoop Tally
Test Panel

FIGURE 35. Main Service Menu

Service Menu, Alphas

The **Alphas** menu is used to select the language the keypanel displays, as well as the character size appearing in the display window of the KP 12 CLD when using English. Languages available for selection are *English*, *Katakana*, and *Kanji*. For more information about the Katakana and Kanji menu structure differences, see “Japanese Mode – Katakana and Kanji” on page 205.

NOTE: When a Reset Cfg is performed, the Alphas and Poll ID do not get reset.

Minimum firmware revision requirements for Cyrillic support[1] are:

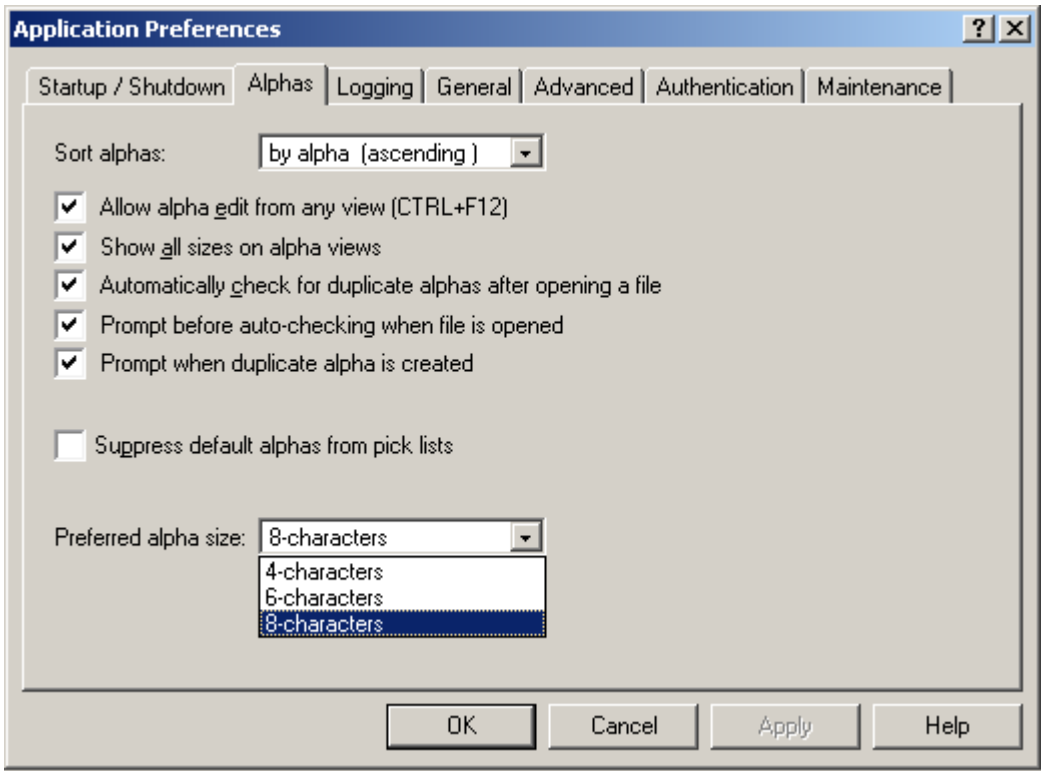
- MCII-e v2.4.0 or later
- AIO-8 v10.5.0 or later
- AIO-16 v1.3.0 or later
- Cronus v1.8.0 or later
- Zeus III v1.3.0
- KP 32 CLD v1.3.0 or later
- KP 12 CLD v1.1.0
- KP812-U v1.0.0
- KP12/4U v1A.0.25C (Cyrillic character set only)
- Font file KP32-CLD-UNICODE.KPF v0.05

NOTE: Cyrillic, Katakana and Kanji modes can be run on Unicode intercoms only.

Available options are:

4 Chars
6 Chars
8 Chars
8 Chars (Unicode)

IMPORTANT: When using an AIO-8, AIO-16 with a SCSI connector or a Zeus Intercom System, only keypanels with the same alpha size can be used. Go to the Alphas page in the Application Preferences notebook (in AZedit, *Options*|*Preferences*|*Alphas*) to set the alpha size in AZedit. For more information, see the AZedit User Manual.



1. *To use Cyrillic mode, you must configure AZedit to support it. For more information, see “Cyrillic Support” on page 205.*

To **set the character size and keypanel language**, do the following:

1. Starting at the Service|Alphas menu, select **4 Chars, 6 Chars, 8 Chars,** or **8 Chars (Unicode)**.

2. Press **SEL**.
   Japanese and Standard appear in the display window.
3. Using the arrow keys, select the **Language**.
4. Press **SEL**.
   Cancel and Save and Restart appear in the display window.

5. Using the arrow keys, select **Save and Restart**.
6. Press **SEL**.
   The keypanel restarts itself.

Service Menu, Aux/Mtx Inputs

Aux/Mtx Inputs enables or disables the control for audio input through the front panel encoder. The KP 12 CLD has three (3) Aux Input connectors on the back panel of the unit. See the “KP 12 CLD Block Diagram” on page 13.

By default, Matrix In is *enabled*.

NOTE: This feature is only enabled if the GPI 12 CLD option card is installed.

To **enable/disable the aux/mtx inputs**, do the following:

1. Starting at the Service|Aux/Mtx Inputs menu, select **Aux In 1**, **Aux In 2**, **Aux In 3**, **Matrix In**, **RVON Ch1** or **RVON Ch2.**
2. Press **SEL**.
   Disabled and Enabled appear in the display window.
3. Using the arrow keys, select **Enabled** to enable the selected Aux Input.
   OR
   Select **Disabled** to disable the selected Aux Input.

Service Menu, Baud Rate

Baud Rate indicates the baud rate at which data is transmitted to the matrix.

Available selections for this field are:

Auto Baud	the baud rate is determined automatically by the Matrix.
9600 Baud (default)	
76.8K Baud	

To **set the baud rate**, do the following:

1. Starting at the Service|Baud Rate menu, select the **baud rate** you want to use.

   A blue arrow ▶ *appears next to the option currently selected.*

2. Press **SEL**.

Service Menu, Display Dim

Display Dim displays the percentage of brightness of the keypanel display.

Available selections for this menu are *35% brightness* up to *100% brightness* (set in increments of 5).
By default, the keypanel brightness is set to *40%.*

You can configure this option one (1) of three (3) ways:

All Panels	allows you to set the brightness for all panels connected to the keypanel.
Expansion	allows you to set the brightness for only the main keypanel. You can set the brightness for the left display window, the right display window, or both display windows.
Main Panel	allows you to set the brightness for only the main keypanel. You can set the brightness for the left display window, the right display window, or both display windows.

To **set the display brightness on all panels**, do the following:

1. Starting at the Service|Display Dim menu, select **All Panels**.
   Brightness: [X]% (where X represents a number from 35 to 100) appears in the display window.
2. Using the scroll arrows ▲▼, adjust the **brightness** (35% to 100%) you want the keypanel to display.
3. Press **CLR** to exit the menu system.

To **set the keypanel brightness for the main panel**, do the following:

NOTE: Use these instructions to set the brightness for any expansion panels you want to set.

1. Starting at the Service|Display Dim menu, select **Main Panel**.
2. Press **SEL**.
   Both, Left and Right appear in the display window.
3. Using the arrow keys, select **Both, Left,** or **Right**.
   Brightness: [X]% (where X represents a number from 35 to 100) appears in the display window.
   - *Both* adjusts both the left and right display windows on the keypanel or the expansion panel.
   - *Left* adjusts the left display window on the keypanel or the expansion panel.
   - *Right* adjusts the right display window on the keypanel or the expansion panel.
4. Using the scroll arrows ▲▼, adjust the **brightness** (35% to 100%) you want the keypanel to display.
5. Press **CLR** to exit the menu system.

Service Menu, Footswitch

Footswitch allows the user to enable the footswitch feature. A footswitch is a foot-triggered switch used to activate keypanel assignments.

By default, the Footswitch is *disabled*.

	Footswitch Active	The footswitch is active.
	Footswitch Enabled	The footswitch is enabled, but not active. **NOTE:** When a talk key is latched while the Footswitch is enabled, the key display turns amber ■ to signify that it is waiting for footswitch activity.

To **enable the footswitch**, do the following:

1. Starting at the Service|Footswitch menu, select **Enabled**.
2. Press **SEL**.

   A blue arrow ▶ appears next to Enabled. When Footswitch is enabled, a green footswitch appears on the right side of the left display window.

To **disable the footswitch**, do the following

1. Starting at the Service|Footswitch menu, select **Disabled**.
2. Press **SEL**.

   A blue arrow ▶ appears next to Disabled.

Service Menu, Key View

Key View allows the user to set the key view for the keypanel. You can set the keypanel to display only Talk keys, Talk/Listen Keys or Suppress AF (suppress auto follow) keys.

By default, *Suppress AF* is selected.

To **set the key view**, do the following:

1. Starting at the Service|Key View menu, select **Talk Only** to show only talk keys.
   OR
   Select **Talk/Listen** to show talk and listen keys.
   OR
   Select **Suppress AF** to hide auto functions of the key assignments.
2. Press **SEL**.

   A blue arrow ▶ *appears next to selected option*.

   NOTE: When Talk/Listen is selected, the keypanel keys shows the listen assignment on top and talk assignment on the bottom of the key.

Service Menu, Keypad

Keypad is used to set the keypad sequence to be used with the keypanel and to set the backlight options.

FIGURE 36. Service Menu - Keypad Options

Keypad Sequence

Keypad Sequence is used to select the type of keypad you want to use on the KP CLD unit.

Available selections for this option are *Classic* and *Standard*.

For more detailed information, see “KP 12 CLD Keypad Quick Reference” on page 155.

To **set the keypad sequence for the keypanel**, do the following:

1. Starting at the Service|Keypad menu, select **Sequences**.
2. Press **SEL**.
   Classic (default) and Standard appear on the display window.

3. Using the arrow keys, select **Standard** for the standard keypad sequence.
   OR
   Using the arrow keys, select **Classic** for the classic keypad sequence.
   A blue arrow appears next to the selection.

SEL Key

The **SEL Key** menu allows the user to choose how the SEL or PGM key functions. There are two (2) types of keypads available: Standard and Classic. With the standard keypad, this menu allows you to set up the SEL key functionality. With the classic keypad, this menu allows you to set up the PGM key functionality.

Available selections for this field are:

Auto (default)	The key function is automatically selected based on whether you are in English or Japanese alpha mode. In English mode, the SEL/PGM key is assigned Assignment Group functionality, while in Japanese mode, the SEL/PGM key is assigned Quick Assign functionality.
Assignment Groups	The key function is given Assignment Groups. This displays the scroll lists of a collection of user-selectable key assignments. When you select a group, a scroll list of the members of the group appear, which then can be called or programmed onto a key. For more information, see “Assignment Groups Page” on page 57.
Quick Assign	The key function is given Quick Assign. When you configure the SEL/PGM key with Quick Assign, you are actually selecting your most used key type, for example, P-P with AL. When the SEL/PGM key is pressed with a quick assign configured to it, a menu appears with Assign or Clear. The user can then quickly configure a key with a pre-configured assignment by selecting Assign, or clear the key assignment by selecting Clear.

Backlight

Available selections for this field are:

Activate (default)	When Activate is selected, the backlight activates when the user presses any keypad key on the keypanel. This action is not part of the key sequence, but simply a way to activate the backlight on the keypad.
Always Off	The keypad backlight is always off.
Always On	The keypad backlight is always on.

NOTE: When the keypanel menu is not active, the backlight stays lit for five (5) seconds of inactivity before shutting off. However, when the keypanel menu is active, the backlight stays lit for one (1) minute before exiting the menu system and shutting off.

To **set the keypad backlight option**, do the following:

1. Starting at the Service|Keypad menu, select **Backlight**.
2. Press **SEL**.
   Activate (default), Always Off, and Always On appear in the display window.

3. Using the arrow keys, select **Always On** to have the keypad backlight always on.
   OR
   Using the arrow keys, select **Always Off** to have the keypad backlight never on
   OR
   Using the arrow keys, select **Activate** to have the keypad turn on when the keypad is pressed.

Service Menu, Local GPIO

Local GPIO is used to assign GPIO inputs and outputs. You can only use this option if your KP 12 CLD has an optional Connector Module. Inputs can be assigned to activate intercom keys (including group master keys and a solo key). Outputs can be activated by intercom keys.

NOTE: This feature is only enabled if the GPI 12 CLD option card is installed.

To **setup GPIO talk key**, do the following:

1. Starting at the Service|Local GPIO menu, select **GPIO Inputs**.

2. Press **SEL**.
   Opto 1, Opto 2, Opto 3, and Opto 4 appear in the display window.
3. Using the arrow keys, select **Opto 1**, **Opto 2**, **Opto 3**, or **Opto 4**.
4. Press **SEL**.
   Key Group, Not Assigned, and Talk Key appear in the display window.

5. Using the arrow keys, select **Talk Key**.
   Tap Key appears in the display window.
6. Tap the **talk key** you want to assign the GPIO Input.
   The selected keypanel key turns red.

To **setup GPIO inputs key groups**, do the following:

1. Starting at the Service|Local GPIO menu**,** select **GPIO Inputs**.
2. Press **SEL**.
   Opto 1, Opto 2, Opto 3, and Opto 4 appear in the display window.
3. Using the arrow keys, select **Opto 1**, **Opto 2**, **Opto 3**, or **Opto 4**.
4. Press **SEL**.
   Key Group, Not Assigned, and Talk Key appear in the display window.
5. Using the arrow keys, select **Key Group**.

6. Press **SEL**.
   A list of Key Groups appear in the display window.

7. Using the arrow keys, select the **group** you want to assign the GPIO Input to.
   A blue arrow ▶ *appears next to the selected option.*

To **setup a GPIO outputs talk key**, do the following:

1. Starting at the Service|Local GPIO menu, select **GPIO Outputs**.
2. Press **SEL**.
   OC Out 1, OC Out 2, Relay 1, Relay 2, and Relay 3 appear in the display window.

3. Using the arrow keys, select **Relay 1**, **Relay 2**, **Relay 3**, **OC Out 1**, or **OC Out 2**.
4. Press **SEL**.
   Not Assigned, Talk Key, UPG 1 appear in the display window.
5. Using the arrow keys, select **Talk Key**.
6. Press **SEL**.
   Tap Key appears in the display window.
7. Tap the **key** you want to assign the GPIO Output assignment.
   The selected keypanel key turns red.

Service Menu, OMNEO Setup

The **OMNEO Setup** menu option is used to configure the OKI's device name, enable DHCP, and address the OKI card for the CLD keypanel.

IMPORTANT: When making changes to the OKI device name and IP Address at the keypanel, you must make the same changes in AZedit or IPedit before the connection is made. For example, if you configure all of your devices in either AZedit or IPedit before putting the matrix on the network. Once the keypanels have been configured and the matrix is put on the network, the connections will automatically be made. Making the change at the keypanel alone does not automatically update the configuration on the matrix.

To **enable DHCP from the keypanel**, do the following:

1. Starting at the Service|OMNEO Setup menu, select **OKI-2**.

2. Press **SEL**.
   Device Name, DHCP, and IP Parameters appear in the display window.

3. Using the arrow keys, select **DHCP**.
4. Press **SEL**.
   Disabled and Enabled appear in the display window.
5. Using the arrow keys, select **Enabled**.
6. Press the **CLR** button to exit the menu

To **configure the OKI's device name**, do the following:

1. Starting at the Service|**OMNEO Setup** menu, select **OKI-2**.

2. Press **SEL**.
   Device Name, DHCP, and IP Parameters appear in the display window.
3. Using the arrow keys, select **DHCP**.
4. Press **SEL**.
   Disabled and Enabled appear in the display window.
5. Verify **DHCP is disabled**.

   NOTE: When making changes to the OMNEO device, DHCP must be disabled before changing the name or IP Address.

6. Press **BACK**.
   Device Name, DHCP, and IP Address appear in the display window.

7. Using the arrow keys, select **Device Name**.
   The name of the OKI card appears in the display window with the first character of its name blinking.

8. Using the arrow keys, scroll through the **characters** to the character you want to assign.
9. Press **SEL**.
   The focus moves to the next letter.
10. Repeat **steps 8** and **9** until you have modified the device name.
11. Press **FWD**.
    The message Save Name? appears on the display window.
12. Press **SEL**.

To **configure the OKI IP parameters**, do the following:

1. Starting at the Service|OMNEO Setup menu, select **OKI-2**.
2. Press **SEL**.
   Device Name, DHCP, and IP Parameters appear in the display window.

3. Using the arrow keys, select **IP Parameters**.
4. Press **SEL**.
   IP Address, Gateway, Netmask, Domain, DNS Server 1, and DNS Server 2 appear in the display window.

5. Press **SEL**.
   The IP Address appears with the first octet blinking in the display window.
6. Using the number pad, enter the **first octet number** in the IP Address.
7. Press **SEL**.
   The focus shifts to the second octet.
8. Using the number pad, enter the **second octet number** in the IP Address.
9. Press **SEL**.
   The focus shifts to the third octet.

10. Using the number pad, enter the **third octet number** in the IP Address.
11. Press **SEL**.
    The focus shifts to the last octet.
12. Using the number pad, enter the **last octet number** in the IP Address.
13. Press **SEL**.
    The OMNEO Setup menu options appear in the display window.

To **configure the Gateway Address**, do the following:

1. Using the arrow keys, select **Gateway**.

2. Press **SEL**.
   The Gateway Address appears with the first octet blinking in the display window.
3. Using the number pad, enter the **first octet number** in the Gateway Address.
4. Press **SEL**.
   The focus shifts to the second octet.
5. Using the number pad, enter the **second octet number** in the Gateway Address.
6. Press **SEL**.
   The focus shifts to the third octet.
7. Using the number pad, enter the **third octet number** in the Gateway Address.
8. Press **SEL**.
   The focus shifts to the last octet.
9. Using the number pad, enter the **last octet number** in the Gateway Address.
10. Press **SEL**.
    The RVON Setup menu options appear in the display window.

To **configure the Netmask Address**, do the following:

1. Using the arrow keys, select **Netmask**.

2. Press **SEL**.
   The Netmask Address appears with the first octet blinking in the display window.
3. Using the number pad, enter the **first octet number** in the Netmask Address.
4. Press **SEL**.
   The focus shifts to the second octet.
5. Using the number pad, enter the **second octet number** in the Netmask Address.
6. Press **SEL**.
   The focus shifts to the third octet.
7. Using the number pad, enter the **third octet number** in the Netmask Address.
8. Press **SEL**.
   The focus shifts to the last octet.
9. Using the number pad, enter the **last octet number** in the Netmask Address.

10. Press **SEL**.
    The RVON Setup menu options appear in the display window.
11. Press **CLR** to exit menu mode.

To **configure the Domain name**, do the following:

1. Using the arrow keys, select **Domain**.

2. Press **SEL**.
   The domain name appears with the first character blinking in the display window.

3. Using the arrow keys, scroll through the **characters** to the character you want to assign.
4. Press **SEL**.
   The focus moves to the next letter.
5. Repeat **steps 3** and **4** until the domain is named.
6. Once finished, press the **FWD** button.
   Save Name? appears in the display window.
7. Press the **SEL** button to accept.
   OR
   Press the **BACK** button to return to the configuration screen.
   OR
   Press the **CLR** button to exit the menu completely.

To **configure DNS 1**, do the following:

1. Using the arrow keys, select **DNS Server 1**.

2. Press **SEL**.
   The DNS 1 Server Address appears with the first octet blinking in the display window.
3. Using the number pad, enter the **first octet number** in the DNS Address.
4. Press **SEL**.
   The focus shifts to the second octet.
5. Using the number pad, enter the **second octet number** in the DNS Address.
6. Press **SEL**.
   The focus shifts to the third octet.
7. Using the number pad, enter the **third octet number** in the DNS Address.
8. Press **SEL**.
   The focus shifts to the last octet.
9. Using the number pad, enter the **last octet number** in the DNS Address.
10. Press **SEL**.
    The OMNEO Setup menu options appear in the display window.
11. Press **CLR** to exit menu mode.

To **configure DNS 2**, do the following:

1. Using the arrow keys, select **DNS Server 2**.

2. Press **SEL**.
   The DNS 2 Server Address appears with the first octet blinking in the display window.
3. Using the number pad, enter the **first octet number** in the DNS Address.
4. Press **SEL**.
   The focus shifts to the second octet.
5. Using the number pad, enter the **second octet number** in the DNS Address.
6. Press **SEL**.
   The focus shifts to the third octet.
7. Using the number pad, enter the **third octet number** in the DNS Address.
8. Press **SEL**.
   The focus shifts to the last octet.
9. Using the number pad, enter the **last octet number** in the DNS Address.
10. Press **SEL**.
    The OMNEO Setup menu options appear in the display window.
11. Press **CLR** to exit menu mode.

Service Menu, Reset Cfg

Reset Cfg restores all custom settings to the defaults and erases all stored auto-dial numbers.

To **reset the keypanel configuration**, do the following:

1. Starting at the Service|Reset Cfg menu, select **Do Reset**.

2. Press **SEL**.
   Configuration Reset appears in the display window.

Service Menu, RVON Setup

The **RVON Setup** menu option is used to configure the RVON-2 and/or RVON-I/O IP Address for the CLD keypanel.

NOTE: The following instructions show how to configure the RVON-2 Network Address. You can also use these instructions to configure the RVON-I/O Address as well.

To **configure the IP Address for the RVON-2**, do the following:

1. Starting at the Service|RVON Setup menu, select **RVON-2**.
2. Press **SEL**.
   IP Address, Gateway, and Netmask appear in the display window.

3. Using the arrow keys, select **IP Address**.

4. Press **SEL**.
   The IP Address appears with the first octet blinking in the display window.
5. Using the number pad, enter the **first octet number** in the IP Address.

6. Press **SEL**.
   The focus shifts to the second octet.
7. Using the number pad, enter the **second octet number** in the IP Address.
8. Press **SEL**.
   The focus shifts to the third octet.
9. Using the number pad, enter the **third octet number** in the IP Address.
10. Press **SEL**.
    The focus shifts to the last octet.
11. Using the number pad, enter the **last octet number** in the IP Address.
12. Press **SEL**.
    The RVON Setup menu options appear in the display window.

To **configure the Gateway Address**, do the following:

1. Using the arrow keys, select **Gateway**.

2. Press **SEL**.
   The Gateway Address appears with the first octet blinking in the display window.
3. Using the number pad, enter the **first octet number** in the Gateway Address.
4. Press **SEL**.
   The focus shifts to the second octet.
5. Using the number pad, enter the **second octet number** in the Gateway Address.
6. Press **SEL**.
   The focus shifts to the third octet.
7. Using the number pad, enter the **third octet number** in the Gateway Address.
8. Press **SEL**.
   The focus shifts to the last octet.
9. Using the number pad, enter the **last octet number** in the Gateway Address.
10. Press **SEL**.
    The RVON Setup menu options appear in the display window.

To **configure the Netmask Address**, do the following:

1. Using the arrow keys, select **Netmask**.

2. Press **SEL**.
   The Netmask Address appears with the first octet blinking in the display window.
3. Using the number pad, enter the **first octet number** in the Netmask Address.
4. Press **SEL**.
   The focus shifts to the second octet.
5. Using the number pad, enter the **second octet number** in the Netmask Address.

6. Press **SEL**.
   The focus shifts to the third octet.
7. Using the number pad, enter the **third octet number** in the Netmask Address.
8. Press **SEL**.
   The focus shifts to the last octet.
9. Using the number pad, enter the **last octet number** in the Netmask Address.
10. Press **SEL**.
    The RVON Setup menu options appear in the display window.
11. Press **CLR** to exit menu mode.

Service Menu, Scr Saver

Scr Saver allows the user to configure the way the screen saver feature operates.

FIGURE 37. Service Menu - Screen Saver Options

Available selections for this menu are:

Activate	allows the user to activate the screen saver with no delay.
Delay	can be set to activate the screen saver after 30 minutes or up to 12 hours.
Mode	can be set to scroll text or shut the display off (sleep mode).

The default setting for this option is:

Delay	*One (1) hour*
Mode	*Text*

NOTE: Any action done to the keypanel, directly or indirectly, takes the keypanel out of screen saver mode.

To **manually activate the screen saver**, do the following:

1. Starting at the Service|**Scrn Saver** menu, select **Activate**.

2. Press **SEL**.
   The screen saver is activated on the keypanel display window.

To **set the delay option for the keypanel screen saver**, do the following:

1. Starting at the Service|Scrn Saver menu, select **Delay**.
2. Press **SEL**.

   Delay Time: 1 Hour ▲▼ *appears.*

3. Using the arrow keys, select the **amount of time** you want to expire before the screen saver activates.

To **set the screen saver mode (type)**, do the following:

1. Starting at the Service|Scrn Saver menu, select **Mode**.
2. Press **SEL**.
   Display Off and Text appear in the display window.

3. Using the arrow keys, select **Display Off** to put the display into sleep mode when the screen saver activates.
   OR
   Using the arrow keys, select **Text** to have scrolling text when the screen saver activates.

Service Menu, Set Address

Set Address is used to indicate the poll ID of the KP 12 CLD. See “KP 12 CLD Addressing” on page 31 to determine if you need to set the KP 12 CLD address. The poll ID is the number (or address) at which audio is sent to and from the keypanel to the Matrix. The Poll ID number is directly related to the connection port on the breakout panel.

EXAMPLE: If the KP 12 CLD is connected to the breakout panel on J2, the poll ID for the keypanel is 2.

Available options for the Poll ID are *1–8*.

To **set the address for the KP 12 CLD**, do the following:

1. Starting at the Service|Set Address menu, select the **poll ID** for the keypanel.
2. Press **SEL**.
   Cancel or Save and Restart appear in the display window.

3. Using the arrow keys, scroll to **Save and Restart**.

4. Press **SEL**.
   Restarting.... appears. The keypanel resets. Once the restart is complete, the Poll ID is enabled.

Service Menu, Snoop Tally

Snoop Tally, when enabled indicates to keypanel users that somebody is listening to them. For example, snoop tallies are displayed on keypanel 1, if there is another keypanel (2) which is listening to keypanel 1 via a point-to-point or a special list, but is not talking to keypanel 1. Snoop tallies are suppressed if keypanel 1 has any talk keys turned on, or if the hot mic is not enabled. Snoop tallies are supported on KP-32 family keypanels.

NOTE: Hot Mic must be activated on the keypanel for snoop tally to work. For more information, see “Audio Options Menu, Matrix Out” on page 86.

By default, snoop tally is *disabled* (no chime).

To **enable snoop tallies on the keypanel**, do the following:

1. Starting at the Service|Snoop Tally menu, select **Chime**.

2. Press **SEL**.

   A blue arrow ▶ *appears next to Chime. Snoop Tally is enabled.*

To **disable snoop tallies on the keypanel**, do the following:

3. Starting at the Service|Snoop Tally menu, select **No Chime.**

4. Press **SEL**.

   A blue arrow ▶ *appears next to No Chime. Snoop Tally is disabled.*

Service Menu, Test Panel

Test Panel allows the user to check the operation of all keys and displays, as shown in, on the KP 12 CLD.

FIGURE 38. Service Menu, Test Panel

TABLE 9. Test Panel Key Descriptions

Display	*Action*
	All alpha numeric displays show a % symbol when in Test Panel mode.
	Press down on any key.
	Press up on any key.
	Press to the right on any key (excluding the MIC MUTE/MIC SEL and CLR/CWW).
	Press to the left on any key (excluding the MIC MUTE/MIC SEL. and CLR/CWW).
<-AUX>	Rotate the Aux Volume encoder knob counterclockwise.
<+AUX>	Rotate the Aux Volume encoder knob clockwise.
<-MAIN>	Rotate the Main Volume encoder knob counterclockwise.
<+MAIN>	Rotate the Main Volume encoder knob clockwise.
<-MIC>	Press left on the MIC MUTE/MIC SEL. key.
<+MIC>	Press right on the MIC MUTE/MIC SEL. key.
<MUTE>	Press up on the MIC MUTE/MIC SEL. key.
<MIC>	Press down on the MIC MUTE/MIC SEL key.
<-CWW>	Press left on the CLR/CWW key.
<+CWW>	Press right on the CLR/CWW key.
<CLR>	Press up on the CLR/CWW key.
<CWW>	Press down on the CLR/CWW key.
<Menu>	Press the MENU button.
<Fwd>	Press the FWD button.
<Back>	Press the BACK button.
<UPG>	Press the UPG button.

To **enable the test panel**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Information menu appears.
2. Using the arrow keys, select **Service**.
3. Press **SEL**.
   The Service submenu appears in the display window.
4. Using the arrow keys, select **Test Panel**.
5. Press **SEL**.
   The Test Panel display appears.
6. Using Table 9 on page 145, test the **KP 12 CLD keys**.

APPENDIX 6

Telephone Operation

NOTE: Telephone operation requires an optional **TIF** (Telephone Interface). You must assign an intercom key to talk/listen to the TIF. We recommend a talk + auto follow assignment. See the TIF User Manual for specific TIF configuration options. You can find this manual at www.rtsintercoms.com

Receiving A Phone Call

When there is an incoming telephone call, the TIF alpha begins to blink.

To **receive a phone call**, do the following:

> Press the calling keypanel **key** to answer the call.

NOTE: The TIF assignments tally when the phone is ringing. By default, the assignments also tally while the phone is off-hook. This operation can be disabled by selecting *Don't generate tallies for TIF or trunk use* check box in AZedit (*Options*|*Intercom Configuration*|*Options* tab).

Dialing and Hanging Up Using KP 12 CLD

NOTE: Auto Dial only appears in the TIF menu options when auto dial numbers are configured.

Manual Dial

To **manually dial on the KP 12 CLD**, do the following:

1. On the KP 12 CLD, press the **TIF** key up to turn listen on.
2. Press the **TIF** key down to turn the Talk key on.
   Auto Dial, Hang Up, Manual Dial, and Redial appear in the display.
3. Using the up or down key, select **Manual Dial**.

4. Press **SEL**.
   Dial: appears in the display.
5. Using the keypad, dial the **number** you want to call.

6. Press **SEL**.
   The call is placed.

Keypanel Hang Up

To **hang up the telephone from the KP 12 CLD**, do the following:

1. On the KP 12 CLD, press the **TIF** key down to turn it on.
   Auto Dial, Hang Up, Manual Dial, and Redial appear in the display.
2. Using the up or down key, select **Hang Up**.

3. Press **SEL**.
   The call is disconnected.

To **program a CLD UPG key to activate the TIF key**, do the following:

1. In Default mode, press **0**.
   OR
   In Classic mode, press **4**.
   Dial and Drop appear in the display.
2. Using the up or down key, select **Dial**.
   Tap Key appears in the display.
3. Press and hold the desired **UPG button** (1 or 2) to which you want to program the TIF activation.
   The message Menu position saved appears and the TIF activation is assigned to the key.

To **program a CLD UPG key to hang up the TIF key**, do the following:

1. In Default mode, press **0**.
   OR
   In Classic mode, press **4**.
   Dial and Drop appear in the display.
2. Using the up or down key, select **Drop**.
   Tap Key appears in the display.
3. Press and hold the desired **UPG button** (1 or 2) to which you want to program Hang Up.
   The message Menu position saved appears and the TIF activation is assigned to the key.

To **redial a phone number on the KP 12 CLD**, do the following:

1. On the KP 12 CLD, press the **TIF listen** key on.
2. On the KP 12 CLD, press the **TIF talk** key on.
   Auto Dial, Hang Up, Manual Dial, and Redial appear in the display.
3. Using the up or down key, select **Redial**.

4. Press **SEL**.
   The last dialed number is connected. The TIF key alpha flashes and Hang Up appears in the display.

5. Press **SEL** to disconnect the call.
   The call is ended.

Auto Dial

To **autodial a phone number on the KP 12 CLD**, do the following:

1. On the KP 12 CLD, press the **TIF listen** key on.
2. On the KP 12 CLD, press the **TIF talk** key on.
   Hang Up, Icom ADial, Lcl ADial, Manual Dial, Redial appear in the display.
3. Using the up or down key, select **Auto Dial**.

4. Press **SEL**.
   The Auto Dial numbers appear in the display.

5. Using the up or down key, select the **Auto Dial number** you want to call.
6. Press **SEL**.
   The call is placed. The TIF key alpha flashes and Hang Up appears in the display.

Centralized Auto Dials

The **Centralized Auto Dials** allows up to 999 phone numbers to be stored in the intercom as a scrollable list from the keypanels. Auto dials are telephone numbers frequently dialed and are maintained using the AZedit Intercom Configuration Software. Customizing auto dial numbers in AZedit is as easy as entering the telephone number and selecting whether or not it is scroll enabled.

The following firmware versions must be loaded to use centralized auto dials in your intercom system:

- AZedit Intercom Software V3.6.1 or later
- MCII-e V2.0.4 or later
- PeriphII-e (Ethernet) V1.20.0 or later
- Periph Controller (Standard) V10.20.0 or later
- DBX V1.20.0 or later
- Cronus Firmware V1.5 or later
- Zeus II Firmware V3.4.0 or later
- Zeus III Firmware V1.0.0 or later
- KP 12 CLD Firmware V1.0.4 or later
- KP-32 Firmware V2.1.1 or later

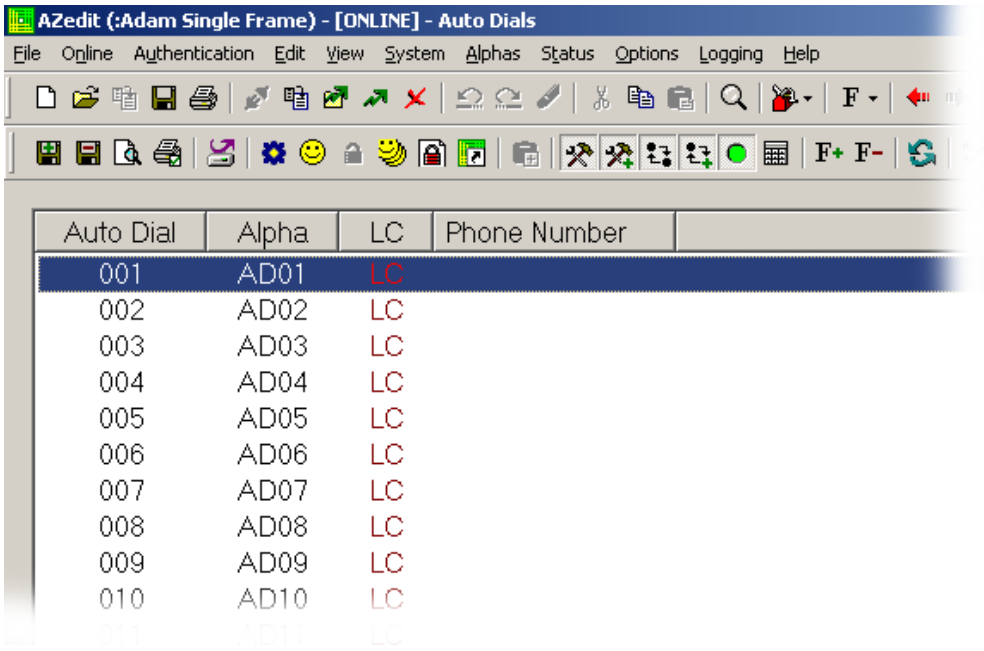
Centralized Auto Dial from the KP 12 CLD

The **Centralized Auto Dial** can be used two (2) different ways, with TIF assignments or with keypad sequences. You can also configure locally stored auto dial numbers on the CLD keypanel. For more information, see “Key Options Menu, Auto Dial” on page 107.

NOTE: The KP-32 standard keypanel supports centralized auto dial numbers on firmware version 2.1.1 or later.

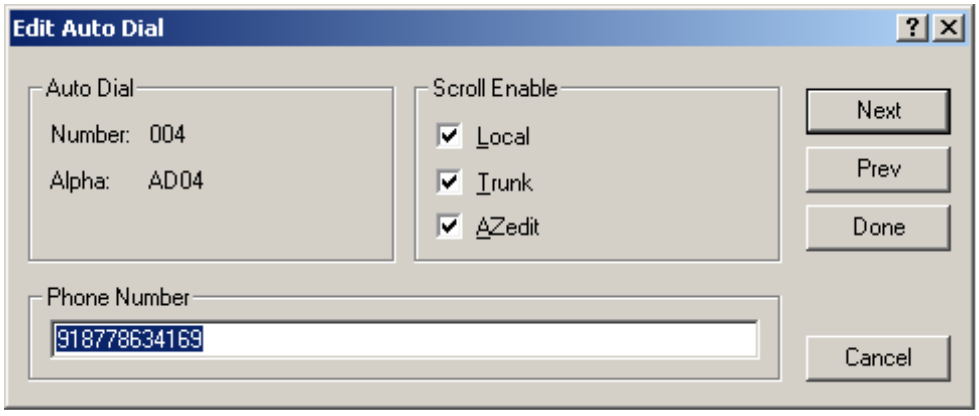
To **access the Auto Dials window**, do the following:

> From the System menu in AZedit, select **Auto Dial**.
The Auto Dials window appears.



To **add a telephone number to the Auto Dial database**, do the following:

1. From the System menu in AZedit, select **Auto Dial**.
The Auto Dial window appears.
2. Double-click an **auto dial number** from the Auto Dial column.
The Edit Auto Dial window appears.



3. From the Scroll Enable group box, select the **scroll enable check box(es)** you want to configure for the auto dial number.

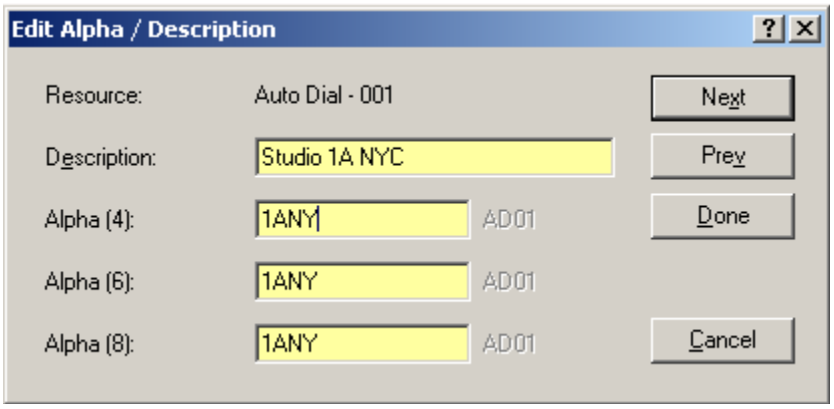
4. In the Phone Number field, enter the **telephone number** you want to have for that auto dial sequence.

   NOTE: *99 is used to create a pause in dialing. Pauses are required to dial extensions or select preset options.

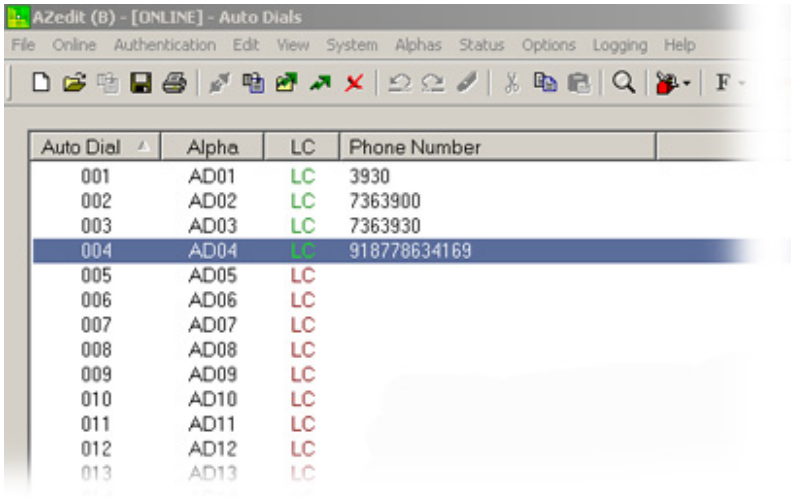
5. Click **Next** to enter another number.
   The next blank Edit Auto Dials window appears.
   OR
   Click **Done** to close the Edit Auto Dial window.
   The Auto Dials window appears with the new number in the list.

To **add a description to the telephone number in the Auto Dial database**, do the following:

1. From the Alphas menu in AZedit, select **Auto Dial**.
   The Auto Dial Alphas window appears.
2. Double-click the **AD resource number** you want to add the description to.
   The Edit Alpha/Description window appears.



3. In the Description field, enter a **unique description** for the auto dial number. For example, Studio 1A NYC.
4. In the Alpha 4, Alpha 6, or Alpha 8 field, enter a **recognizable 4-, 6-** or **8-character Alpha**. For example, 1ANY.
5. Click **Done** when you are finished.
   OR
   Click **Next** to enter another Alpha Description..



6. From the Online menu in AZedit, select **Send Changes**.
   The Send Changes window appears.
7. Click **OK**.
   The changes are sent to the intercom and the telephone number is added to the intercom system auto dial table.

To **use centralized auto dial numbers on the KP 12 CLD**, do the following:

1. On the KP 12 CLD, press the **key with the TIF assignment**.
   Hang Up, Icom ADial, Manual Dial, and Redial appear in the display.

2. Using the up or down key, scroll to **Icom ADial**.
3. Press **SEL**.
   You enter the centralized auto dial list. A scrollable list of available Auto Dial numbers appear in the display.
4. Using the up or down key, scroll to the desired **auto dial number**.
5. Press **SEL**.
   The number connects.

To **use centralized auto dial numbers with KP 12 CLD keypad sequences**, do the following:

1. When using the Default keypad mode, press **0**.
   OR
   When using the Classic keypad mode, press **4**.
   Dial and Drop appear in the display.

2. Using the up or down key, scroll to **Dial**.
   OR
   Press the **Dial key** on the keypanel.
3. Press **SEL**.
   Tap Key appears.
4. Press the **TIF assignment key**.
   A dial tone is heard.
5. Using the keypad, enter **#NNN** (where NNN is the Auto Dial number assignment in AZedit—for example, #001).
   The number is dialed.

APPENDIX G

KP 12 CLD Keypad Quick Reference

Keypad Sequence Introduction

Keypad sequences are a series of keypad strokes made on the KP 12 CLD, which in turn displays specific information (such as keypanel ID, talk level 2 assignments, etc.). Keypanel sequences are shortcuts via the KP 12 CLD keypad.

Available options for this field are: *Classic* and *Default*.

Classic sequence 2, is the previous standard for KP 12 and KP 96 keypanels.

Default sequence 1, is the new standard for the KP 12 CLD. This sequence is based upon an alternate key sequence for the KP 12 keypanel.

NOTE: The type of sequence used is selected through the Service menu, under Keypad (*Service*|*Keypad*|*Sequences*). For more information, see “Service Menu, Keypad” on page 129.

As with other keypanels, the KP 12 CLD allows you to lock the entire menu or the service menu. For more information on how to lock the menu, see the AZedit user manual.

The following are the different sequences available for each of the keypad sequence types:

Classic Keypad Sequence	
Keypad	*Description*

7, <key>	Copy the CWW to a key
0,8,1	Show panel ID
0,8,2	Show talk level 2 assignments
0,8,3	Show listen assignments
0,8,7	Enable tone
0,8,0	Enter test mode
3,1,SEL (PGM), <listen key>	Program a listen key with an AL assignment
3,2,SEL (PGM), <listen key>	Program a listen key with an AF assignment
3,3,SEL (PGM), <listen key>	Program a listen key with an AM assignment
3,4,SEL (PGM), <listen key>	Program a listen key with an AR assignment
3,7,SEL (PGM), <listen key>	Program a listen key with an AT assignment
3,5,SEL (PGM), <talk key>	Program a talk key with an AC assignment
0,8,8	Show setup pages
0,8,9	Enter diagnostic menu
0,6	Display list of matrix names, scroll up
0,9	Display list of matrix names, scroll down
0,5,6	Display list of function types, scroll up
0,5,9	Display list of function types, scroll down
0,7, <key>, <key>	Copy the first key to the second key
8, <page>, PGM, <key>	Select setup page for row of keys
4, PGM, <key>	Enter dial mode on TIF on key
4, CLR, <key>	Hang up TIF on key
6	Enter scroll list mode, scroll up
9	Enter scroll list mode, scroll down
5	Enter pre-fix/fast scroll mode

Classic Keypad Sequence	
Keypad	*Description*

The following sequences also require the assignments be marked as “Local” scroll enable in AZedit.

NOTE: IFB, RY, ISO, and IFSL are not locally scrollable, by default.

1, <port>, SEL (PGM), <key>	Program a key with a port assignment
2, <PL num>, SEL (PGM), <key>	Program a key with a PL assignment
0,1, <SL num>, SEL (PGM), <key>	Program a key with a SL assignment
0,2, <IFB num>, SEL (PGM), <key>	Program a key with an IFB assignment
0,3, <ISO num>, SEL (PGM), <key>	Program a key with an ISO assignment
0,4, <RY num>, SEL (PGM), <key>	Program a key with an RY assignment

Default Keypad Sequence	
Button/Keypad Sequence	***Description***

7, <key>	Copy the CWW to a key
0,0,0,8,1	Show panel ID
0,0,0,8,2	Show talk level 2 assignments
0,0,0,8,3	Show listen assignments
0,0,0,8,7	Enable tone
0,0,0,8,0	Enter test mode
0,0,0,8,8	Show setup pages
0,0,3,1,SEL, <listen key>	Program a listen key with an AL assignment
0,0,3,2,SEL, <listen key>	Program a listen key with an AF assignment
0,0,3,3,SEL, <listen key>	Program a listen key with an AM assignment
0,0,3,4,SEL, <listen key>	Program a listen key with an AR assignment
0,0,3,7,SEL, <listen key>	Program a listen key with an AT assignment
0,0,3,5,SEL, <talk key>	Program a talk key with an AC assignment
1	Display scroll list of matrix names
4	Display scroll list of function types
2	Enter pre-fix/fast scroll mode, scroll up
5	Enter pre-fix/fast scroll mode, scroll down
3	Enter scroll list mode, scroll up
6	Enter scroll list mode, scroll down
7, SEL <key>, <key>	Copy first key to second key
8, <page>, <key>	Select the setup page for a row of keys
0, SEL, <key>	Enter dial mode on TIF key
0, CLR, <key>	Hang up TIF key

Default Keypad Sequence	
Button/Keypad Sequence	***Description***
The following sequences also require the assignments be marked as “Local” scroll enable in AZedit. **NOTE**: IFB, RY, ISO, and IFSL are not locally scrollable, by default.	
0,0,1, <port>, SEL, <key>	Program a key with a port assignment
0,0,2, <PL num>, SEL, <key>	Program a key with a PL assignment
0,0,0,1, <SL num>, SEL, <key>	Program a key with a SL assignment
0,0,0,2, <IFB num>, SEL, <key>	Program a key with an IFB assignment
0,0,0,3, <ISO num>, SEL, <key>	Program a key with an ISO assignment
0,0,0,4, <RY num>, SEL, <key>	Program a key with an RY assignment

Keypanel Menu Quick Reference

KP 12 CLD System Menu - with GPI 12 CLD Expansion Unit And RVON-2 Option Card

Audio Options

- **DIM**
  - Headset
    - Front
      - Dim Volume: 0 dB
    - Rear
      - Dim Volume: 0 dB
  - Speaker
    - Front
      - Dim Volume: -8dB
    - Rear
      - Dim Volume: -8dB
- **DSP Functions**
  - Equalization
    - Front Spkr
    - Rear Left
    - Rear Right

      <preset list>
      - none
      - preset #1
      - preset #2
      - preset #3
      - preset #4
      - preset #5

Audio Options

- Filters
  - Aux In 1
  - Aux In 2
  - Aux In 3
  - Front Hdst
  - Front Mic
  - Matrix In
  - Rear Hdst
  - Rear Mic
  - RVON Ch1
  - RVON Ch2

    Filter List
    - none
    - 9600Hz
- Gating
  - Aux In 1 — Threshold Disabled
  - Aux In 2 — Threshold Disabled
  - Aux In 3 — Threshold Disabled
  - Front Hdst — Threshold Disabled
  - Front Mic — Threshold Disabled
  - Matrix In — Threshold Disabled
  - Rear Hdst — Threshold Disabled
  - Rear Mic — Threshold Disabled
  - RVON Ch1 — Threshold Disabled
  - RVON Ch2 — Threshold Disabled
- Metering
  - Aux In 1
  - Aux In 2
  - Aux In 3
  - Front Hdst
  - Front Mic
  - Matrix In
  - None
  - Rear Hdst
  - Rear Mic
  - RVON Ch1
  - RVON Ch2

Audio Options

- Mixing
  - Front Hdst
    - Both
    - Left
    - Right
  - Front Spkr
  - Preamp Out
  - Rear Hdst
    - Both
    - Left
    - Right
  - Rear Spkr
    - Both
    - Left
    - Right
  - RVON Ch 1
  - RVON Ch 2
  - To Matrix

  Source List (Not all sources are available to be mixed to all destinations)
  - Front Mic
  - Rear Mic
  - Front Hdst
  - Rear Hdst
  - Matrix
  - Aux In 1
  - Aux In 2
  - Aux In 3
  - RVON Ch1
  - RVON Ch 2

Headset Mic

- Front
  - Auto-mute: Disabled / Enabled
  - Mode: Disabled / Enabled / Switched*
  - Type: Auto-Detect / Dynamic / Electret
- Rear
  - Auto-mute: Disabled / Enabled
  - Mode: Disabled / Enabled / Switched*
  - Type: Auto-Detect / Dynamic / Electret

Headset Spkr

- Front
  - Auto-Transfer
    - Disabled
    - Enabled*

Audio Options

- Mode
  - Both, Left Chan, Right Chan
    - Always On*
    - Disabled
    - Switched
- Rear
  - Auto-Transfer
    - Disabled
    - Enabled*
  - Mode
    - Both, Left Chan, Right Chan
      - Always On*
      - Disabled
      - Switched

Key Volumes

- Adjust
  - Enabled*
  - Disabled
- Reset
  - Cancel
  - Do Reset: Volumes Reset

LCP 16 CLD

- Encoder 1 - 16
  - Inputs
    - Aux 1
    - Aux 2
    - Aux 3
    - Matrix In
    - RVON Ch1
    - RVON Ch2
  - Outputs
    - Both Hdsts
    - Both Spkrs
    - Front Hdst
    - Front Spkr
    - Rear Hdst
    - Rear Spkr
  - Sidetone
  - Unassigned

Matrix Out

- Normal
- Hot Mic

Max Volume

- Headset
  - Front: Max Volume: +10dB
  - Rear: Max Volume: +10dB

Audio Options

- **Mic Gain**
  - Adjust
    - Disabled
    - Front Hdst
    - Front Mic
    - Rear Hdst
    - Rear Mic
  - Level
    - Front Hdst — Mic Gain: 0dB
    - Front Mic — Mic Gain: 0dB
    - Rear Hdst — Mic Gain: 0dB
    - Rear Mic — Mic Gain: 0dB
- **Min Volume**
  - Headset
    - Front — Min Volume: Mute
    - Rear — Min Volume: Mute
  - Speaker
    - Front — Min Volume: Mute
    - Rear — Min Volume: Mute
- **Output Level**
  - Output Lvl: +8dB
- **Panel Mic**
  - Front
    - Disabled
    - Enabled
    - Switched*
  - Rear
    - Disabled
    - Enabled
    - Switched*
- **Preamp Out**
  - Disabled
  - Hot Mic
  - Switched*
- **Sidetone**
  - Level
    - Sidetone Level: -20dB
  - Mode
    - Always On
    - Disabled
    - Switched*

Audio Options

- **Speaker**
  - Front
    - Both, Left Chan, Right Chan
      - Always On*
      - Disabled
      - Switched
  - Rear
    - Both, Left Chan, Right Chan
      - Always On*
      - Disabled
      - Switched
- **Tone Gen**
  - Frequency
    - 1KHz
    - 500Hz*
  - Tone Off*
  - Tone On

Display

- **Assign Type**
  - Key Assign Type
- **Auto Dial**
  - 1-Touch Key Assignments
- **Chans On**
  - List of Callers
- **Chime**
  - Chime Keys
- **Exclusive**
  - Exclusive Keys
- **Key Groups**
  - Group 1 — Group 1 Members
  - Group 2 — Group 2 Members
  - Group 3 — Group 3 Members
  - Group 4 — Group 4 Members
- **Key List**
  - List of Hidden Assignments
- **LCP 16 CLD**
  - LCP 16 CLD Assignments
- **Level 2**
  - Level 2 Assignments
- **Listen**
  - Listen Assignments

Display

Matrix

Key Assign Matrices

Panel ID

Panel Alpha: N###

Solo Key

Solo Key

Version

Version X.X.X

Key Assign

Matrix

Matrix List:

- Pt-to-Pt
- Party Line
- IFB
- Spcl List
- Sys Relay
- Camera ISO
- UPL
- IFB SL

Pt-to-Pt

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Party Line

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign

IFB

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Special List

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Sys Relay

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Camera ISO

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign

UPL Resource

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

IFB Spcl List

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Auto Func

- All Call
- Auto Follow
- Auto Listen
- Auto Mute
- Auto Recip
- Auto Table
- Dim

Key Options

Auto Dial

Numbers

1-100

1-Touch

Tap Key

Assign Preconfigured #s

Chime

Select Keys

Tap Keys

List of Callers

Duration: 5 seconds

Key Options

Clear

Tap Key

Exclusive

Tap Key

Key Groups

Group 1 - 4

Tap Master Key

Tap Slave Keys

Latching

Disabled

Enabled*

Lock

Tap Key

Panel Swap

Control

GPI Inputs

Opto 1-4

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

GPI Outputs

OC Out 1/OC Out 2

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

Relay 1 – Relay 3

Cycle To

Next

Previous

Key Options

- Switch To
  - MAIN
  - EXP1 – EXP7
- Toggle To
  - EXP1 – EXP7
- Keypad
  - BACK/FWD/UPG
    - Cycle To
      - Next
      - Previous
    - Switch To
      - MAIN
      - EXP1 – EXP7
    - Toggle To
      - EXP1 – EXP7
    - Unassigned
  - Key States
    - Force Off
    - Retain
  - Virtual EKPs
    - None
    - EKP1 - EKP7

Solo

- Tap Key

Tallies

- 15 seconds*
- Indefinite

RVON Offers

Keypanel

- RVON-2
- AIO (or RVON-I/O if connected to an RVON-I/O

Aux Inputs

- RVON Ch1
- RVON Ch2

Save Configuration

Configuration Saved

Service

Alphas

- 4 Chars
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart
- 6 Chars
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart
- 8 Chars
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart
- Cancel
- Do Reset
- 8-Chars (UNICODE)
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart

Aux/Mtx Inputs

- Aux In 1
  - Disabled
  - Enabled
- Aux In 2
  - Disabled
  - Enabled
  - Ganged
- Aux In 3
  - Disabled
  - Enabled
- Matrix In
  - Disabled
  - Enabled

- ***Service***
  - RVON Ch 1
    - Disabled
    - Enabled
  - RVON Ch2
    - Disabled
    - Enabled
- **Baud Rate**
  - Auto Baud
  - 9600K Baud
  - 76.8K Baud
- **Display Dim**
  - All Panels
    - Brightness
  - Expansion
    - Both
    - Left
    - Right

    Brightness
  - Main Panel
    - Both
    - Left
    - Right

    Brightness
- **Footswitch**
  - Disabled*
  - Enabled
- **Key View**
  - Suppress AF*
  - Talk/Lisn
  - Talk Only
- **Keypad**
  - Backlight
    - Activate*
    - Always Off
    - Always On
  - SEL Key
    - Auto*
    - Assign Groups
    - Quick Assign
  - Sequences
    - Classic
    - Default*

- ***Service***
- **Local GPIO**
  - GPIO Inputs
    - Opto 1 - Opto 4
      - Key Group
        - Group 1
        - Group 2
        - Group 3
        - Group 4
      - Not Assigned*
      - Talk Key
        - Tap Key
  - GPIO Outputs
    - OC Out 1 and 2
      - Not Assigned
      - Talk Key
        - Tap Key
      - UPG
    - Relay 1-3
      - Not Assigned
      - Talk Key
        - Tap Key
      - UPG
- **Reset Cfg**
  - Cancel
  - Do Reset
    - Configuration Reset
- **RVON Setup**
  - RVON 2
    - IP Address
      - X.X.X.X
    - Gateway
      - X.X.X.X
    - Netmask
      - X.X.X.X
  - RVON-I/O
    - IP Address
      - X.X.X.X
    - Gateway
      - X.X.X.X
    - Netmask
      - X.X.X.X

- ***Service***
  - **Scrn Saver**
    - Activate
    - Delay
      - Delay Time: 1 Hour*
    - Mode
      - Display Off
      - Text*
  - **Set Address**
    - Poll ID: 1*
  - **Snoop Tally**
    - Chime
    - No Chime*
  - **Test Panel**
    - Test Panel

KP 12 CLD System Menu - with GPI 12 CLD Expansion Unit And OKI-2 Option Card

- ***Audio Options***
  - **DIM**
    - Headset
      - Front
        - Dim Volume: 0 dB
      - Rear
        - Dim Volume: 0 dB
    - Speaker
      - Front
        - Dim Volume: -8dB
      - Rear
        - Dim Volume: -8dB

- ***Audio Options***
  - **DSP Functions**
    - Equalization
      - Front Spkr, Rear Left, Rear Right
        - <preset list>
          - none
          - preset #1
          - preset #2
          - preset #3
          - preset #4
          - preset #5
    - Filters
      - Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OKI Ch1, OKI Ch2
        - Filter List
          - none
          - 9600Hz
    - Gating
      - Aux In 1 — Threshold Disabled
      - Aux In 2 — Threshold Disabled
      - Aux In 3 — Threshold Disabled
      - Front Hdst — Threshold Disabled
      - Front Mic — Threshold Disabled
      - Matrix In — Threshold Disabled
      - Rear Hdst — Threshold Disabled
      - Rear Mic — Threshold Disabled
      - OKI Ch1 — Threshold Disabled
      - OKI Ch2 — Threshold Disabled
    - Metering
      - Aux In 1
      - Aux In 2
      - Aux In 3
      - Front Hdst
      - Front Mic
      - Matrix In
      - None
      - Rear Hdst
      - Rear Mic
      - OKI Ch1
      - OKI Ch2

Audio Options

- Mixing
  - Front Hdst
    - Both
    - Left
    - Right
  - Front Spkr
  - Preamp Out
  - Rear Hdst
    - Both
    - Left
    - Right
  - Rear Spkr
    - Both
    - Left
    - Right
  - OKI Ch 1
  - OKI Ch 2
  - To Matrix

  Source List (Not all sources are available to be mixed to all destinations)
  - Front Mic
  - Rear Mic
  - Front Hdst
  - Rear Hdst
  - Matrix
  - Aux In 1
  - Aux In 2
  - Aux In 3
  - OKI Ch1
  - OKI Ch 2

Headset Mic

- Front
  - Auto-mute: Disabled / Enabled
  - Mode: Disabled / Enabled / Switched*
  - Type: Auto-Detect / Dynamic / Electret
- Rear
  - Auto-mute: Disabled / Enabled
  - Mode: Disabled / Enabled / Switched*
  - Type: Auto-Detect / Dynamic / Electret

Headset Spkr

- Front
  - Auto-Transfer
    - Disabled
    - Enabled*

Audio Options

- Mode
  - Both, Left Chan, Right Chan
    - Always On*
    - Disabled
    - Switched
- Rear
  - Auto-Transfer
    - Disabled
    - Enabled*
  - Mode
    - Both, Left Chan, Right Chan
      - Always On*
      - Disabled
      - Switched

Key Volumes

- Adjust
  - Enabled*
  - Disabled
- Reset
  - Cancel
  - Do Reset: Volumes Reset

LCP 16 CLD

- Encoder 1 - 16
  - Inputs
    - Aux 1
    - Aux 2
    - Aux 3
    - Matrix In
    - OKI Ch1
    - OKI Ch2
  - Outputs
    - Both Hdsts
    - Both Spkrs
    - Front Hdst
    - Front Spkr
    - Rear Hdst
    - Rear Spkr
  - Sidetone
  - Unassigned

Matrix Out

- Normal
- Hot Mic

Max Volume

- Headset
  - Front: Max Volume: +10dB
  - Rear: Max Volume: +10dB

Audio Options

- **Mic Gain**
  - Adjust
    - Disabled
    - Front Hdst
    - Front Mic
    - Rear Hdst
    - Rear Mic
  - Level
    - Front Hdst — Mic Gain: 0dB
    - Front Mic — Mic Gain: 0dB
    - Rear Hdst — Mic Gain: 0dB
    - Rear Mic — Mic Gain: 0dB
- **Min Volume**
  - Headset
    - Front — Min Volume: Mute
    - Rear — Min Volume: Mute
  - Speaker
    - Front — Min Volume: Mute
    - Rear — Min Volume: Mute
- **Output Level**
  - Output Lvl: +8dB
- **Panel Mic**
  - Front
    - Disabled
    - Enabled
    - Switched*
  - Rear
    - Disabled
    - Enabled
    - Switched*
- **Preamp Out**
  - Disabled
  - Hot Mic
  - Switched*
- **Sidetone**
  - Level
    - Sidetone Level: -20dB
  - Mode
    - Always On
    - Disabled
    - Switched*
- **Speaker**
  - Front
    - Both, Left Chan, Right Chan
      - Always On*
      - Disabled
      - Switched

Audio Options

  - Rear
    - Both, Left Chan, Right Chan
      - Always On*
      - Disabled
      - Switched
- **Tone Gen**
  - Frequency
    - 1KHz
    - 500Hz*
  - Tone Off*
  - Tone On

Display

- **Assign Type**
  - Key Assign Type
- **Auto Dial**
  - 1-Touch Key Assignments
- **Chans On**
  - List of Callers
- **Chime**
  - Chime Keys
- **Exclusive**
  - Exclusive Keys
- **Key Groups**
  - Group 1 — Group 1 Members
  - Group 2 — Group 2 Members
  - Group 3 — Group 3 Members
  - Group 4 — Group 4 Members
- **Key List**
  - List of Hidden Assignments
- **LCP 16 CLD**
  - LCP 16 CLD Assignments
- **Level 2**
  - Level 2 Assignments
- **Listen**
  - Listen Assignments
- **Matrix**
  - Key Assign Matrices
- **Panel ID**
  - Panel Alpha: N###
- **Solo Key**
  - Solo Key
- **Version**
  - Version X.X.X

Key Assign

Matrix

Matrix List:

- Pt-to-Pt
- Party Line
- IFB
- Spcl List
- Sys Relay
- Camera ISO
- UPL
- IFB SL

Pt-to-Pt

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign

Party Line

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

IFB

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Special List

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Sys Relay

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign

Camera ISO

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

UPL Resource

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

IFB Spcl List

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Auto Func

- All Call
- Auto Follow
- Auto Listen
- Auto Mute
- Auto Recip
- Auto Table
- Dim

Key Options

Auto Dial

Numbers

1-100

1-Touch

Tap Key

Assign Preconfigured #s

Chime

Select Keys

Tap Keys

List of Callers

Duration: 5 seconds

Clear

Tap Key

Exclusive

Tap Key

Key Groups

Group 1 - 4

Tap Master Key

Tap Slave Keys

Latching

Disabled

Enabled*

Lock

Tap Key

Panel Swap

Control

GPI Inputs

Opto 1-4

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

GPI Outputs

OC Out 1/OC Out 2

Cycle To

Next

Previous

Key Options

- Switch To
  - MAIN
  - EXP1 – EXP7
- Toggle To
  - EXP1 – EXP7
- Unassigned
- Relay 1 – Relay 3
- Cycle To
  - Next
  - Previous
- Switch To
  - MAIN
  - EXP1 – EXP7
- Toggle To
  - EXP1 – EXP7
- Keypad
  - BACK/FWD/UPG
  - Cycle To
    - Next
    - Previous
  - Switch To
    - MAIN
    - EXP1 – EXP7
  - Toggle To
    - EXP1 – EXP7
  - Unassigned
- Key States
  - Force Off
  - Retain
- Virtual EKPs
  - None
  - EKP1 - EKP7

Solo

- Tap Key

Tallies

- 15 seconds*
- Indefinite

Save Configuration

Configuration Saved

Service

Alphas

- 4 Chars
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart
- 6 Chars
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart
- 8 Chars
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart
  - Cancel
  - Do Reset
- 8-Chars (UNICODE)
  - Japanese
    - Cancel
    - Save and Restart
  - Standard
    - Cancel
    - Save and Restart

Aux/Mtx Inputs

- Aux In 1
  - Disabled
  - Enabled
- Aux In 2
  - Disabled
  - Enabled
  - Ganged
- Aux In 3
  - Disabled
  - Enabled

- ***Service***
  - Matrix In
    - Disabled
    - Enabled
  - OKI Ch 1
    - Disabled
    - Enabled
  - OKI Ch2
    - Disabled
    - Enabled
- **Baud Rate**
  - Auto Baud
  - 9600K Baud
  - 76.8K Baud
- **Display Dim**
  - All Panels
    - Brightness
  - Expansion
    - Both — Brightness
    - Left
    - Right
  - Main Panel
    - Both — Brightness
    - Left
    - Right
- **Footswitch**
  - Disabled*
  - Enabled
- **Key View**
  - Suppress AF*
  - Talk/Lisn
  - Talk Only
- **Keypad**
  - Backlight
    - Activate*
    - Always Off
    - Always On
  - SEL Key
    - Auto*
    - Assign Groups
    - Quick Assign
  - Sequences
    - Classic
    - Default*

- ***Service***
- **Local GPIO**
  - GPIO Inputs
    - Opto 1 - Opto 4
      - Key Group
        - Group 1
        - Group 2
        - Group 3
        - Group 4
      - Not Assigned*
      - Talk Key
        - Tap Key
  - GPIO Outputs
    - OC Out 1 and 2
      - Not Assigned
      - Talk Key
        - Tap Key
      - UPG
    - Relay 1-3
      - Not Assigned
      - Talk Key
        - Tap Key
      - UPG
- **Reset Cfg**
  - Cancel
  - Do Reset
    - Configuration Reset
- **Scrn Saver**
  - Activate
  - Delay
    - Delay Time: 1 Hour*
  - Mode
    - Display Off
    - Text*
- **Set Address**
  - Poll ID: 1*
- **Snoop Tally**
  - Chime
  - No Chime*
- **Test Panel**
  - Test Panel

KP 12 CLD System Menu - no Option Card or Expansion Unit

Audio Options

- **DIM**
  - Headset
    - Dim Volume: 0 dB
  - Speaker
    - Dim Volume: -8dB
- **DSP Functions**
  - Equalization
    - none
    - preset #1
    - preset #2
    - preset #3
    - preset #4
    - preset #5
  - Filters
    - Hdst Mic — Filter List
    - Matrix In — • none • 9600Hz
    - Panel Mic
  - Gating
    - Hdst Mic — Threshold Disabled
    - Matrix In — Threshold Disabled
    - Panel Mic — Threshold Disabled
  - Metering
    - Hdst Mic
    - Matrix In
    - None
    - Panel Mic
  - Mixing
    - Headset — Source List (Not all sources are available to be mixed to all destinations) • Hdst Mic • Matrix • Panel Mic
      - Both
      - Left Chan
      - Right Chan
    - Speaker
    - To Matrix
- **Headset Mic**
  - Front
    - Auto-mute — Disabled / Enabled
    - Mode — Disabled / Enabled / Switched*
    - Type — Auto-Detect / Dynamic / Electret

Audio Options

- **Headset Spkr**
  - Auto-Transfer
    - Disabled
    - Enabled
  - Mode
    - Both, Left Chan, Right Chan
      - Always On*
      - Disabled
      - Switched
- **Key Volumes**
  - Adjust
    - Disabled
    - Enabled*
  - Reset
    - Cancel
    - Do Reset — Volumes Reset
- **LCP 16 CLD**
  - Encoder 1 - 16
    - Inputs — Matrix In
    - Outputs — Both Hdsts / Both Spkrs / Front Hdst / Front Spkr / Rear Hdst / Rear Spkr
    - Sidetone
    - Unassigned
- **Matrix Out**
  - Normal*
  - Hot Mic
- **Max Volume**
  - Headset
    - Max Volume: +10dB
- **Mic Gain**
  - Adjust
    - Disabled
    - Hdst Mic
    - Panel Mic
  - Level
    - Hdst Mic
      - Mic Gain: 0dB
    - Panel Mic
      - Mic Gain: 0dB

Audio Options

- **Min Volume**
  - Headset
    - Min Volume: Mute
  - Speaker
    - Min Volume: Mute
- **Output Level**
  - Output Lvl: +8dB
- **Panel Mic**
  - Disabled
  - Enabled
  - Switched*
- **Sidetone**
  - Level
    - Sidetone Level: -20dB
  - Mode
    - Always On
    - Disabled
    - Switched*
- **Speaker**
  - Always On
  - Disabled
  - Switched*
- **Tone Gen**
  - Frequency
    - 1KHz
    - 500Hz
  - Tone Off*
  - Tone On

Display

- **Assign Type**
  - Key Assign Type
- **Auto Dial**
  - 1-Touch Key Assignments
- **Chans On**
  - List of Callers
- **Chime**
  - Chime Keys
- **Exclusive**
  - Exclusive Keys
- **Key Groups**
  - Group 1 — Group 1 Members
  - Group 2 — Group 2 Members
  - Group 3 — Group 3 Members
  - Group 4 — Group 4 Members
- **Key List**
  - List of Hidden Assignments

Display

- **LCP 16 CLD**
  - List of LCP 16 CLD Assignments
- **Level 2**
  - Level 2 Assignments
- **Listen**
  - Listen Assignments
- **Matrix**
  - Key Assign Matrices
- **Panel ID**
  - Panel Alpha: N###
- **Solo Key**
  - Solo
- **Version**
  - Version X.X.X

Key Assign

- **Matrix**
  - Matrix List:
    - Pt-to-Pt
    - Party Line
    - IFB
    - Spcl List
    - Sys Relay
    - Camera ISO
    - UPL
    - IFB SL
- **Pt-to-Pt**
  - Scroll List:
    - Talk Lvl 1
    - Listen
    - Talk + AF
    - Talk + AL
    - Talk + AT
    - Talk + AM
    - Talk + AR
    - Talk Lvl 2

Key Assign
Party Line
Scroll List: • Talk Lvl 1 • Listen • Talk + AF • Talk + AL • Talk + AT • Talk + AM • Talk + AR • Talk Lvl 2
IFB
Scroll List: • Talk Lvl 1 • Listen • Talk + AF • Talk + AL • Talk + AT • Talk + AM • Talk + AR • Talk Lvl 2
Special List
Scroll List: • Talk Lvl 1 • Listen • Talk + AF • Talk + AL • Talk + AT • Talk + AM • Talk + AR • Talk Lvl 2
Sys Relay
Scroll List: • Talk Lvl 1 • Listen • Talk + AF • Talk + AL • Talk + AT • Talk + AM • Talk + AR • Talk Lvl 2

Key Assign
Camera ISO
Scroll List: • Talk Lvl 1 • Listen • Talk + AF • Talk + AL • Talk + AT • Talk + AM • Talk + AR • Talk Lvl 2
UPL Resource
Scroll List: • Talk Lvl 1 • Listen • Talk + AF • Talk + AL • Talk + AT • Talk + AM • Talk + AR • Talk Lvl 2
IFB Spcl List
Scroll List: • Talk Lvl 1 • Listen • Talk + AF • Talk + AL • Talk + AT • Talk + AM • Talk + AR • Talk Lvl 2
Auto Func
• All Call • Auto Follow • Auto Listen • Auto Mute • Auto Recip • Auto Table • Dim

- ***Key Options***
  - **Auto Dial**
    - Numbers
      - 1-100
    - 1-Touch
      - Tap Key
        - Assign Preconfigured #s
  - **Chime**
    - Duration
      - Duration: 5 seconds
    - Keys
      - Tap Key
  - **Clear**
    - Tap Key
  - **Exclusive**
    - Tap Key
  - **Key Groups**
    - Group 1 – 4
      - Tap Master Key
        - Tap Slave Keys
  - **Latching**
    - Disabled
    - Enabled
  - **Panel Swap**
    - Control
      - GPI Inputs
        - Opto 1-4
          - Cycle To
            - Next
            - Previous
          - Switch To
            - MAIN
            - EXP1 – EXP7
          - Toggle To
            - EXP1 – EXP7
          - Unassigned
      - GPI Outputs
        - OC Out 1/OC Out 2
          - Cycle To
            - Next
            - Previous
          - Switch To
            - MAIN
            - EXP1 – EXP7
          - Toggle To
            - EXP1 – EXP7
          - Unassigned
      - Relay 1 – Relay 3
        - Cycle To
          - Next
          - Previous
        - Switch To
          - MAIN
          - EXP1 – EXP7
        - Toggle To
          - EXP1 – EXP7
      - Keypad
        - BACK/FWD/UPG
          - Cycle To
            - Next
            - Previous
          - Switch To
            - MAIN
            - EXP1 – EXP7
          - Toggle To
            - EXP1 – EXP7
          - Unassigned
      - Key States
        - Force Off
        - Retain
      - Virtual EKPs
        - None
        - EKP1 - EKP7
  - **Solo**
    - Tap Key
  - **Tallies**
    - 15 seconds*
    - Indefinite

- ***Save Configuration***
  - **Configuration Saved**

- **Service**
  - **Alphas**
    - 4 Chars
      - Japanese
        - Cancel
        - Save and Restart
      - Standard
        - Cancel
        - Save and Restart
    - 6 Chars
      - Japanese
        - Cancel
        - Save and Restart
      - Standard
        - Cancel
        - Save and Restart
    - 8 Chars
      - Japanese
        - Cancel
        - Save and Restart
      - Standard
        - Cancel
        - Save and Restart
      - Cancel
      - Do Reset
    - 8-Chars (UNICODE)
      - Japanese
        - Cancel
        - Save and Restart
      - Standard
        - Cancel
        - Save and Restart
  - **Aux/Mtx Inputs**
    - Matrix In
      - Disabled
      - Enabled
  - **Baud Rate**
    - Auto Baud
    - 76.8K Baud
    - 9600K Baud

- **Service**
  - **Display Dim**
    - All Panels
      - Brightness
    - Expansion
      - Both — Brightness
      - Left
      - Right
    - Main Panel
      - Both — Brightness
      - Left
      - Right
  - **Key View**
    - Suppress AF*
    - Talk/Lisn
    - Talk Only
  - **Keypad**
    - Backlight
      - Activate*
      - Always Off
      - Always On
    - SEL Key
      - Auto*
      - Assign Groups
      - Quick Assign
    - Sequences
      - Default*
      - Classic
  - **Reset Cfg**
    - Cancel
    - Do Reset
      - Configuration Reset
  - **Scrn Saver**
    - Activate
    - Delay
      - Delay Time: 1 hour*
    - Mode
      - Display Off
      - Text*
  - **Set Address**
    - Poll ID: 1*
  - **Snoop Tally**
    - Chime
    - No Chime*
  - **Test Panel**
    - Test Panel

APPENDIX 9

RVON-2 for KP 12 CLD

General Description of the RVON-2 Voice Over Network Card

Installed directly into KP CLD family keypanels, the RVON-2 provides VoIP (Voice over Internet Protocol) communications for the RTS ADAM Intercom family. In general, VoIP means sending voice information in digital form using discrete packets rather than the traditional hard-wire analog audio over copper connection. The RVON-2 delivers an integrated solution for connecting CLD keypanels to the Intercom matrix over IP networks.

The RVON-2 is compatible with any RTS Matrix Intercom System equipped with a suitable RVON interface. In conjunction with the KP 12 CLD keypanel, the RVON-2 brings a new level of enterprise-wide and remote access functionality to your RTS Matrix Intercom.

The RVON-2 card is configurable through the keypanel service menu and Bosch's AZedit configuration software. It is fully compatible with internationally recognized standards and supports the following protocols: G.711, G.729A, and G.723 2-bit rates.

The RVON-2 reaffirms RTS' history of providing support for the latest technology in a fully supported backward compatible manner to all its RTS products.

Features

Installation	The RVON-2 provides a single RJ-45 Ethernet connection for use with a 10 BASE-T or 100 BASE-TX network.
2 Channels of Audio IN and OUT	The RVON-2 card supports two (2) channels in and out and has configurable network and bandwidth parameters that can be tailored to individual network functions.
Ethernet Compatible	The RVON-2 card uses standard Ethernet protocols and is compatible with 10 BASE-T and 100 BASE-TX Ethernet compliant devices and networks.
AZedit Configurations	The RVON-2 provides the user the ability to adjust the audio parameters of the RVON-2 channel to optimize the available bandwidth.
Swappable Between Ethernet and AIO Connection	When connected to an Ethernet LAN, if selected, audio comes from the VoIP RVON-2 card; when an Ethernet link is not present, the audio comes from the AIO connection. Note, the user does not need to remove the RVON-2 card to switch to AIO mode. VoIP and AIO audio is selected via the keypanel menu (*RVON Offers*)

Specifications

DIGITAL

TABLE 10. Compression Specifications

Compression	Audio Bit Rate	Coding Delay	Playout Delay	IP Bandwidth
G.711	64k	125µs	20–60ms	160–224 kbps
G.729A	8k	10ms	20–120ms	32–112kbps
G.723	5.3k/6.3k	30ms	60–120ms	29–45kbps
Data depends on codec selection. **NOTE:** The Playout Delay and Bandwidth depend on the configured amount of audio per packet.				

CONNECTIONS

- RJ-45 Ethernet via backcard
- 20-pin KP Compatible Expansion Connector

PHYSICAL

- 2.5”W x 5.75”L (63.5mmW X 146.05mmL)

Default IP Addresses and Subnet Masks for the RVON Product Line

TABLE 11. Default IP Addresses and Subnet Masks for the RVON Product Line

Product	Default IP Address	Default Subnet Mask
RVON-I/O	192.168.0.1	255.255.0.0
RVON-8	192.168.0.2.	255.255.0.0
RVON-1/2	192.168.0.3	255.255.0.0
RVON-C	192.168.0.4	255.255.0.0
RVON-16	192.168.0.5	255.255.0.0
GPIO-16	192.168.0.6	255.255.0.0
MCII-e	192.169.0.7	255.255.0.0
Cronus	192.169.0.8	255.255.0.0
Zeus III	192.169.0.9	255.255.0.0

Dip Switches

Switch 1 **Reserved**

Switch 2 **Disable Telnet Shell**

Default Setting: off (Telnet Enabled)

Description: The Telnet shell allows you to access configuration options through the use of Telnet. When DIP switch 2 is off, you can use Telnet to access configuration options on the RVON-2 card. Turn **DIP switch 2 on** to disable the Telnet shell.

Switch 3 **Enable Boot Downloader**

Default Setting: off (Boot Downloader Disabled)

Description The purpose of the boot downloader is to allow you to recover from having your main application image corrupted (either by bad flash programming or by downloading an invalid image). Turn **DIP switch 3 on** to enable the boot downloader.

Switch 4 **Debug Only!**

Default Setting: off

Description DIP switch 4 should always be left in the off position. It is reserved for debugging and switching it on can have unintended consequences.

Firmware Compatibility Requirements for the RVON-2 Card

TABLE 12. Compatibility Requirements for the RVON-2 card.

Description	Version
Master Controller	9.19.0 or later
Peripheral Controller	10.10.0 or later
DBX	1.10.1 or later
AZedit	2.06.06 or later
RVON-8	2.1.5 or later
KP 12 CLD	1.0.0 or later

Installation of the RVON-2 Card

KP 12 CLD Expansion Unit

The RVON-2 option card allows you to install VoIP technology right into the keypanel.

IMPORTANT: Be sure to remove the knockout piece on the rear panel of the GPIO Expansion unit.

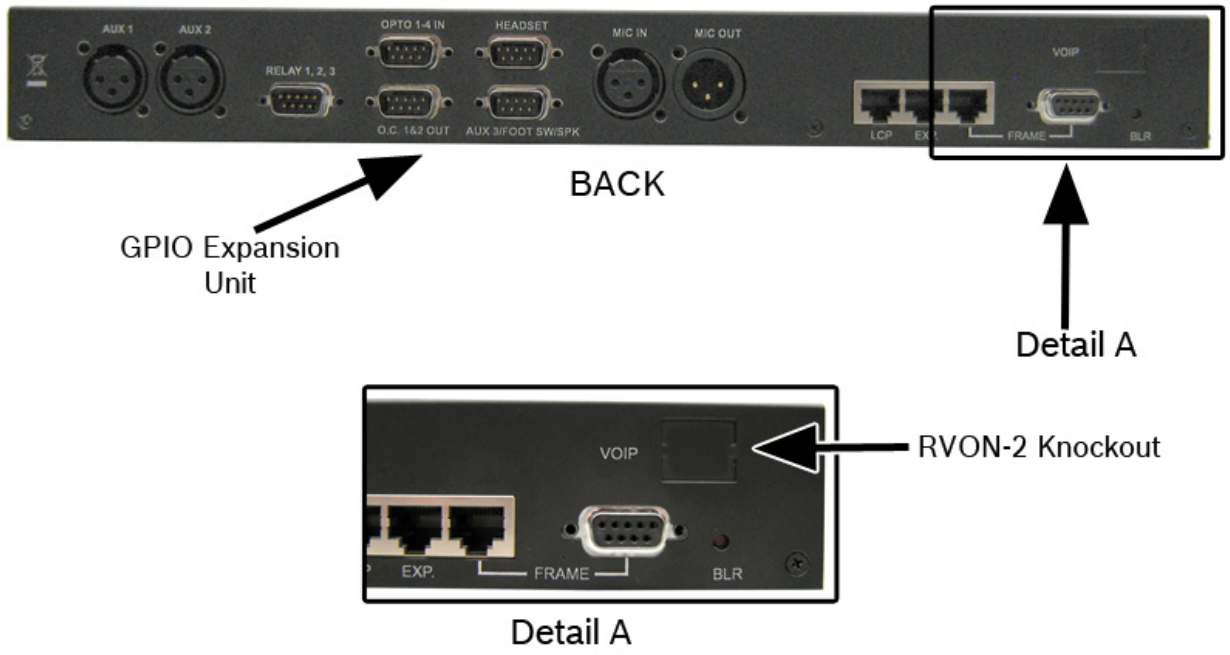


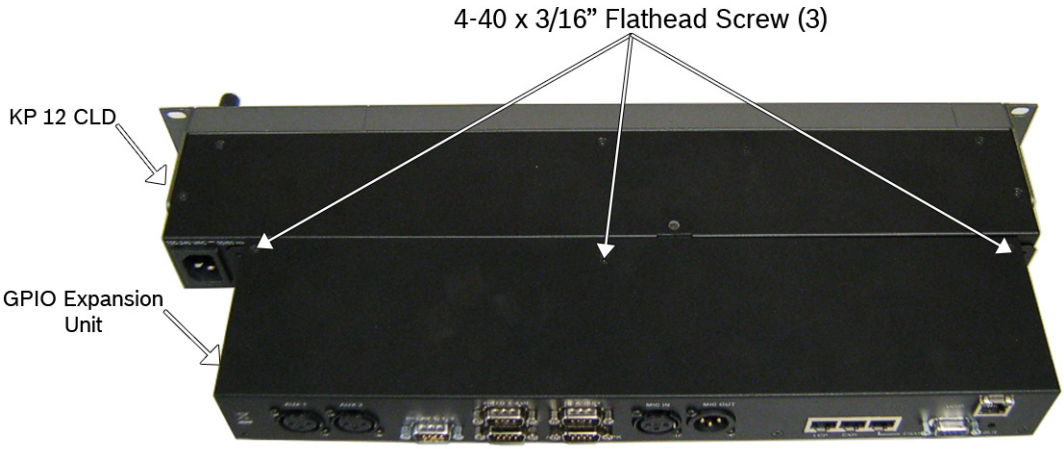
FIGURE 39. GPIO Expansion Unit — RVON-2 Knockout

NOTE: You must have the KP 12 CLD expansion panel installed to use an RVON-2 card. However, coupling a KP 12 CLD and an RVON-I/O gives you RVON capabilities as well.

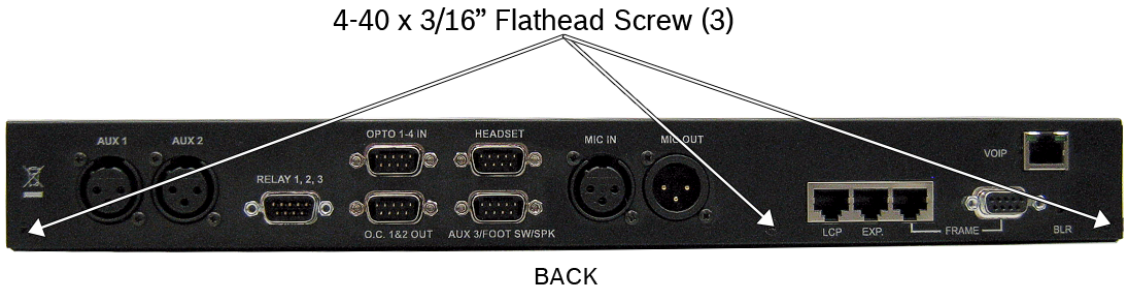
To **install the RVON-2 Option card in the KP 12 CLD expansion unit**, do the following:

NOTE: You do not need to uninstall the KP 12 CLD expansion unit from the KP 12 CLD when you install the RVON-2 Option Card.

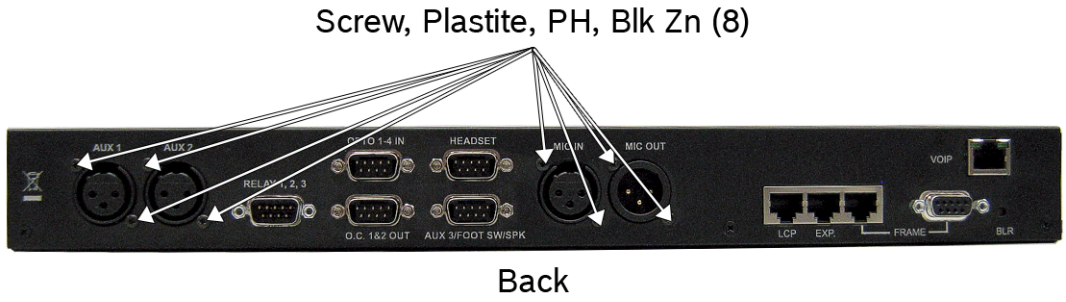
1. Using a screwdriver, remove the **three (3) screws** on the top of the expansion unit.



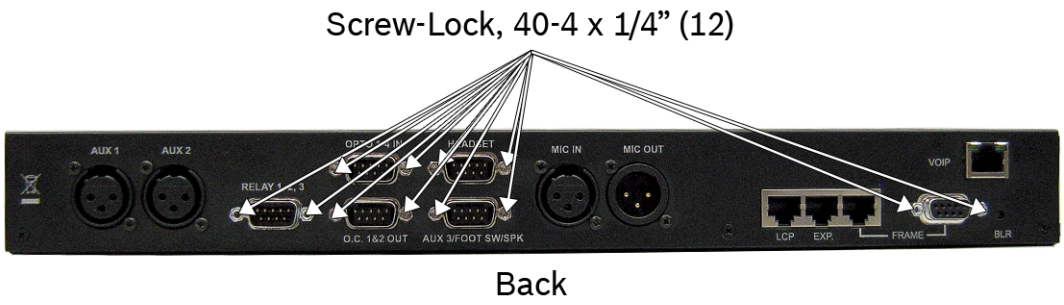
2. Remove the **three (3) screws** from the back panel of the KP 12 CLD expansion panel.



3. Remove the **XLR connector screws (8)**.



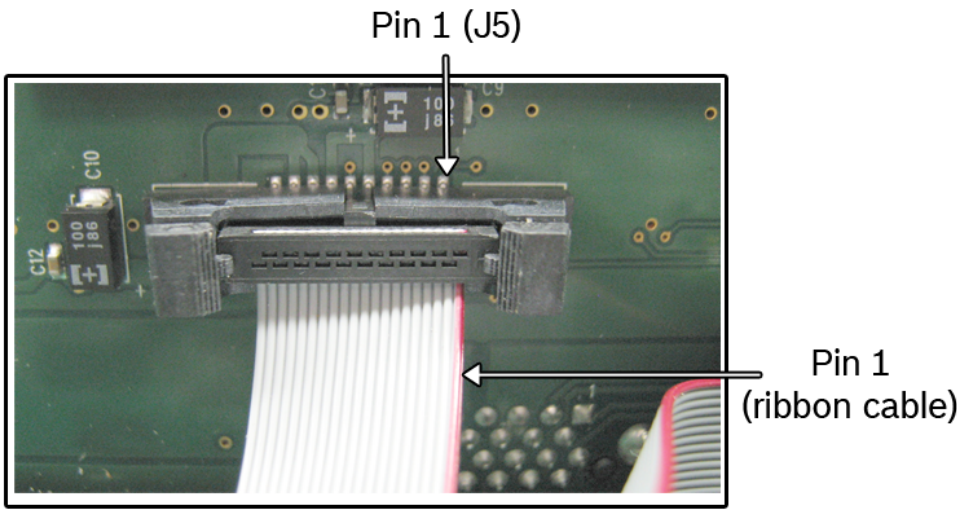
4. Using a 1/4” nut driver, remove the **DB-9 connector hex screws** (12).



Back

5. Carefully slide the top/back chassis to remove the **back panel** and set it aside.
6. Attach the **provided ribbon cable to J10** on the RVON-2 card.

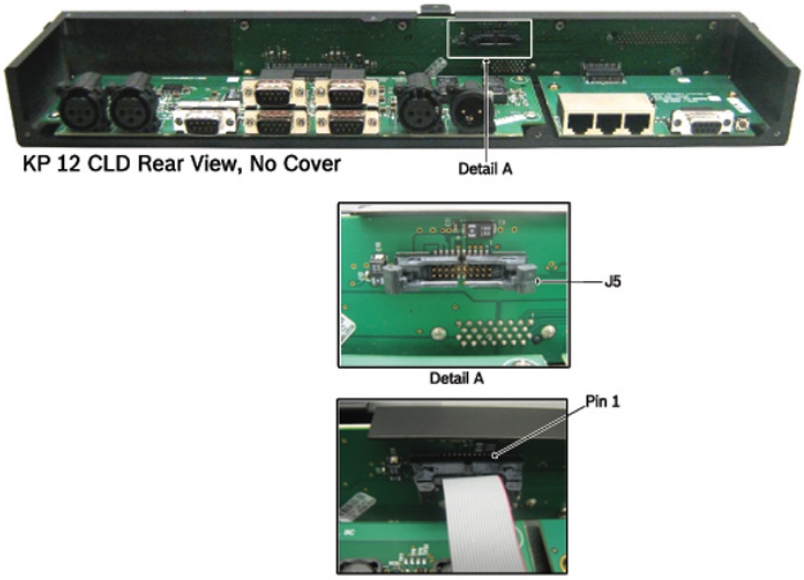
NOTE: Be sure to align the red wire in the ribbon cable with pin 1 on the RVON-2 card.



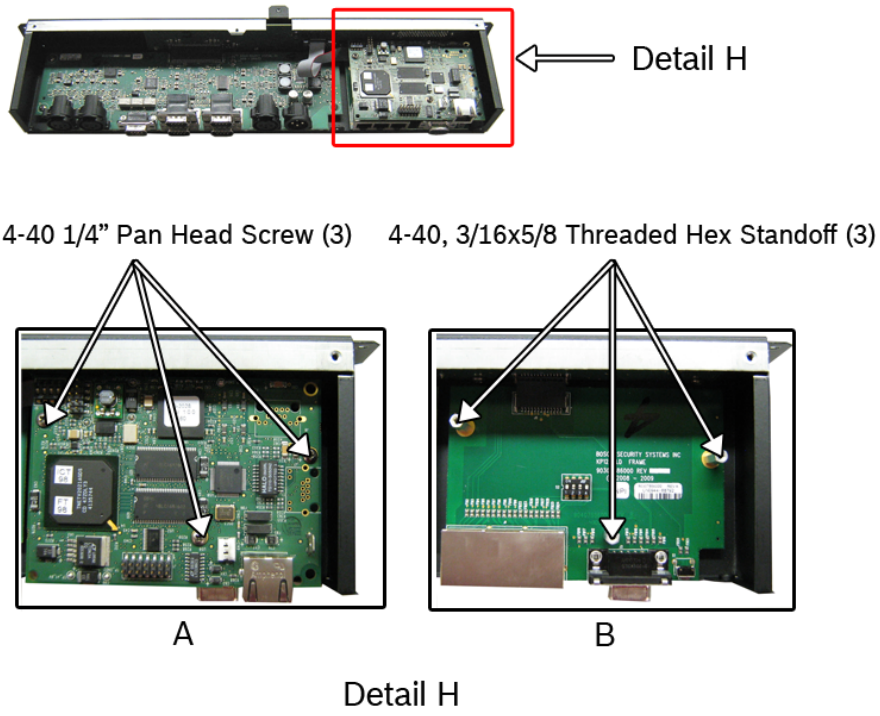
J5 Connector

7. Securely connect the **RVON-2 Option Card ribbon cable** to the J5 connector of the GPIO expansion panel interface board.

IMPORTANT: Do not connect the ribbon cable backwards, unintended results can occur.



8. Place the **RVON-2 card** in the expansion unit, aligning the screw holes in the board with the metal standoffs in the expansion unit.



9. Using a screwdriver, connect the **three (3) screws** that hold the RVON-2 option card in place in the expansion panel.
10. Using the appropriate screws, attach the **cover** to the expansion unit.
11. Power **On** the KP 12 CLD unit.

NOTE:

Configure the RVON-2 from the KP 12CLD

The KP 12 CLD firmware must be at version 1.0.1 or higher, allowing the RVON-2 is to be used with the KP 12 CLD.

Set the IP Address from the Service Level Menu

The RVON-2 card, when shipped has a default IP Address already configured, see “Default IP Addresses and Subnet Masks for the RVON Product Line” on page 182. This must be changed in order for the RVON-2 card to function properly because the pre-configured IP Address may not work with your network.

To **set the IP Address**, do the following:

1. On the KP 12 CLD, press **Menu**.
   The top level menu appears.
2. Using the up or down key, select **Service**.
3. Press **SEL**.
   The Service submenu appears.
4. Using the up or down key, select **RVON Setup**.
5. Press **SEL**.
   The RVON-2 and RVON-IO appear in the display.
6. Using the up or down key, select **RVON-2**.
7. Press **SEL**.
   IP Address, Gateway, and Netmask appear in the display.
8. Using the up or down key, select **IP Address**.
9. Press **SEL**.
   The current IP Address appears.
10. Using the number pad, enter the **first octet** in the IP Address.
    This activates the first octet of the IP Address and clears the rest of the IP Address.
11. Press **SEL**.
    This confirms the first octet in the IP Address and moves you to the second octet.

    NOTE: Press **SEL** to skip over any octet that does not need modification.
12. Repeat **steps 10 and 11** until the entire IP Address is entered.
13. Press **SEL**.
    IP Address, Gateway, and Netmask appear in the display.

    NOTE: Once you have entered the IP Address, enter the Gateway Address, if required. A Gateway is a node (for example, a computer) on a network that serves as an entrance to another network.
14. Using the up or down key, select **Netmask**.
15. Press **SEL**.
    The current Netmask appears.
16. Using the number pad, enter the **first octet** in the Netmask.
    This activates the first octet of the Netmask and clears the rest of the Netmask.
17. Press **SEL**.
    This confirms the first octet in the Netmask and moves you to the second octet.

    NOTE: Press **SEL** to skip over any octet that does not need modification.
18. Repeat **steps 16** and **17** until the entire Netmask is entered.
19. Press **SEL**.
    IP Address, Gateway, and Netmask appear in the display.

NOTE: Once you have entered the Gateway, enter the Netmask, if required. The Netmask is a string of numbers similar to an IP Address, except that it masks or screens out the network part of an IP Address so that only the host computer part of the address remains (for example, 255.255.255.0).

20. Press **SEL**.
The current Netmask appears.
21. Using the number pad, enter the **first octet** in the Netmask Address.
This activates the first octet of the Netmask Address and clears the rest of the address.
22. Press **SEL**.
This confirms the first octet in the Netmask Address and moves you to the second octet.

NOTE: Press **SEL** to skip over any octet that does not need modification.

23. Repeat **steps 21** and **22** until the entire Netmask is entered.
24. Press **SEL**.
IP Address, Gateway, and Netmask appear in the display.
25. Press **CLR** to exit the menu.
The modifications are now made.

NOTE: You can still set the IP Address without being connected to an Ethernet LAN. Once you have entered the IP information you are prompted to perform a Save Cfg. The address is saved in the keypanel until the RVON-2 is connected to an Ethernet LAN.

Menu System, RVON Offers (Only available with the RVON-2 option card installed)

The **RVON Offers** menu item is used to configure the matrix connection when the RVON-2 option card is installed. It is also used to configure which RVON channels can be used for Aux Input.

NOTE: Use the left and right arrows in the keypanel display to navigate to the different menu items.

FIGURE 40. RVON Offers Top Level Menu Option

RVON-2 Option Card Matrix Connection

NOTE: You can only have one (1) frame connection at a time.

There are three (3) ways to connect to the matrix:

AIO – AIO-8, AIO-16, Cronus. When the AIO connection is used, both RVON Ch1 and Ch2 are available as Aux Input Channels. Use the Frame connection on the back panel of the keypanel.

RVON-2 – RVON-16, RVON-8, RVON-C, RVON-I/O (in remote mode) You can only use RVON channel 1 when connecting to the matrix using the RVON-2. Use the VoIP connection on the RVON-2 option card.

RVON-I/O – RVON-16, RVON-8, RVON-C, and RVON-I/O (in local mode). Use the Frame connection on the back panel of the keypanel.

REFERENCE: For more information about RVON-I/O configuration, see the RVON-I/O user manual which can be found at www.rtsintercoms.com.

RVON-2 Option Card Matrix Port Configuration

With the RVON-2 option card installed in one (1) of the CLD family of keypanels, you can have up to two (2) additional full-duplex audio channels that can be mixed with audio in the CLD keypanel.

NOTE: RVON channel 1 can be used for either the matrix connection or as an Aux Input/Output. However, it cannot be used as both at the same time.

To **configure the Matrix connection port**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Top Level menu appears.
2. Using the up or down key, select **RVON Offers**.

3. Press **SEL**.
   Keypanel and Aux Input appear in the display.

4. Using the up or down key, select **Keypanel**.
   RVON-2 and AIO[1] *appear in the display.*

5. Select the **Matrix connection type** you want to use.
   A list of available ports appears.
6. Using the up or down key, select the **port** you want to use.
   An arrow appears next to the port.
7. Press **CLR** to exit menu mode.

NOTE: You can manually select between keypanel frame connections. But, when the connection is switched, it automatically disables and resets the unused connection to the *None* option. This means when you reconnect, you must reassign the matrix port.

RVON-2 Option Card Aux Port Configuration

To **configure the RVON channels as Aux Inputs**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
   The Top Level menu appears.
2. Using the up or down key, select **RVON Offers**.
3. Press the **SEL** button.
   Keypanel and Aux Input appear in the display.
4. Using the up or down key, select **Aux Input**

5. Press **SEL**.
   RVON Ch1 and RVON Ch2 appears in the display.

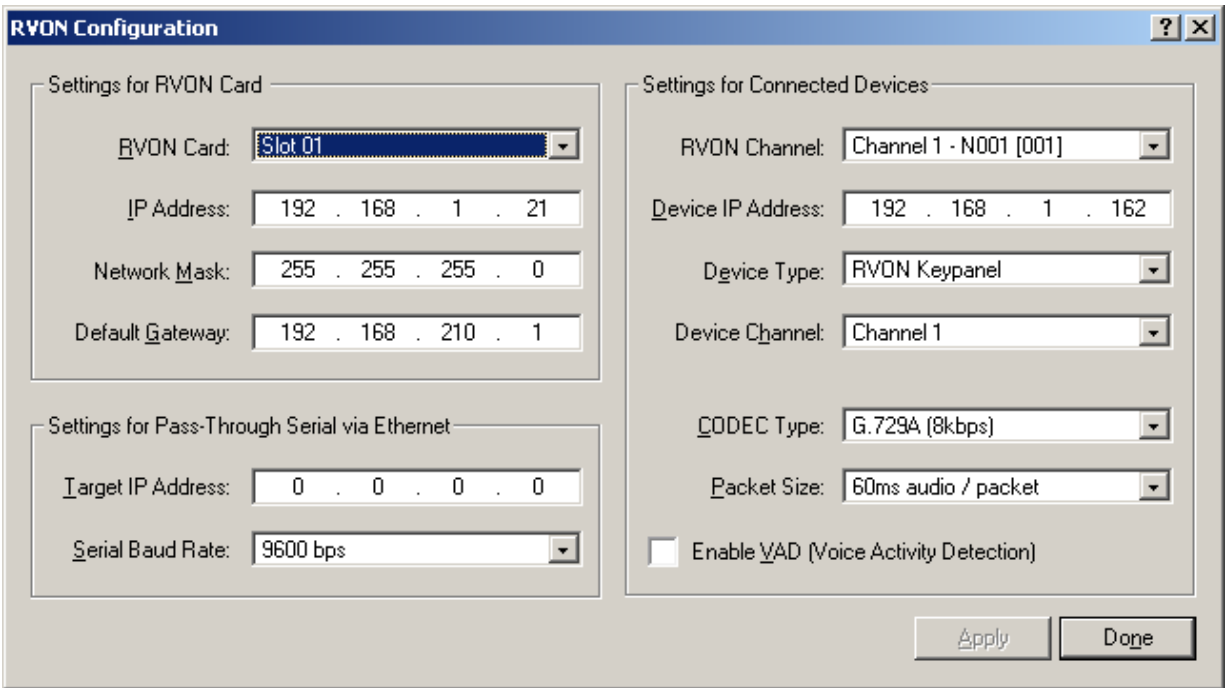
1. *If an RVON-I/O is connected to the keypanel, RVON-I/O replaces the AIO menu option.*

6. Using the up or down key, select **RVON Ch1** or **RVON Ch2**.
7. Press **SEL**.
   A list of available RVON ports appears in the display.
8. Using the up or down key, select the **RVON port** you want to configure as an Aux Input.
9. Press **SEL**.
   The RVON Aux Input is configured.

Configure a RVON card in the Frame using AZedit to contact the RVON-2

To **configure the RVON-2 card**, do the following in AZedit:

1. From the Status menu in AZedit, select **I/O Cards**.
   The I/O Card Status window appears showing the types of installed cards.
2. Right click an **RVON card** and select **RVON Configuration**.
   The RVON Configuration window appears.



NOTE:

- The RVON card you use should be already configured. If it is not configured, refer to the specific RVON User Manual which can be found at www.rtsintercoms.com
- Remember, the RVON-2 has only one channel that can be configured as the matrix port. The second channel is always an AUX port.

3. From the RVON Channel drop down list, select the **channel** to be used to communicate to the RVON-2 card across the network.
4. In the Device IP field, enter the **IP Address** for the RVON-2 card.
5. From the Device Type drop down list, select **RVON Keypanel**.
6. From the Device Channel drop down list, select **Channel 1** or **Channel 2**.
   There may be two (2) channels listed, but a matrix port connection can only be made through channel 1. Channel 2 can be used as an Aux Input.
7. From the CODEC Type drop down list, select the **codec type**.
8. From the Packet Size drop down list, select the **size** of each audio packet.

NOTE: A codec is an algorithm used to compress audio. Codecs dictate the quality of audio you hear and the network bandwidth used. The packet size determines how much audio data is carried across the network in each transmitted packet. The codec type and packet size chosen require different amounts of bandwidth from the network. As with the codec type, the packet size you choose for the audio transfer affects the audio you hear and the bandwidth you use over the network. The larger the audio packet you choose to use, the lower the bandwidth used. However, the larger packet size can result in a higher delay and longer gaps if the packet is lost. On the other hand, smaller packet sizes result in larger bandwidth use, but lower delays and smaller

gaps if the packet is lost. The Intercom System Engineer and the Network Designer may want to work together in choosing the codec type and packet size suitable for the size of the network, so degradation of network resources does not occur.

9. Select the **Enable VAD** check box, if you want to conserve bandwidth when the audio level is below a given threshold.

   NOTE: VAD (Voice Activation Detection) saves network bandwidth by stopping the flow of audio packets when silence is detected. VAD is similar to VOX.

10. Once you are finished, click **Apply**.

Download RVON-2 Firmware Through AZedit

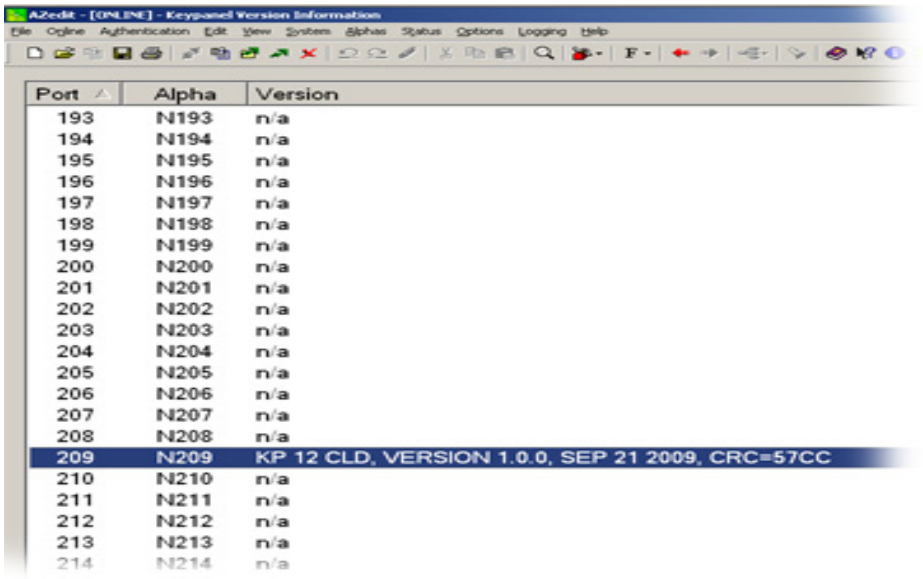
NOTE: AZedit sends firmware directly to the RVON-2 card over Ethernet. This is different from other I/O cards (except the RVON-8) that receive the firmware from the Master Controller. For this reason, verify the PC running AZedit is able to contact the RVON-2 card via the network, or is configured with a Gateway IP Address that can contact the RVON card. If it is not, AZedit is not able to find the RVON-2 card.

To **test the connection**, do the following:

> Ping the **RVON card** from a command line.

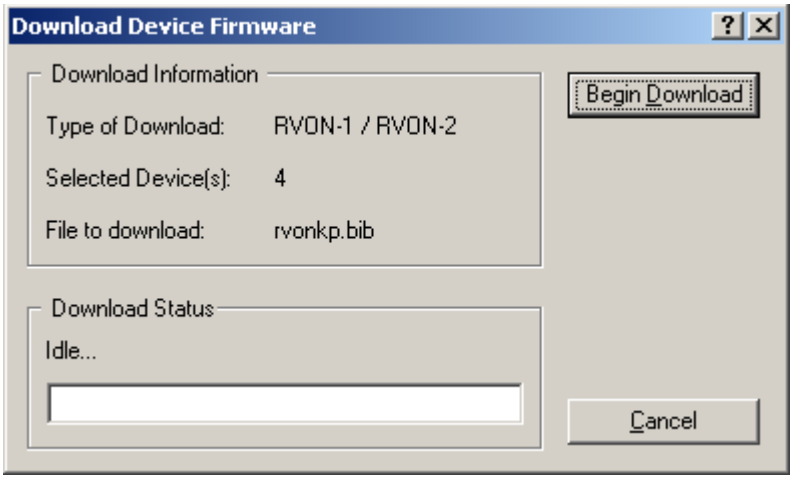
To **download the RVON-2 firmware**, do the following:

1. Open **AZedit**.
2. From the Status menu, select **Software Versions** and then **Keypanels**.
   The Keypanel Version window appears.

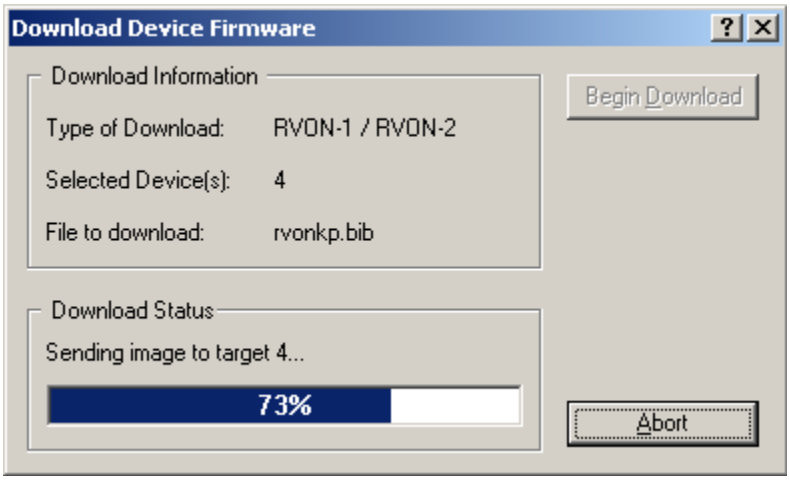


3. At the bottom of the Keypanel Version Information window, select the **Show RVON/OMNEO Versions** check box.
4. Select and right click the **keypanel** which has the RVON-2 installed, and then select **Download RVON....**.
   The Download Device Firmware window appears.
5. Using the Browse feature, browse to the **file to be downloaded**.

6. Click **Open**.
The Download Device Firmware window appears.



7. Click **Begin Download**.
The download begins.



8. Click **OK**.
The RVON-2 firmware download is complete. This takes a minute or two (2) to occur.

IMPORTANT: Do not power down the keypanel until you have verified the new version information from AZedit. If the card loses power while reprogramming the onboard flash memory, the card may become unbootable and may need to have its flash chips reprogrammed at the factory.

9. Verify the **correct version** is shown on the Keypanel Version Information window.

NOTE: You can also download the RVON-2 firmware through *Status|Ports*. You cannot check the version once the download is completed from the Port Status window.

RVON Serial and Telnet Commands

RVON-2 card programming can be done via telnet connection.

There is only one (1) physical connection to an RVON board:

- Backcard RJ-45 J1 (Telnet Only)

Setup

Telnet IP Address, port 23

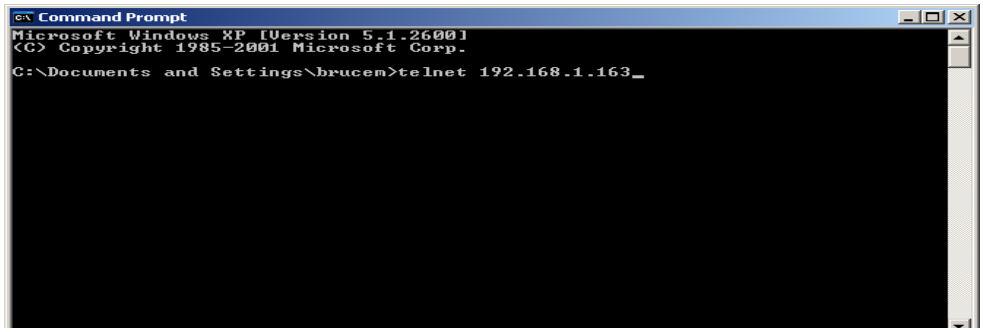
How to Configure the RVON-2 using Telnet

If you cannot access the physical KP 12 CLD with RVON-2 installed on it, you can still configure the card through the use of Telnet. The following instructions show you how to access the Telnet screen and show you some of the information you can see and edit.

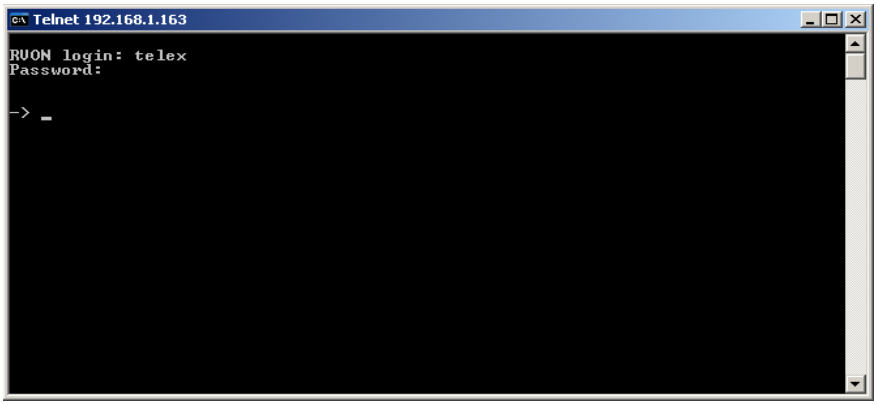
NOTE: These instructions are to help you get to the Telnet screens and give you an overview of what can be done. This is not an all-inclusive document. Not every action that can be performed is contained within the document.

To **display the settings for the RVON-2 Card**, do the following:

1. Open a **command prompt**.
2. At the prompt, type **telnet *[IP ADDRESS]*** (The [IP Address] is the IP Address assigned to the RVON-2 card).

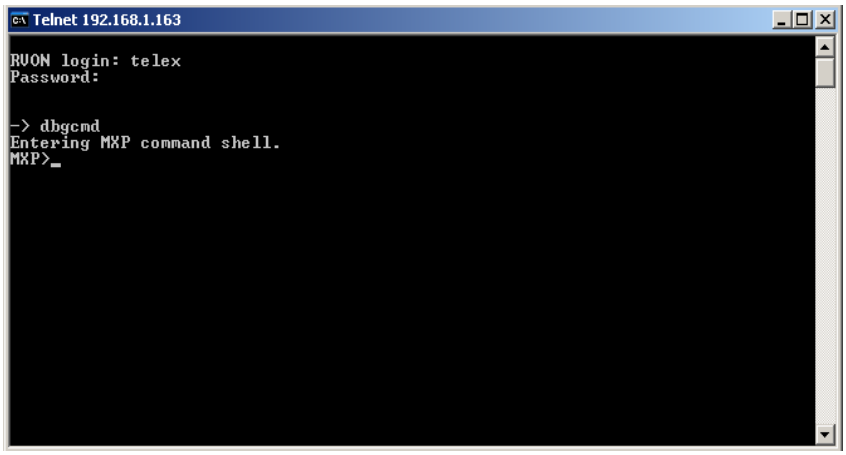


3. Press **Enter**.
   The RVON logon screen appears.

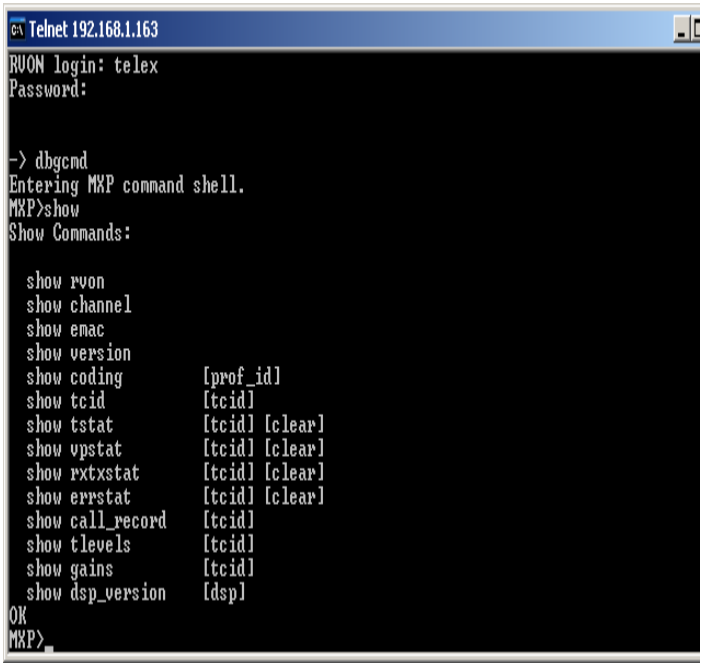


4. In the logon field, type the **RVON logon** (default = telex).
5. Press **Enter**.

6. In the password field, type the **RVON password** (default = password).
7. Press **Enter**.
   A prompt appears.
8. At the prompt, type **dbgcmd** to access the debug command screens.



9. Press **Enter**.
   An MXP prompt appears.
10. At the prompt, type **Show**.
11. Press **Enter**.
    The show commands screen and MXP prompt appears.

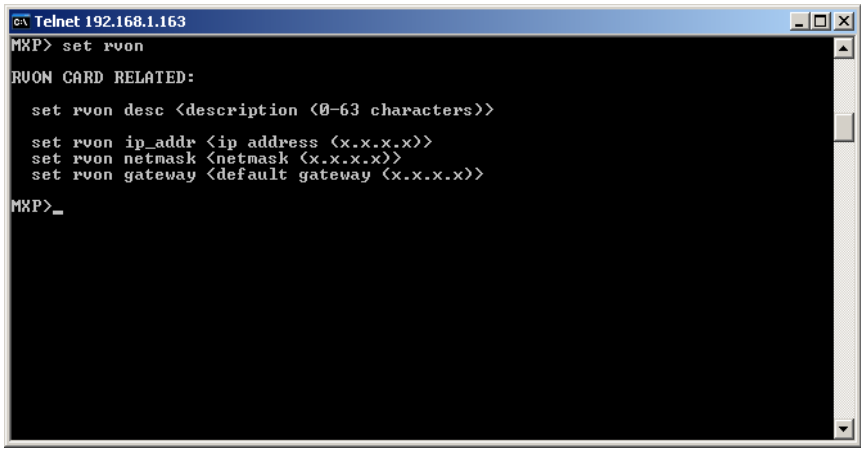


12. At the MXP prompt, type the **show** command you want to see (for example, “show rvon”).
13. Press **Enter**.
    The values for the RVON-2 card appear.

To **edit the RVON-2 configuration**, do the following:

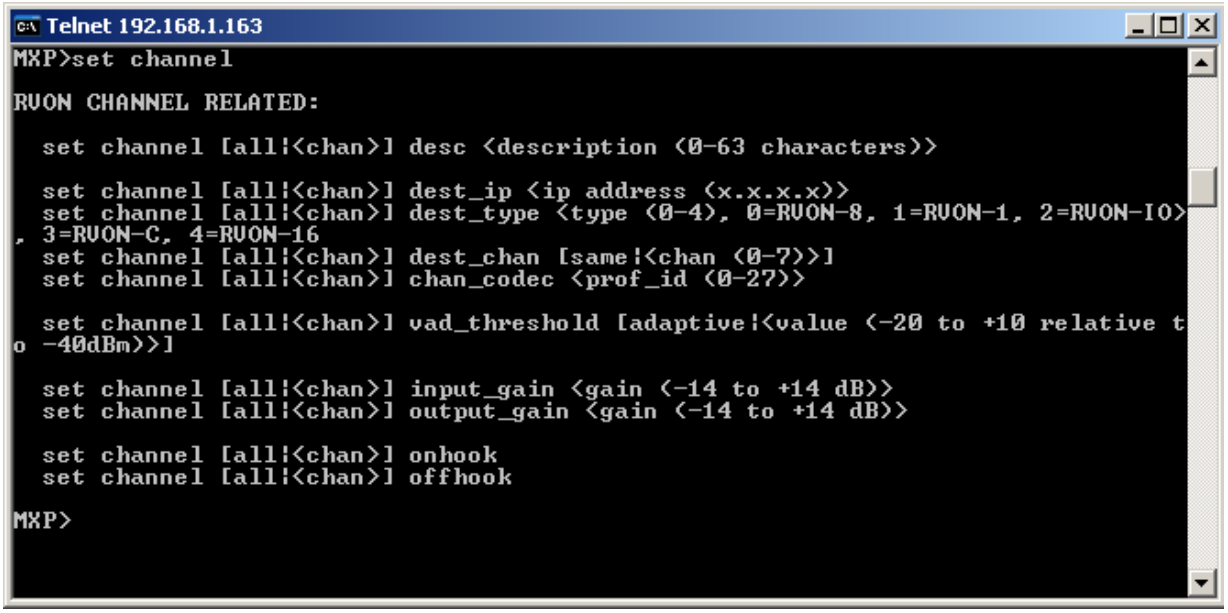
1. Repeat **steps 1 through 9** from above.
2. At the MXP prompt, type either **set RVON** or **set EMAC** (see screen descriptions below).

3. Press **Enter**.



Available parameters for this field are:

set rvon desc	Allows you to edit the RVON description up to 63 characters
set rvon ip_addr	Allows you to edit the IP Address
set rvon netmask	Allows you to edit the netmask
set rvon gateway	Allows you to edit the gateway



Available parameters for this field are:

set channel desc	Allows you to edit the channel description (up to *63 characters*)
set channel dest_ip	Allows you to edit the destination IP Address the RVON-2 card communicates to
set channel dest_type	Allows you to edit the destination type for the device the RVON-2 card talks to
set channel dest_chan	Allows you to edit the destination channel of the device the RVON-2 talks to
set channel chan_codec	Allows you to edit the codec to be used for transferring the data between the two (2) devices
set channel vad_threshold	Allows you to edit the vad threshold for the channel. from -20 to +10dB
set channel input_gain	Allows you to edit the input gain for the RVON-2 card
set channel output_gain	Allows you to edit the output gain for the RVON-2 card.
set the channel onhook	onhook = hang up If the channel was already connected, going offhook has no effect (it is already offhook if connected). Going onhook hangs up the call, and it should then try to reconnect. If the channel was not already connected, going offhook causes it to try and establish a connection. Going onhook in this state has no effect, it is already onhook if idle
set channel offhook	offhook = connected If the channel was already connected, going offhook has no effect (it is already offhook if connected). Going onhook hangs up the call, and it should then try to reconnect. If the channel was not already connected, going offhook causes it to try and establish a connection. Going onhook in this state has no effect (it is already onhook)

OKI KP 12 CLD Quick Start Guide

Requirements

You must have the following:

- Phillips Screwdriver
- Hex Nut Driver

Firmware Requirements

- KP 12 CLD version 1.3.0

IMPORTANT: The keypanel firmware must be updated before you install the OKI module into the keypanel. For more information, see "Download Firmware to the Color Keypanel Family From AZedit" on page 59.

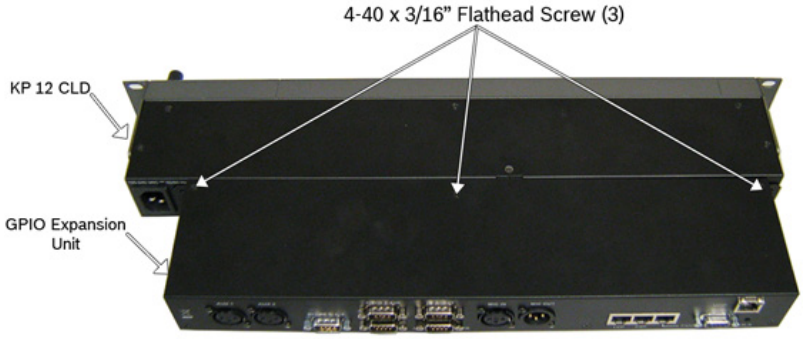
OKI Installation – KP 12 CLD

To **install the OKI board set for the KP 12 CLD**, do the following:

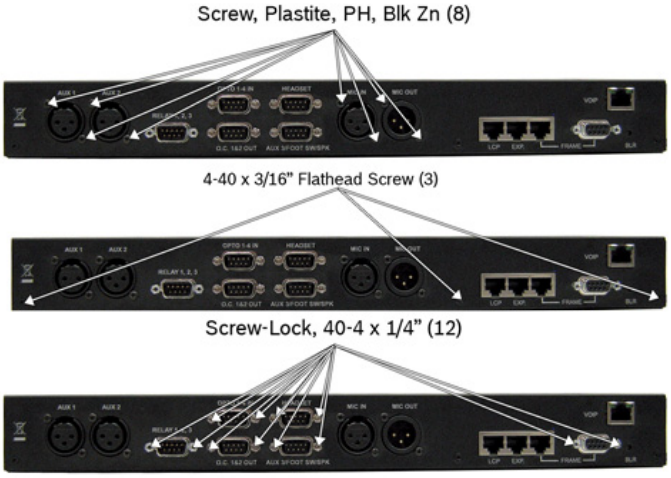
NOTE: Because all the changes are made to the expansion box, remove the expansion box from the KP 12 CLD unit.

1. Power off the **KP 12 CLD unit**.

2. Remove the **expansion box** from the KP 12 CLD unit.



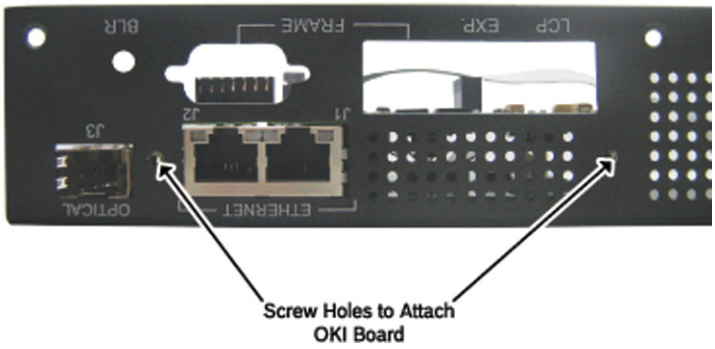
KP 12 CLD Rear View



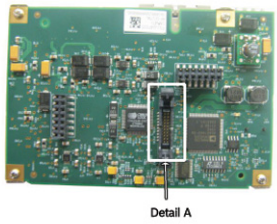
NOTE: Steps 3 and 4 are only necessary if an RC option is installed.

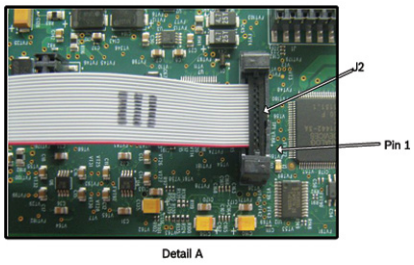
3. Using a hex nut driver, remove the **12 hex screws** from the KP 12 CLD expansion box.
4. Using the same screwdriver, remove the **eight (8) pan head screws** from the KP 12 CLD expansion box.
5. Using a Phillips screwdriver, remove the **six (6) flat head screws** from KP 12 CLD expansion box.
6. Remove the **KP 12 CLD expansion box cover**.
7. If installed, remove the **RVON standoffs**.
8. Replace the **standoffs with the provided pan head screws (3)**.

IMPORTANT: Ensure that all RJ-45 connectors on the board are flush with the chassis openings.

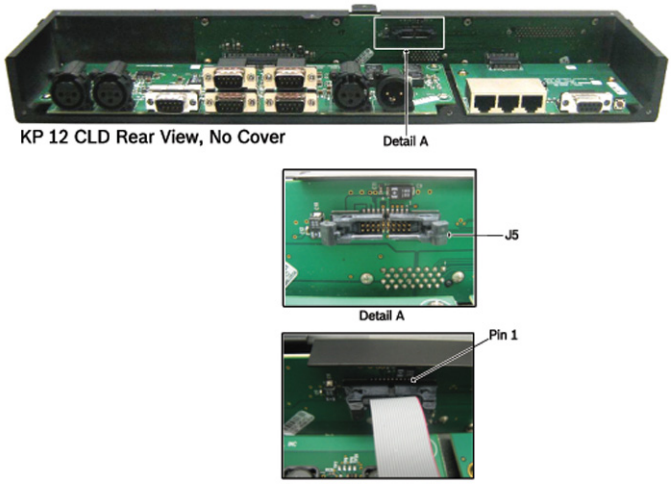


9. Using the provided pan head screws (2), secure the **OKI board set to the OKI KP 12 CLD expansion box replacement cover**.





NOTE: It is easier to install the OKI board set to the OKI KP 12 CLD expansion box back panel while the board set and the chassis are laying upside down, see picture below.



NOTE: Align the red stripe on the cable with Pin 1.

10. Attach one (1) **end of the provided ribbon cable to J2 on the OKI board set**.
11. Attach the **other end of the ribbon cable to J5 on the KP 12 CLD expansion box main board**.
12. Replace the existing **cover** with the OKI KP 12 CLD expansion box cover.

IMPORTANT: Ensure that all RJ-45 connectors on the board are flush with the chassis openings.

13. Replace the **eight (8) pan head screws**.
14. Replace the **six (6) flat head screws**.
15. Replace the **12 hex screws**.
16. Using the existing screws, secure the **OKI KP 12 CLD expansion box cover** to the chassis.

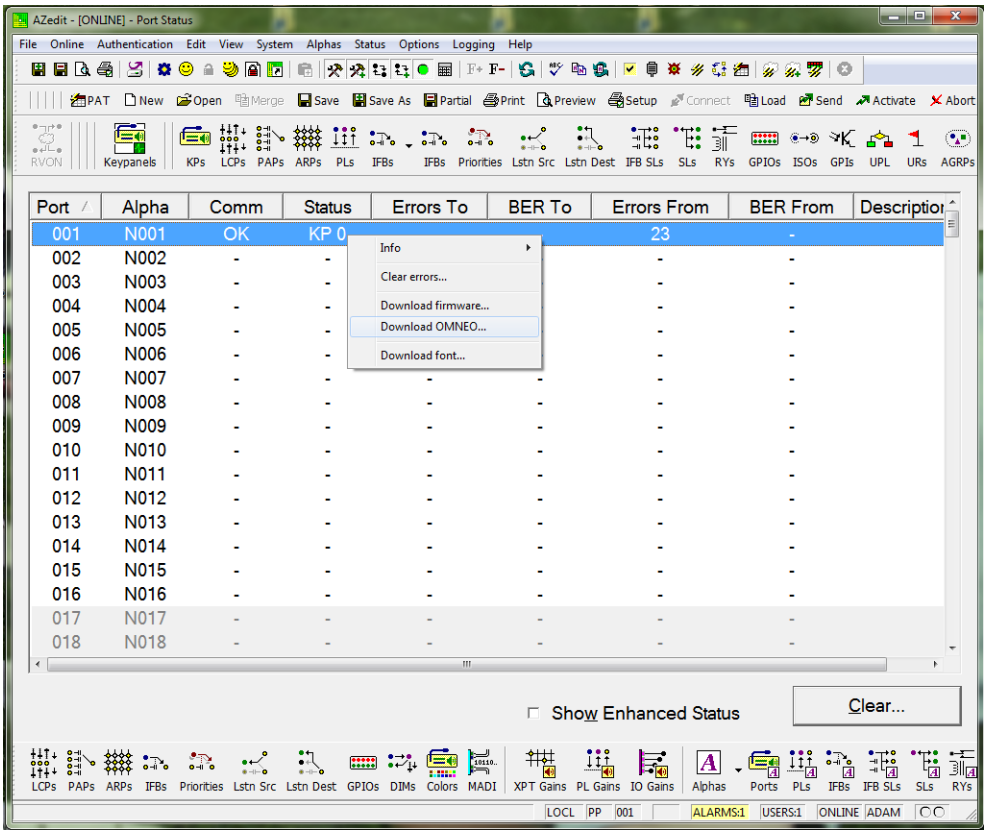
17. Remount the **KP 12 CLD expansion box** to the KP 12 CLD unit.

Upgrade the OKI Board Firmware

To **upgrade the OKI board firmware**, do the following:

1. From the Status menu, select **Port**.
   The Port Status window appears.

2. Right-click the **port** where the OKI KP-12 Classic keypanel is assigned.
A popup menu appears.

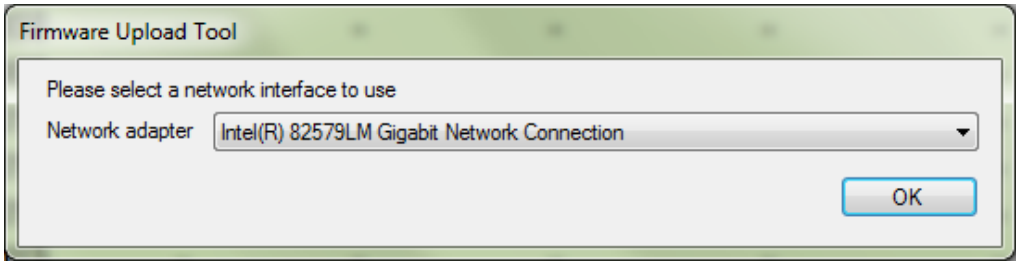


3. From the popup menu, select **Download OMNEO**.
A User Access Control warning appears.

NOTE: If this is the first time running the Firmware Upload Tool, do the following:

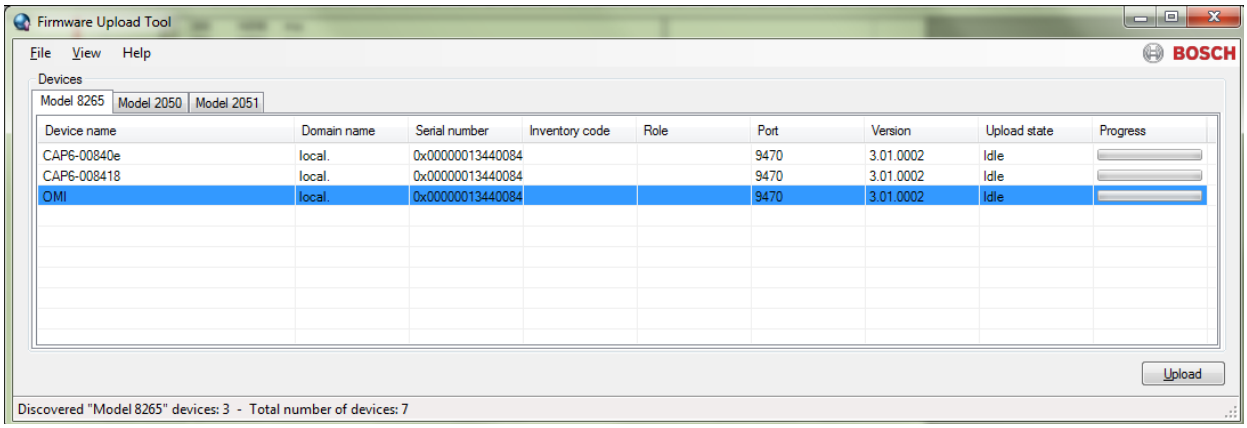
a. In the Browse for Folder window, navigate and select the **Firmware Upload Tool folder**.

b. Click **OK**.
A select network interface message appears.



c. From the Network adapter drop down menu, select the **network interface** you want to use.

4. Click **OK**.
The Firmware Upload Tool appears.



5. Select the **OKI Device** you want to upload the new firmware.

6. Click **Upload**.
You can watch the progress of the upload in the Progress column.

APPENDIX 11

Cyrillic Support

AZedit and Cyrillic Support

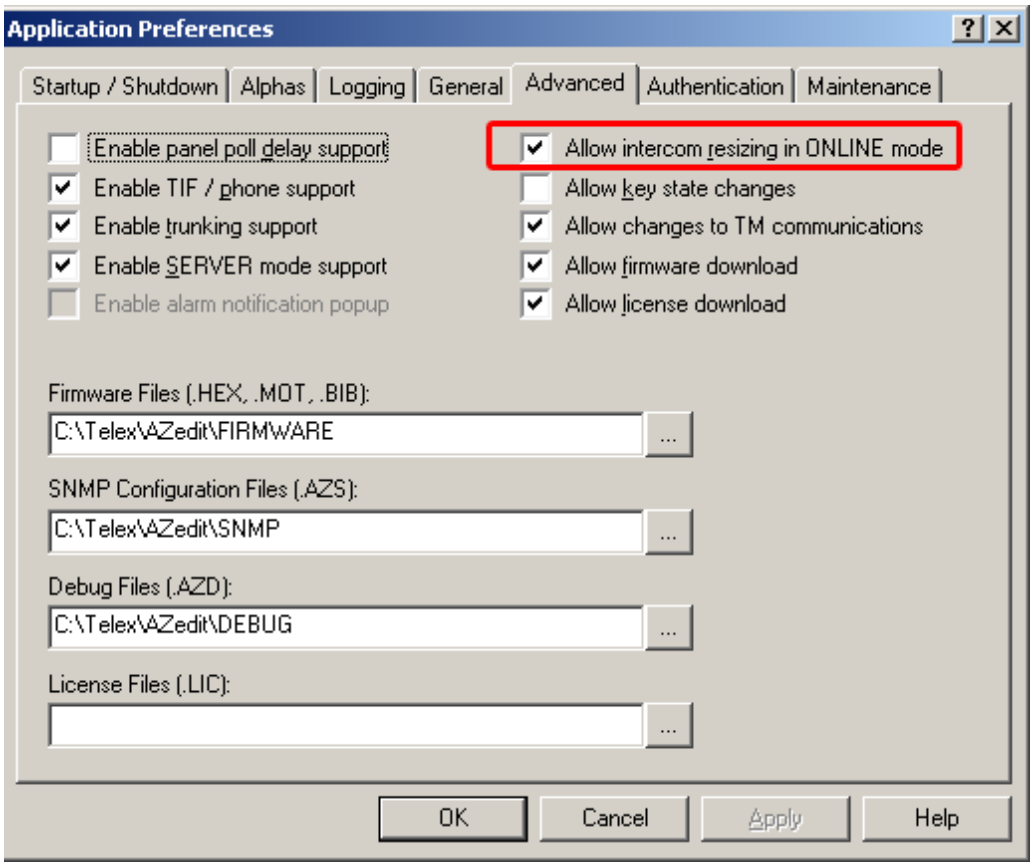
Minimum firmware revision requirements for Cyrillic support are:

- MCII-e v2.4.0 or later
- AIO-8 v10.5.0 or later
- AIO-16 v1.3.0 or later
- Cronus v1.8.0 or later
- Zeus III v1.3.0
- KP 32 CLD v1.3.0 or later
- KP 12 CLD v1.1.0
- KP12/4U v1A.0.26C (Cyrillic character set only)
- Font file KP32-CLD-UNICODE.KPF v0.05

To **configure AZedit for Cyrillic operation**, do the following:

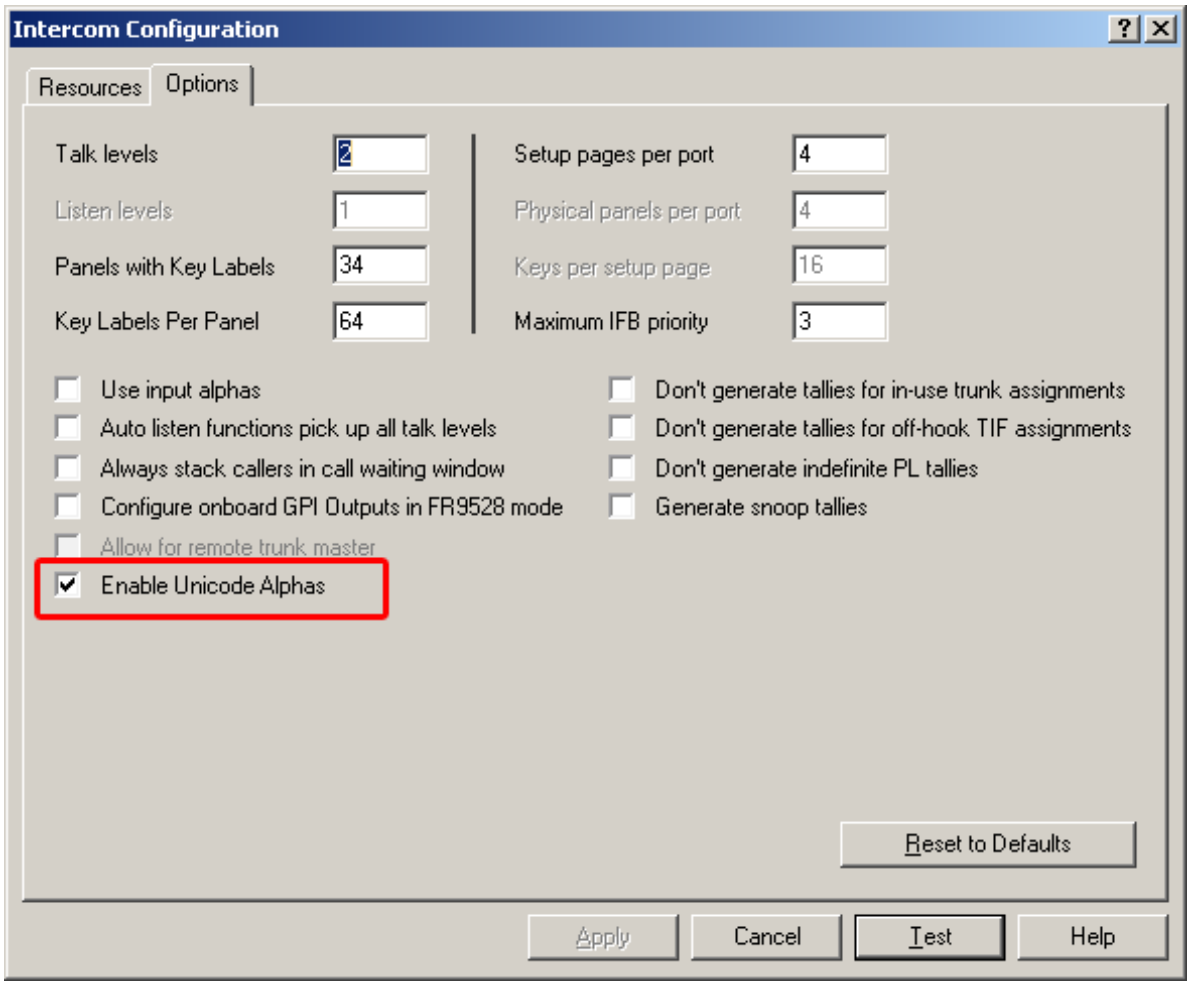
1. On the KP CLD keypanel, select **Service|Alphas|8 Chars (Unicode)|Standard|Save and Restart**.
2. From the Options menu in AZedit, select **Preferences**.
   The Application Preferences window appears.
3. Select the **Advanced** tab.
   The Advanced page appears.

4. Select the **Allow intercom resizing in ONLINE mode** check box.



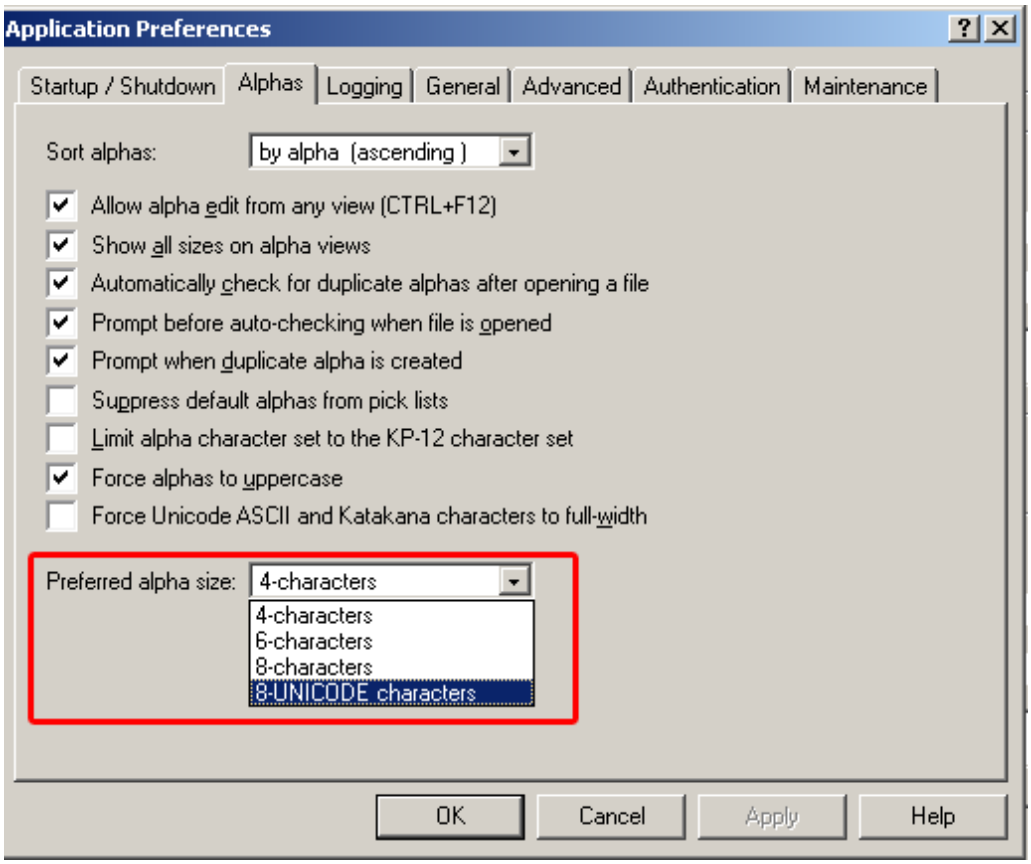
5. Click **Apply**.
6. Click **OK**.
   The Application Preferences window closes.
7. From the Options menu, select **Intercom Configuration**.
   The Intercom Configuration window appears.
8. Click the **Options** tab.
   The Options page appears.

9. Select the **Enable Unicode Alphas** check box.



10. Click **Apply**.
The Intercom Configuration window closes.
11. From the Options menu, select **Preferences**.
The Application Preferences window appears.
12. Click the **Alphas** tab.
The Alphas page appears.

13. From the Preferred alpha size drop down menu, select **8-UNICODE characters**.



14. Click **Apply**.
15. Click **OK**.
    The Application Preference window closes.
16. From the Online menu, select **Send Changes.**
    The changes are sent to the intercom.

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