

KP 12 CLD Color Keypanel *User Manual*

up to and including version 1.1.1



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.		
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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.	

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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Introduction

The revolutionary KP 12 CLD from RTS introduces several new features designed to enhance capability and ease of use. The intuitive graphic interface is housed inside two (2) full-color, 4.2” 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 host to a rich and intuitive graphic user interface that indicates different keypad functions in different colors.

Modern, Modular Design

Flush 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, and emulation of traditional level control functions, and two 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.

USB

For future expansion and other planned interface features.

User-Programmable Buttons

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.

Specifications

LCD Display

Size
4.2" LCD
Resolution:
432 x 96 (RGB)

Input Sources

Panel Microphone / GPIO MIC IN
Electret Microphone Input Level
Nominal Level
-42.5dBu
Maximum Level
-22.5dBu
Impedance
1 to 10k Ω

Headset
Dynamic Microphone Input Level
Nominal Level
-60dBu
Maximum Level
-30dBu
Impedance
 $\leq 600\ \Omega$

Electret Microphone Input Level
Nominal Level
-42.5dBu
Maximum Level
-22.5dBu
Impedance
1 to 10k Ω

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 ± 2 dB

MIC OUT
Nominal Output Level
8dBu
Maximum Output Level
20dBu
Frequency Response
100 - 15kHz ± 2 dB

Headphone Speaker
Power
80mW into 600 Ω
Impedance
?150 Ω

Panel Speaker
Frequency Response
250 - 15kHz ± 2 dB
Sensitivity, dB/W/dB
84

Power
4W, 8 Ω

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 8 for pinouts).

Panel Headset
4-, 5-, 6-pin Female XLR (see "4-, 5-, 6-, 7-pin XLR(Female) Headset" on page 8 for pinouts).

USB
USB Type A
DB-9, RJ-45 (Supports RTS RJ-11 cabling or Standard Cat5 cabling) See "RJ-45 Frame (RTS RJ11 Cable)" and "DB-9 (male) Frame" on page 10 for pinouts.

Keypanel Audio Input / Output
RJ-45 (see "RJ-45 EXP (expansion)" on page 10 for pinouts).

Expansion
Male XLR-3 (see "XLR-3(male) - Mic OUT" on page 9 for pinouts).

GPIO MIC OUT
Female XLR-3 (see "XLR-3(female) - Mic IN" on page 9 for pinouts).

GPIO MIC IN
Female XLR-3 (see "XLR-3(female) - AUX 1& 2" on page 9 for pinouts).

GPIO Aux 1-2
DB-9 (see "DB-9 (male) Headset" on page 9 for pinouts).

GPIO Headset
DB-9 (see "DB-9 Relay 1, 2, 3" on page 8 for pinouts).

GPIO Relays 1-3
DB-9 (see "DB-9 (male) Open Collector (1-2)" on page 8 for pinouts).

GPIO Open Collector
DB-9 (see "DB-9 (male) Opto-Isolator (1-4)" on page 8 for pinouts).

GPIO Opto-Isolators 1-4

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): 3.76lbs (1.705kg)
KP 12 CLD expansion panel only: 2.46lbs (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

KP 12 CLD Block Diagram

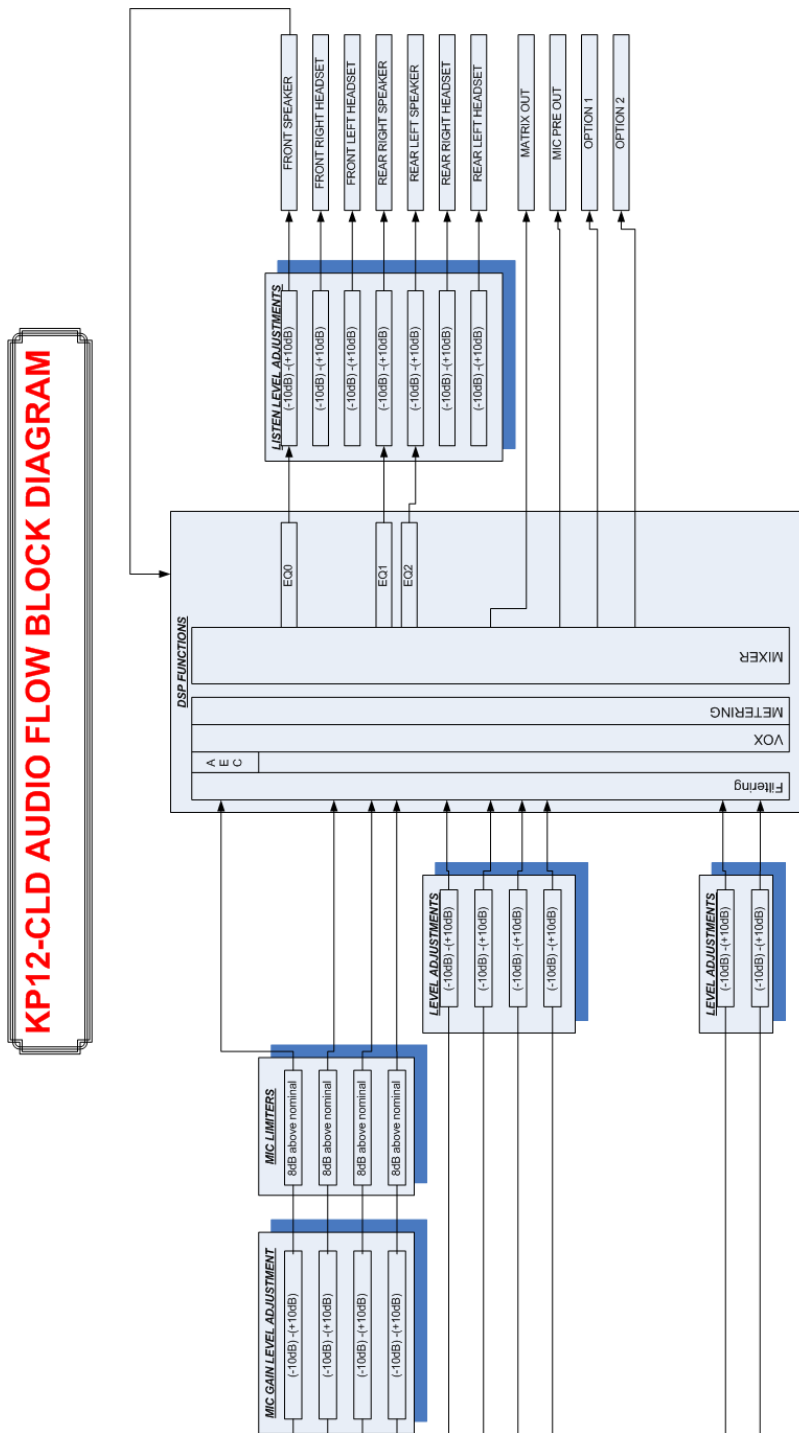


FIGURE 1. KP 12 CLD Block Diagram

Reference View - KP 12 CLD (90007880000)



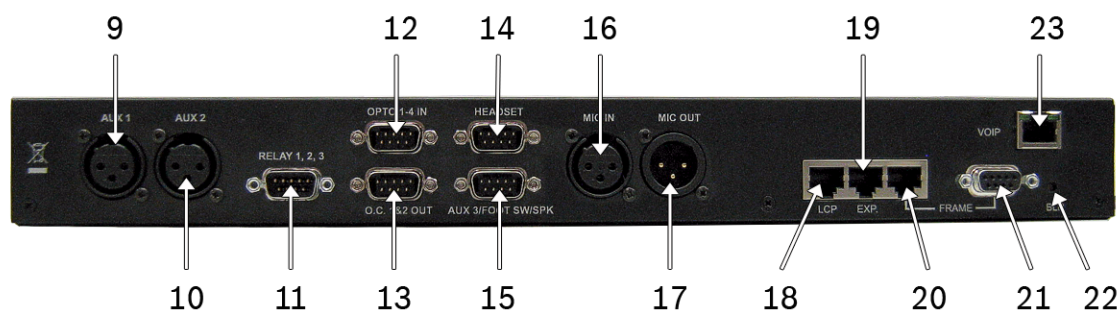
FIGURE 2. KP 12 CLD Front Panel

Front Panel Descriptions

1. **USB Connector** - Power enabled USB connector. Can be used to charge a cell phone or download/upload data to or from the keypanel.
2. **1 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 33
4. **Panel Speaker** - For more information, see "Mute the Microphone/Speaker" on page 42
5. **UPG button** - The user can assign any function 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 65.
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 Rear

FIGURE 3. KP 12 CLD Back Panel and KP 12 CLD Expansion Panel

Rear Panel Descriptions

- | | |
|--|--|
| <ol style="list-style-type: none"> 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 Reset - For more information, see “Download Firmware Using the BLR Function” on page 61. | <ol style="list-style-type: none"> 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 Reset - For more information, see “Download Firmware Using the BLR Function” on page 61. |
|--|--|

Optional GPI 32 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

Optional RVON-2 Option Card

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

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 -

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 -

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 -

Main and Expansion Panel

DB-9 (male) Frame	
Pin	Assignment
1	RS485 +
2	RS485 -
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	RS485 -
3	Audio IN (from Matrix) +
4	Audio OUT (to Matrix) +
5	Audio OUT (to Matrix) -
6	Audio IN (from Matrix) -
7	RS485 +
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	RS485 + (pair 1&2)
2	RS485 - (pair 1&2)
3	Audio IN (from Matrix) +
4	Audio OUT (to Matrix) +
5	Audio OUT (to Matrix) -
6	Audio IN (from Matrix) -
7	RS485 + (pair 7&8)
8	RS485 - (pair 7&8)

RJ-45 EXP (expansion)	
Pin	Assignment
1	GND
2	GND
3	GND
4	GND
5	RS485 +
6	RS485 -
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

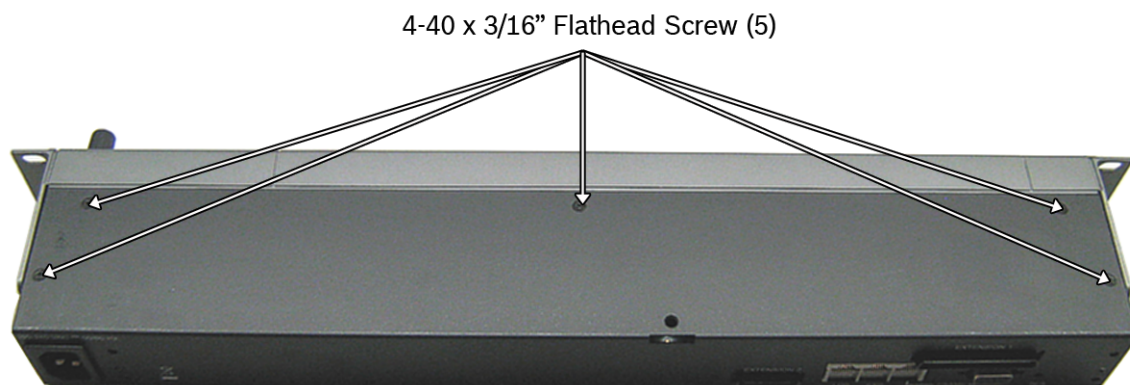
Use the Switch Bank, shown in Figure 4, Figure 5, and Figure 6 to configure the cable scheme you want to use. There are three (3) available Ethernet cabling arrangements:

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.

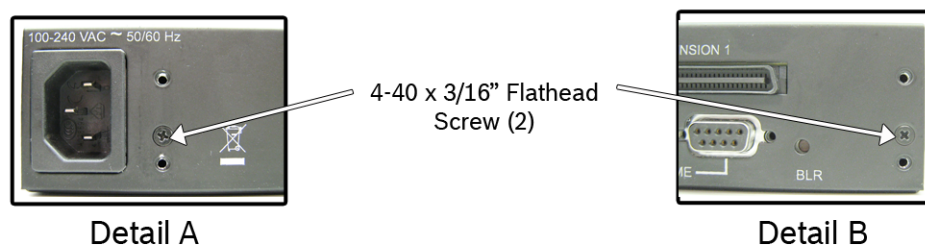


KP 12 CLD Top View

2. Remove the **following screws**.



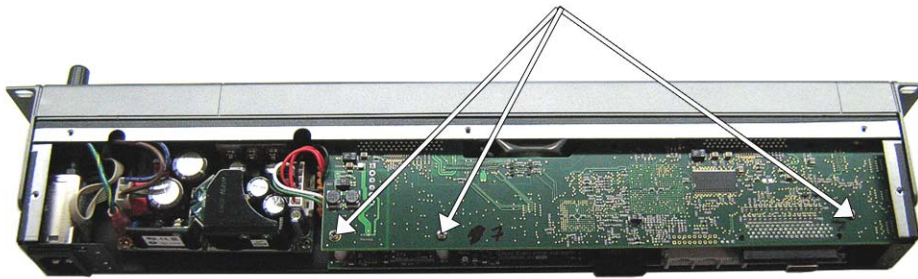
Back View



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

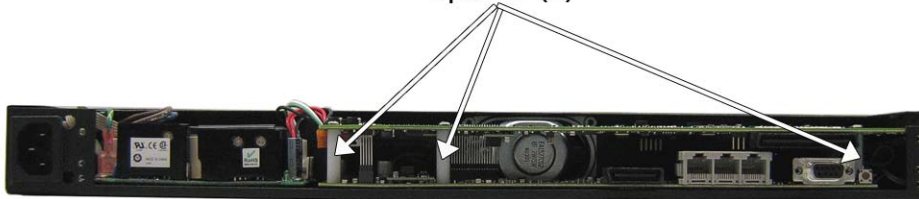
4. Remove the **three (3) stabilizing screws and standoffs**.

4-40 x 1.25" Pan Head Screw (3)



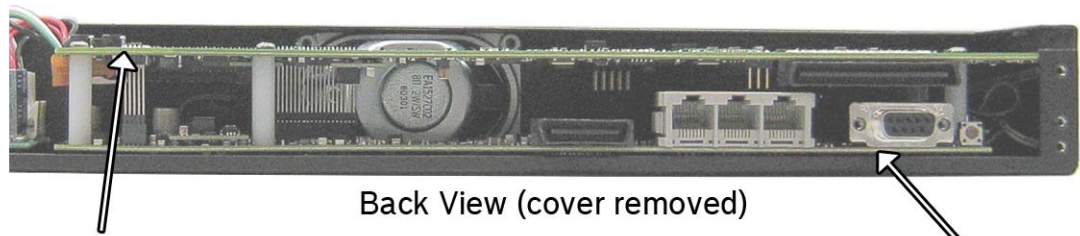
Top View (cover removed)

Spacer (3)



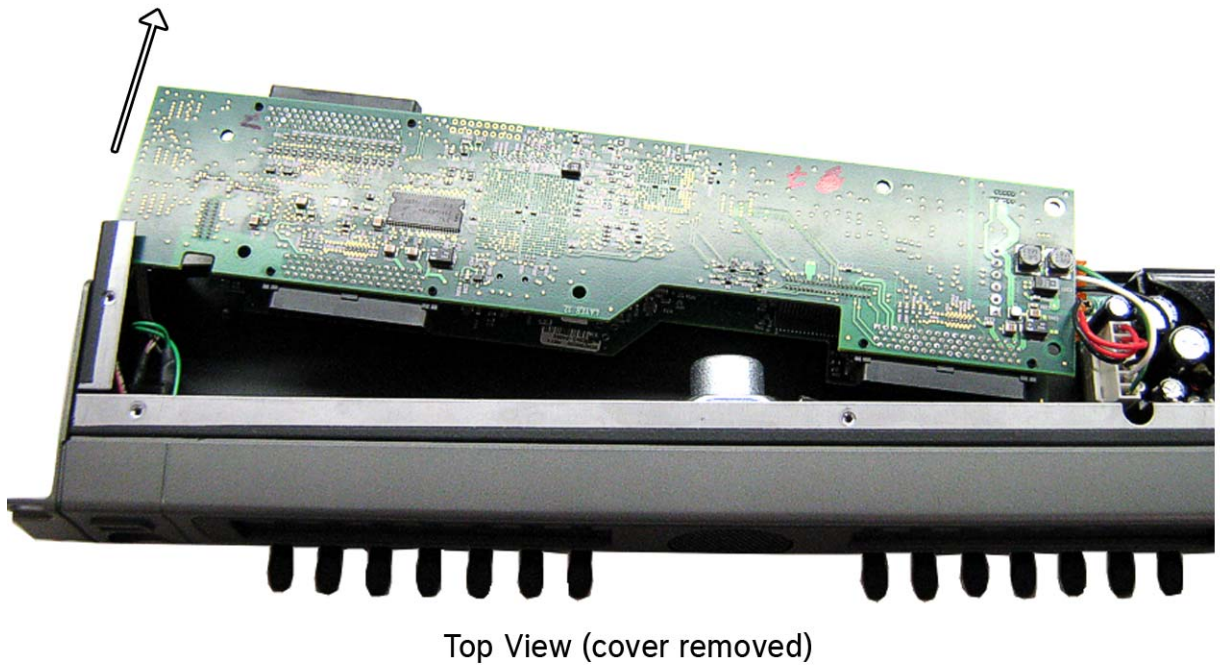
Back View (cover removed)

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

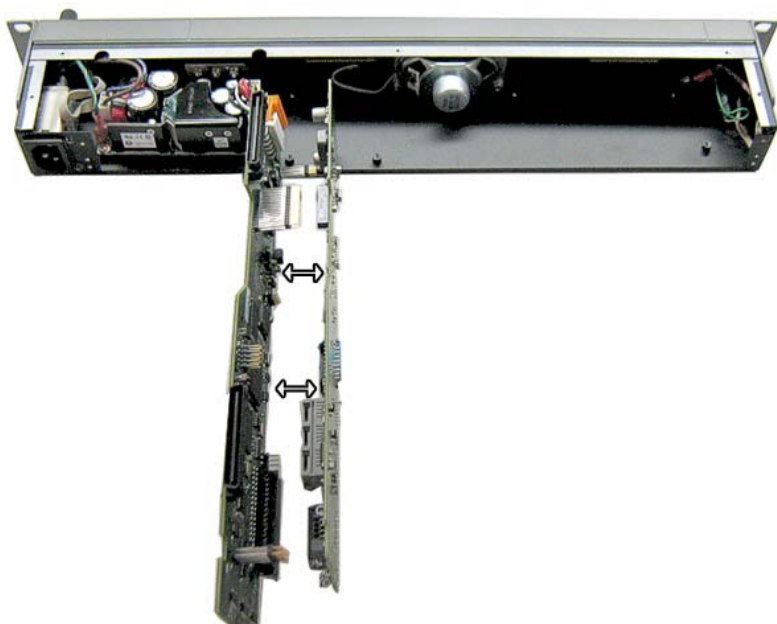


KP 12 CLD
digital board

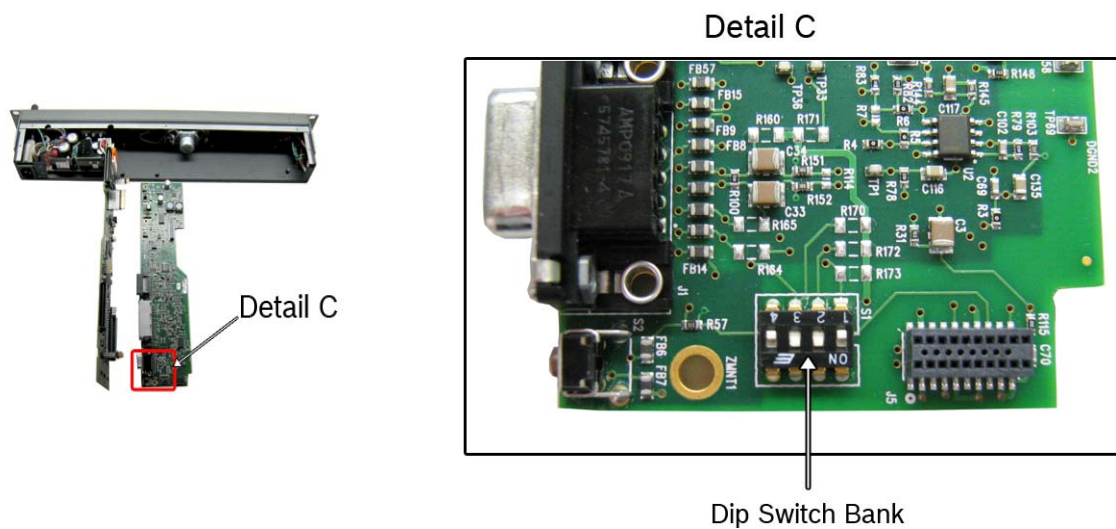
KP 12 CLD
analog board



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.



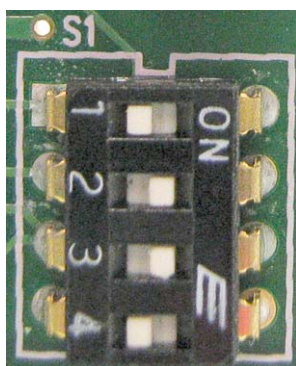


FIGURE 4. RTS Standard Cable (USOC)

USOC Wiring

Switch 1 - OFF	1	Orange
Switch 2 - ON	2	Green
Switch 3 - ON	3	Blue
Switch 4 - OFF	4	Blue & White
	5	Green & White
	6	Orange & White

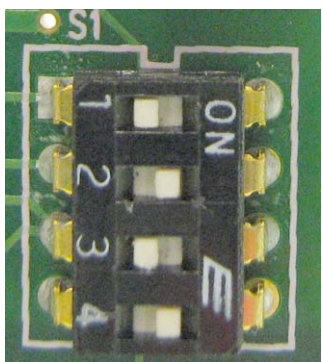


FIGURE 5. Standard CAT-5 Cable using pin 1 and pin 2 for RS485 functionality (568A)

568A Wiring

Switch 1 - ON	1	Green & White
Switch 2 - OFF	2	Green
Switch 3 - ON	3	Orange & White
Switch 4 - OFF	4	Blue
	5	Blue & White
	6	Orange
	7	Brown & White
	8	Brown

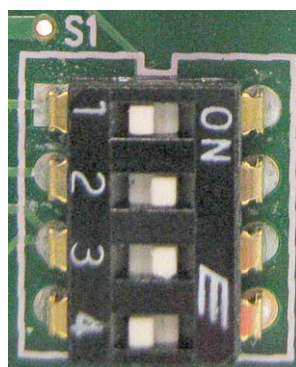


FIGURE 6. Standard CAT-5 Cable using pin 7 and pin 8 for RS485 functionality (568B)

568B Wiring

Switch 1 - OFF	1	Orange & White
Switch 2 - ON	2	Orange
Switch 3 - OFF	3	Green & White
Switch 4 - ON	4	Blue
	5	Blue & White
	6	Green
	7	Brown & White
	8	Brown

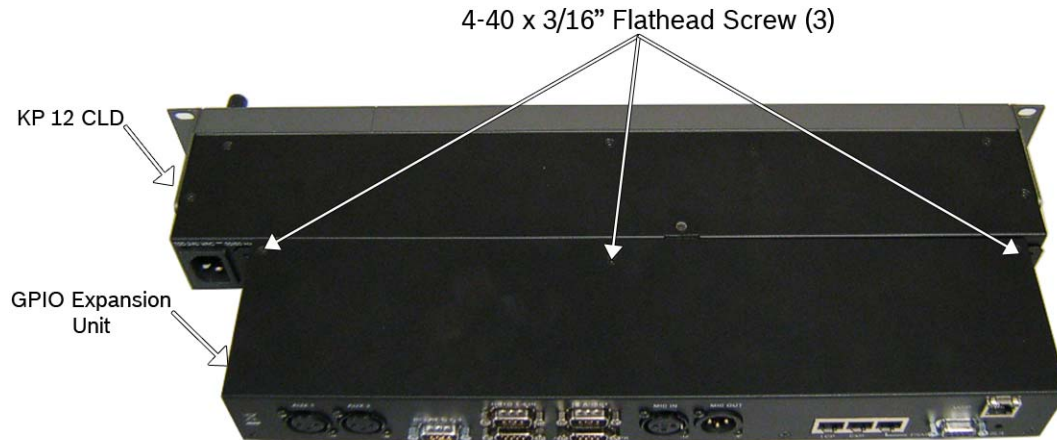
Accessing the Switch Bank on the KP 12 CLD Expansion Panel

Because the KP 12 CLD has a separate KP 12 CLD expansion panel, when setting the mode of operation when the KP 12 CLD expansion panel is installed, you must set the 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:

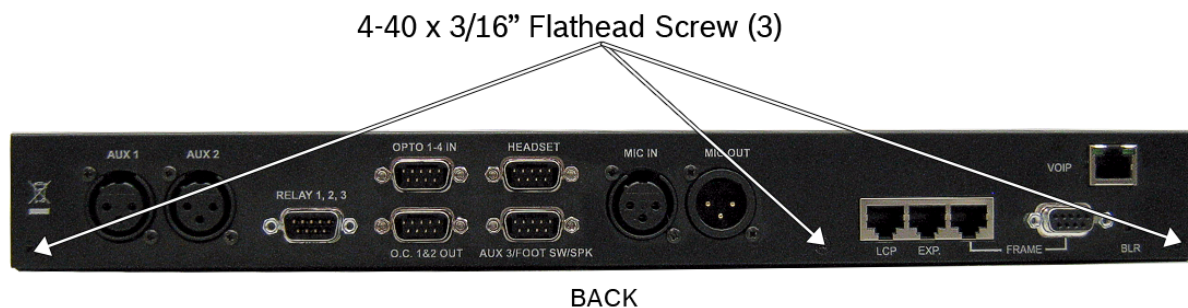
- USOC
- RS-485 using pin 1 and pin 2
- RS-485 using pin 7 and pin 8

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

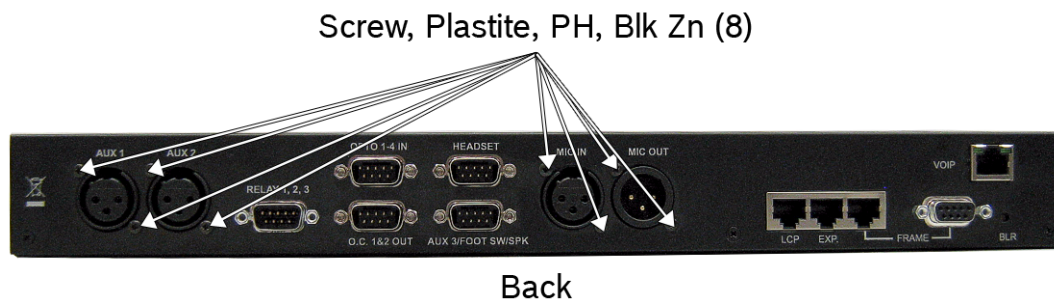
1. Remove the **three (3) screws** on the top of the unit.



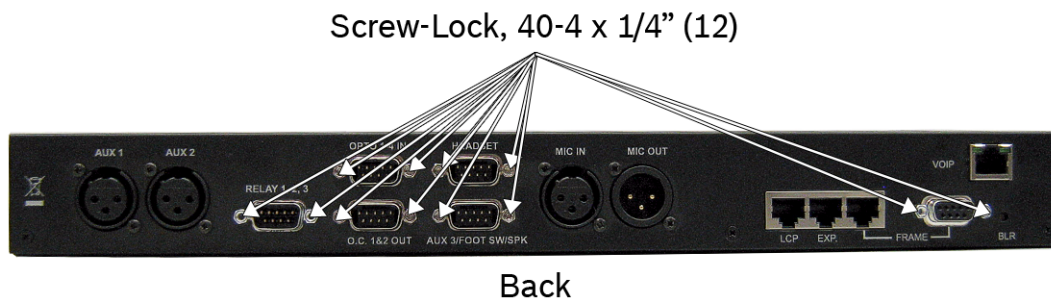
2. Remove the **three (3) screws** from the back panel of the KP 12 CLD expansion panel.



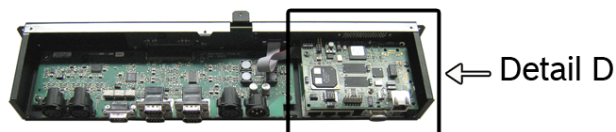
3. Remove the **XLR connector screws (8)**.



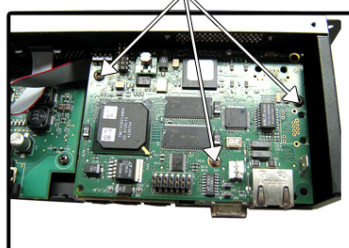
4. Using a 1/4" nut driver, remove the **DB-9 connector hex screws** (12).



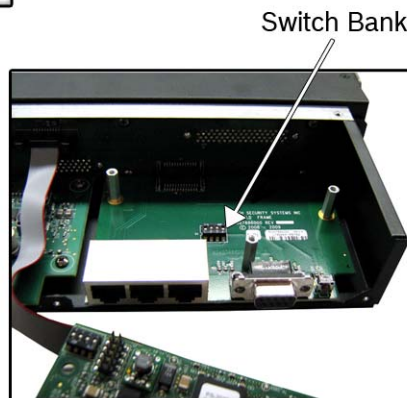
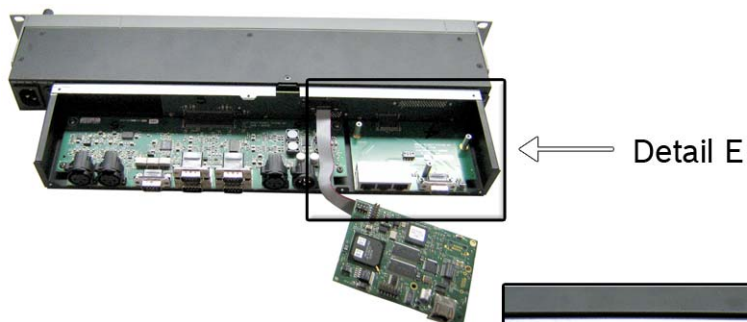
5. Carefully slide the top/back chassis to remove the **back panel**.
6. Remove the **RVON-2 board screws** (3), securing the RVON-2. (Optional)



Screw, 4-40 x 1/4", PH (3)



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



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.

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.....	2.1.6 or later

KP 12 CLD Installation

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

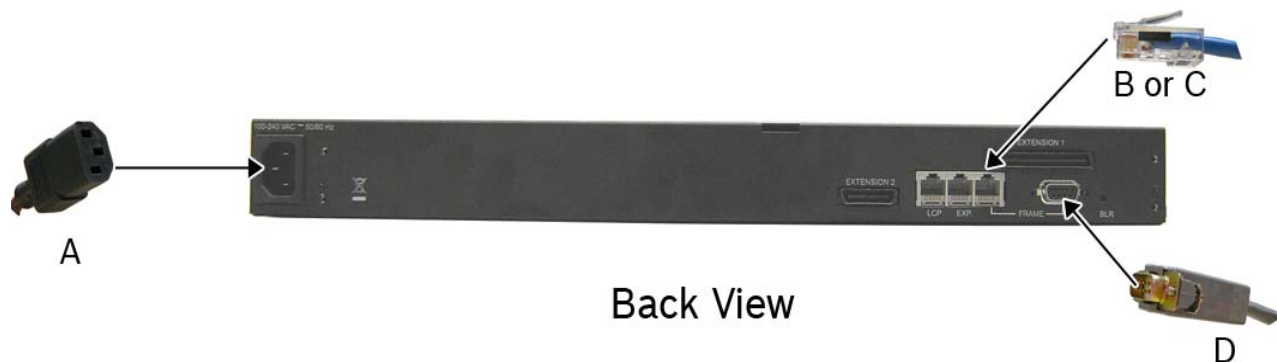


FIGURE 7. KP 12 CLD Installation

NOTE: To install the GPIO Expansion Panel, see “KP 12 GPIO Expansion Panel Installation” on page 21.

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 23 and “Service Menu, Set Address” on page 137.

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 8.

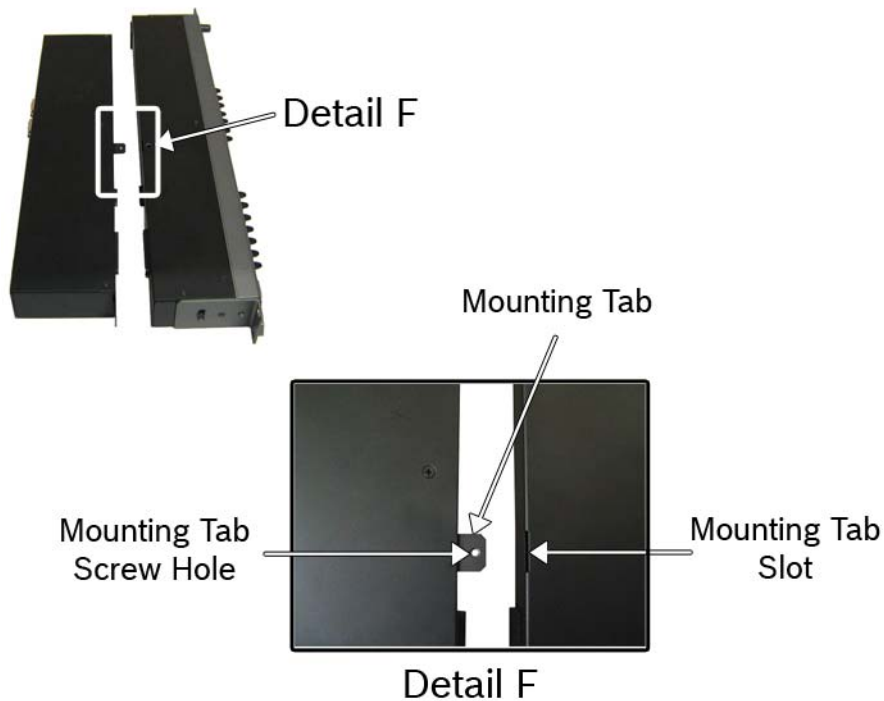
4. Using the KP 12 CLD and AZedit, configure your **keypanel** for operation.

KP 12 GPIO Expansion Panel Installation

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

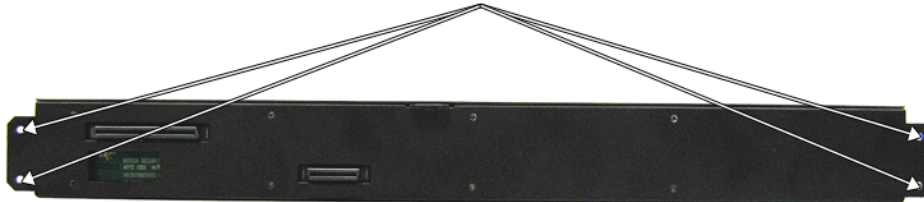
1. Align the **mounting tab** found on the front of the KP 12 CLD KP 12 CLD expansion panel with the mounting tab slot located on the rear of the KP 12 CLD unit.

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.



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

4-40 x 1/4" PH, Black Screw (4)



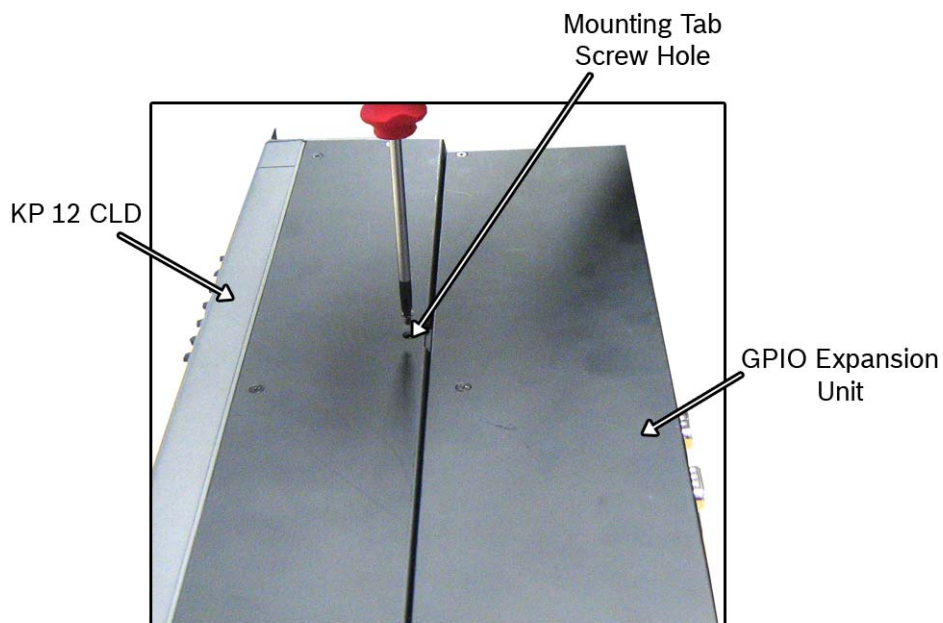
GPIO Expansion Unit Front View



KP 12 CLD Rear View

GPIO Expansion Unit Attachment Points

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



Power Up

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

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  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 immediately, but does not display  for 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 • 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 for further instruction.

a. To manually address the KP 12 CLD, see “Service Menu, Set Address” on page 137.

REFERENCE:

- ADAM with AIO-8 cards, see the ADAM installation user manual (P/N 9330-7467-000 which can be found at <http://www.rtsintercoms.com/manuals.php>).
- ADAM CS, see the ADAM CS Installation user manual (P/N 9330-7517-000 which can be found at <http://www.rtsintercoms.com/manuals.php>).
- ADAM with AIO-16 cards, see the AIO-16 user manual (P/N 9350-7726-000 which can be found at <http://www.rtsintercoms.com/manuals.php>).
- Cronus, see the Cronus user manual (P/N 9350-7770-000 which can be found at <http://www.rtsintercoms.com/manuals.php>).
- Zeus III, see the Zeus III user manual (P/N 9350-7843-000 which can be found at <http://www.rtsintercoms.com/manuals.php>).

NOTE: If you are connecting to an ADAM 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 7. 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 MCP5, MCP6, or MCP90 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.

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

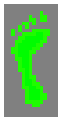
Icon	Icon Name	Description
	Matrix Connected	The keypanel is connected to the Matrix. This icon briefly displays at connection.
	Disconnected From Matrix	There is no connection between the Matrix and the keypanel. This icon briefly displays and then disappears.
	Firmware Download	The firmware is being 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 57.
	Footswitch Active	The footswitch is active.
	Footswitch Enabled	The footswitch is enabled, but not active. NOTE: When a keypanel key is pressed 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.
	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 42. 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
	Front Speaker	The front speakers are enabled. To enable the front speaker, see “Audio Options Menu, Speaker” on page 92.
	Front Speaker Muted	The front speakers are muted. To mute the front speaker, see “Mute the Microphone/Speaker” on page 42.
	Rear Headphones	The rear headphones are active. To activate the rear headphones, see “Audio Options Menu, Headset Spkr” on page 81.
	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 92.
	Rear Speaker Muted	The rear speaker is muted. To mute the rear speaker, see “Mute the Microphone/Speaker” on page 42.
	Both Headphones	Both front and rear headphones are enabled. To enable the front headphones, see “Audio Options Menu, Headset Spkr” on page 81.
	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.

TABLE 3. Display Icon Descriptions

Icon	Icon Name	Description
	Both Microphones Muted	Both front and rear microphones are muted. To mute the front microphone, see “Mute the Microphone/Speaker” on page 42. 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.
	Both Speakers	Both front and rear speakers are enabled. To enable the front speaker, see “Audio Options Menu, Speaker” on page 92.
	Both Speakers Muted	Both front and rear speakers are muted. To mute the front speaker, see “Mute the Microphone/Speaker” on page 42.
	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 138.
	Hot Mic	The hot mic is active. To activate Hot Mic, see “Audio Options Menu, Output Lev” 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 93.
	Tone 500Hz Enabled	Tone 500Hz is enabled on the keypanel. To enable tone 500Hz, see “Audio Options Menu, Tone Gen” on page 93.
	Main Volume Bar	The main volume bar is used to control the volume for the speaker, rear speaker, headset, and rear headset. If the volume of a speaker or headset is turned down to mute, the non-flashing 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 +10dB to -80db, or Mute. NOTE: Listen must be assigned on the key assignment for this function to operate. If listen is not
	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 119.
	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 119.

Default Keypad

There are two (2) different keypad sequences you can apply to the KP 12 CLD unit, the Default keypad sequence and the Classic keypad sequence. See “KP 12 CLD Keypad Quick Reference” on page 149 to view the Keypad Sequence Quick Reference.

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

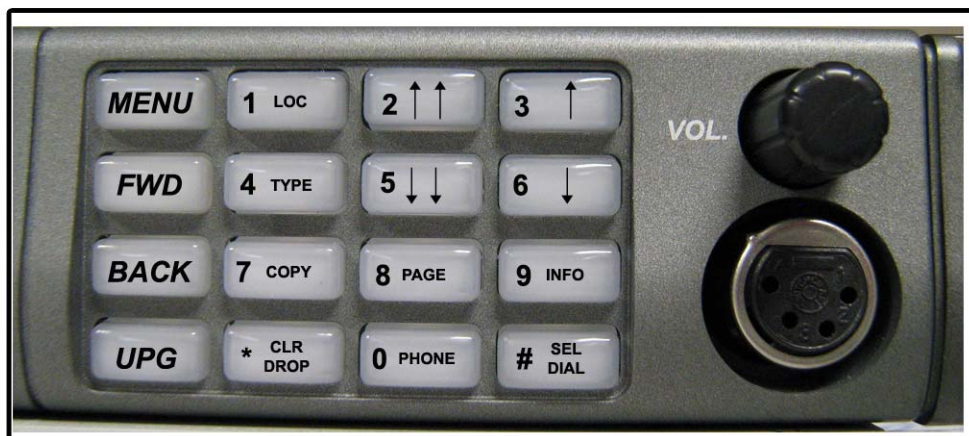
1. On the KP 12 CLD, press the **MENU** button.
The top-level menu appears.
2. Using the 3(↑) or 6(↓), scroll to **Service**.
3. Press the **SEL** button.
The Service menu appears.
4. Using the 3(↑) or 6(↓), scroll to **Keypad**.
5. Press the **SEL** button.
Sequences and Backlight appear in the display.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

KP 12 CLD Default Keypad

NOTE:

For information on Default keypad sequences, see “Default Keypad Sequence” on page 152.

For information on the Classic Keypad, see “Classic Keypad Sequence” on page 150.



KEYPAD BUTTON	DESCRIPTION ^a
MENU button	The MENU button is used to access the top-level menu structure. > Press the Menu button once. <i>The top-level menu appears in the display.</i> NOTE: If the keypad backlight is set to Activate (<i>Service Keypad Backlight</i>), 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 back 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 items quickly.
LOC (1) button	The LOC (1) button displays LOCL in the display. Press the SEL button to display the available key assignments for the local intercom system.
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 CWW window in the keypanel display. If the keypanel operator wants to assign the caller (THRE) a key, use the COPY (7) key on the keypad, and then tap the keypanel key where THRE is to be assigned.
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.
↑↑ (2) button	The ↑↑(2) button is used to page down through available key assignments or menu options.
↓↓ (5) button	The ↓↓ (5) button is used to page up through available key assignments or menu options.

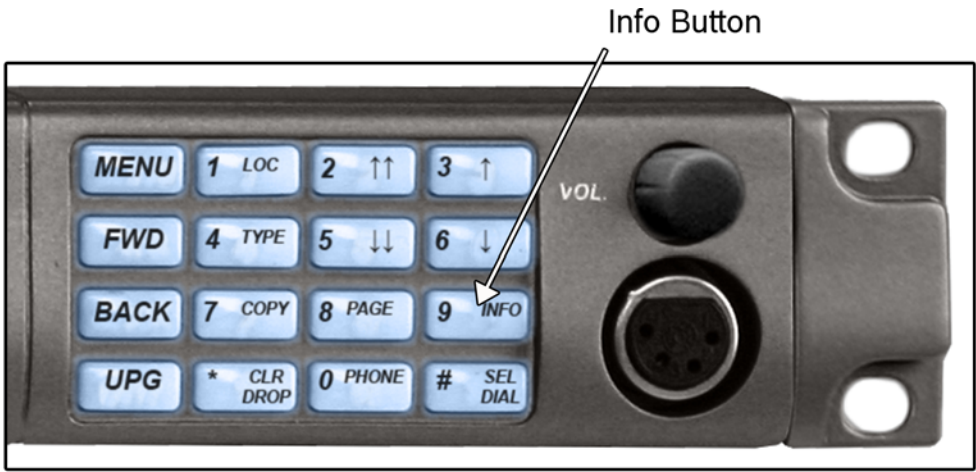
PAGE (8) button	The PAGE button is used to access a different setup page. There are four (4) available setup pages. To change setup pages using the keypad, do the following: > Press 0,8, 1–4, depending on the setup page you want to view.
PHONE (0) button	The PHONE button access the TIF connection allowing you to dial out from the keypanel.
↑ (3) button	The ↑ (3) button moves you forward through the menu structure or available key assignments one (1) at a time. When in the MENU mode, pressing the ↑ (3) button moves you forward through the menu option highlighted.
↓ (6) button	The ↓ (6) button moves you backward through the menu structure or available key assignments one (1) at a time. When in the MENU mode, pressing the ↓ (6) button moves you back 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.
INFO (9) button	The INFO (9) button displays commonly used menu items in a side scroll list. Using the ↑ (3) and ↓ (6) button you can scroll through the list of options available. When a selection is highlighted, press the SEL button to navigate down one (1) level in the menu structure. By default, the INFO (9) list contains the following options: <i>Id, Lev2, Lstn, Name, Type, Mtx, Tone, Page, VRst, Asgn, Test, and Ver.</i> NOTE: For more details about the INFO button, see “INFO Button” on page 32.
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

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 93.
Page	Displays the current page visible on the keypanel.
VRst	Opens the Key Volumes Reset menu. For more information, see “Press the SEL button. A blue arrow appears next to the selected option.” on page 82.
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 139.
Ver	Displays the firmware version currently loaded on the KP 12 CLD. For more information, see “Display Menu, Version” on page 102.

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.

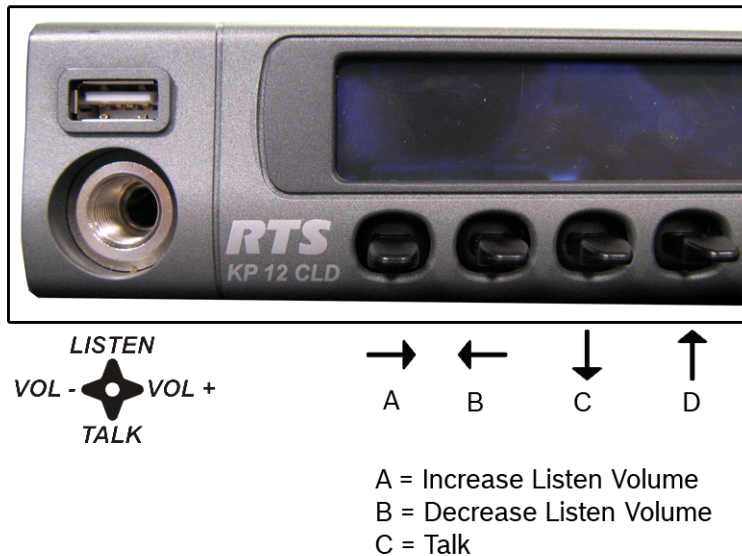


FIGURE 8. KP 12 CLD Key Position Explanation

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.

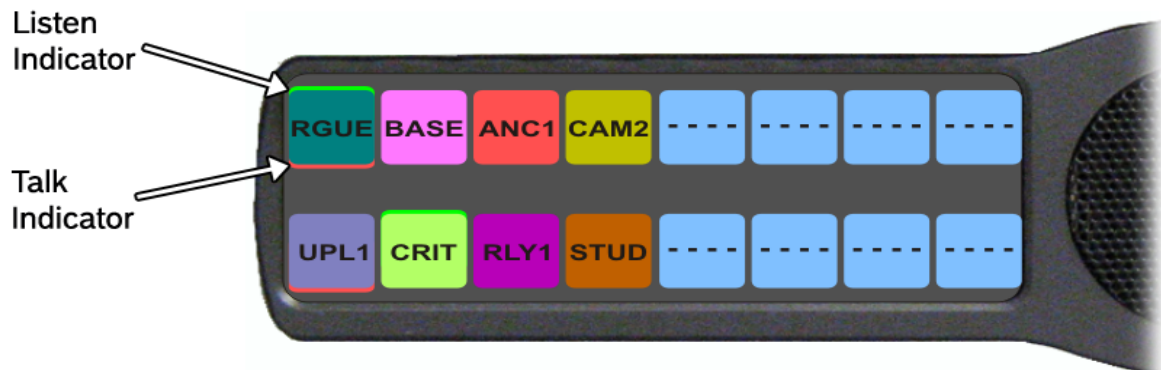


FIGURE 9. Talk / Listen Indicators

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 46.

Key Gain Adjustment

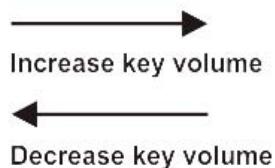
The **Key Gain Adjustment** is used to change the crosspoint listen gain on a specific key from the Matrix. This adjustment is automatically reflected in AZedit on the Crosspoint Gains window. (*System|Gains|Crosspoint*).

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.

Volume Adjustments

Listen Volume

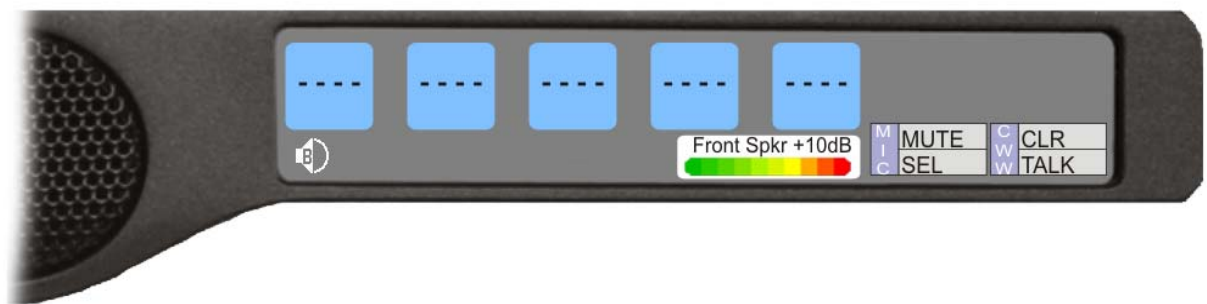
By default, the volume control adjusts the Listen Volume for the speaker (front/rear) or headset (front/rear), whichever is shown in the keypanel display. The main volume also adjusts the level of incoming audio from the intercom matrix and Auxs.

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

To **adjust listen 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.

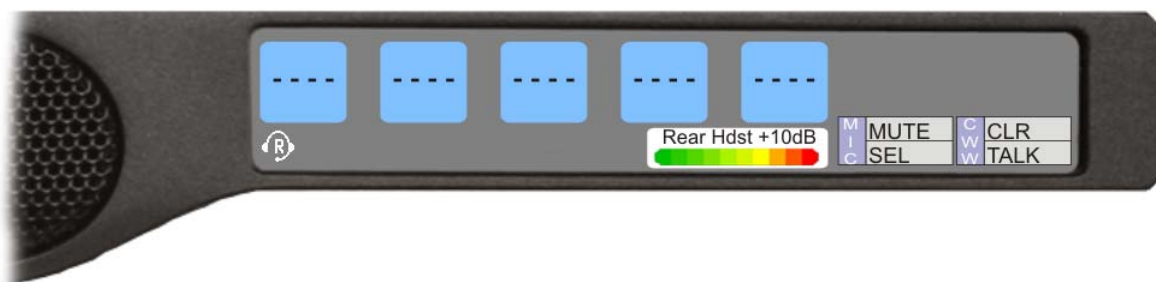
NOTE: When the MAIN VOLUME encoder is turned, the volume level bar appears in the display.



NOTE: You can save the volume adjustments to be power-up defaults using “Service Menu, Save Cfg”.

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

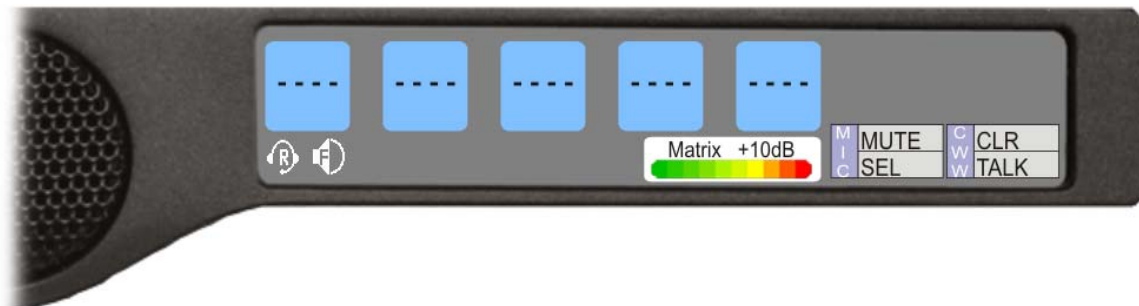
By default, the **Aux Volume** control adjusts the listen volume for the listen source, which includes Aux 1-Aux-3, RVON option card Channel 1, Channel 2, and Matrix IN.

Aux Volume and RVON-2 ranges from *+10dB to -48dB* and *Mute*.

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

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

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

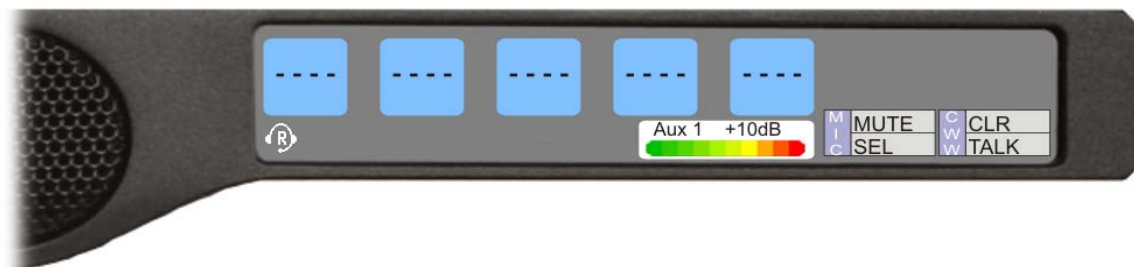


NOTE:

- You can save the volume adjustments to be power-up defaults using “Menu System, Save Config” on page 121.
- The audio sources appear in the Aux Volume menu if they are enabled (see “Mixing” on page 77). The volume3 coder is enabled or disabled from the Aux/Mtx Inputs menu item (see “Service Menu, Aux/Mtx Inputs” on page 125).

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

- > Push the **VOLUME encoder** once.
The aux volume focus switches to next source 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:

<i>Talk+auto follow</i>	Talk and listen can be activated separately. The listen assignment listens to whichever assignment is assigned to the talk key.
<i>Talk+auto listen</i>	Talk and listen activates when talk is activated.
<i>Talk+auto mute</i>	Listen turns off when talk is activated.
<i>Talk+auto reciprocal</i>	Listen is always on and talk can be turned on or off.
<i>Talk+auto table</i>	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.
<i>All Call</i>	Activating this key activates all keys to the left of it, up to, but not including another All Call key.
<i>Talk+DIM</i>	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 115.

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 68.

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 152.

1. On the KP 12 CLD keypad, press the **6** (↓) or **3** (↑) key to scroll through the list of point-to-point connections available.

The selected port is highlighted in white.



NOTE:

- You can also use the **5** (↓↓) or **3** (↑↑) 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 150.

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

- a. Press **5**.
 - b. Use the **6** (↑↑) or **9** (↓↓) key 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 16 on the keypanel flashing, to indicate an incoming call. The KP 12 CLD keypanel can keep a history of the last nine (9) callers and displays them in a scrollable, graphical window above key 14. The CWW displays four (4) calls at a time (only three (3) in Kanji) with a scroll arrow appearing if there are more than four (4) 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 “Default Keypad” on page 29).
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 keypad display. Unlike the keypad talley indicators in previous keypad versions, the graphical CWW and the call flashes (tallies), rather than the CWW button. You can configure the tally duration in the “Key Options Menu, Tallies” on page 118.

NOTE: If indefinite tallies are enabled, and the caller holds down the talk key, the tally lasts until the caller releases the talk key.

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.

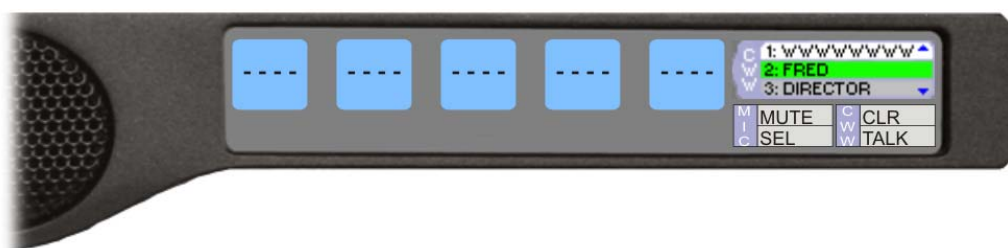


FIGURE 11. Graphical Call Waiting Window Highlighted Call

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. Press **down** on key 14.
The talk indicator bar appears on the key display and the assignment becomes visible on key 16
2. Start **talking** to the caller.
The highlight in the CWW list turns green when talking with the caller.
3. 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 source selected, 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 more information, see “Reference View - KP 12 CLD (90007880000)” on page 6.

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. For more information, see Table 6 on page 43.



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

The **MIC SEL** display alternates between Headset and Speaker with each key press. When active the Headset or Speaker icon appear in the keypanel display.

To **switch between active sources**, do the following:

- > On the KP 12 CLD, press **down** on the MIC SEL switch (see Figure 2 on page 6).
The audio source is changed.

NOTE:

- The audio source chosen directly affects the listen destination to which the audio is sent.
- You must configure the source on the keypanel for the type of operation you require. For more information, see
 - “Audio Options Menu, Headset Spkr” on page 81.
 - “Audio Options Menu, Panel Mic” on page 89.
 - “Audio Options Menu, Headset Mic” on page 79.

TABLE 6. Source Configuration Matrix and Display icons

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

TABLE 6. Source Configuration Matrix and Display icons

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

The **UPG** (User Programmable Key) gives you the option to assign frequently used menu items to a single key on the keypad, eliminating the need to navigate through the menu structure. Not all menu items can be programmed to the UPG keys, 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 keypad. For more information, see “To activate the screen saver from a UPG key” on page 45.

The UPG key can also be used to activate relays. When a relay is assigned to the key, and while the keypad 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 3(↑) or 6(↓), **navigate** to the menu item you want to assign to either UPG 1 or UPG 2.
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 3(↑) or 6(↓), select **Service**.
3. Press **SEL**.
The Service menu appears.
4. Using the 3(↑) or 6(↓), select **Local GPIO**.
5. Press **SEL**.
GPIO Inputs and GPIO Outputs appears in the display.
6. Using the 3(↑) or 6(↓), 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 3(↑) or 6(↓), 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 3(↑) or 6(↓), select **UPG 1**.
The relay is assigned to the desired UPG key.

NOTE: Once a relay is programmed to the key, and the keypad 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 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service menu appears.
4. Using the 3(↑) or 6(↓), select **Scrn Saver**.
Activate, Delay and Mode appear.

5. Using the 3(↑) or 6(↓), select **Activate**.
6. Press **SEL**.
The screen saver activates on the keypanel.
7. Press and hold for two (2) seconds the **UPG key** you want to assign this option.
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 114.

Keypanel Color Window

The **Keypanel Color** window, shown in Figure 13, is used to change the color assigned to a function type, key assignment, assignment group and talk/listen indications. You can modify both local intercoms and remote intercom assignments, 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)
- running AZedit version 3.7.0 or later

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

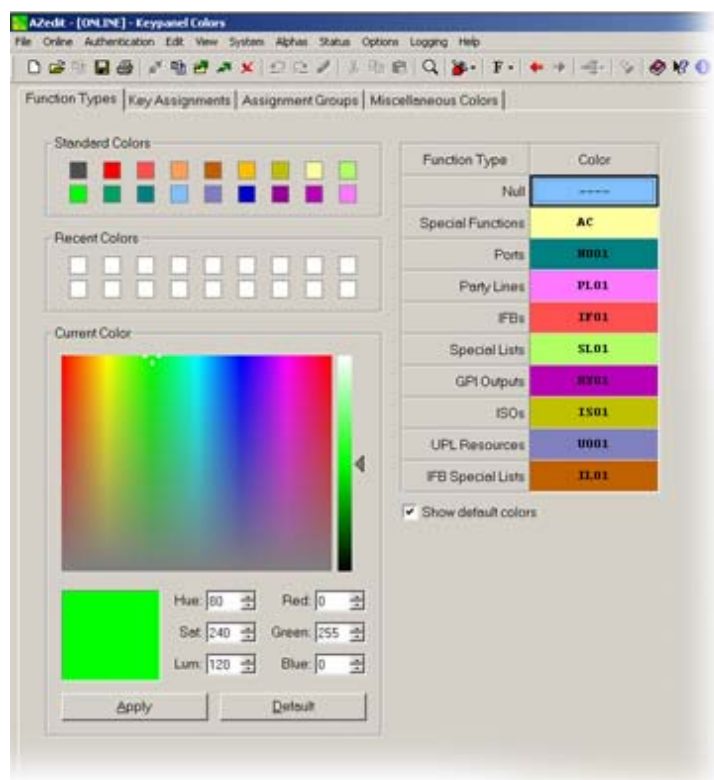


FIGURE 13. Keypanel Colors Window

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 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.

Function Type	Color
Null	----
Special Functions	AC
Ports	N001
Party Lines	PL01
IFBs	IF01
Special Lists	SL01
GPI Outputs	RY01
ISOs	IS01
UPL Resources	U001
IFB Special Lists	IL01

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 indicates the default colors assigned to the function types are shown. If not selected, the color column in the right pane displays white boxes.

Key Assignment Page

The **Key Assignment** page, shown in Figure 15, is used to change the default 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.

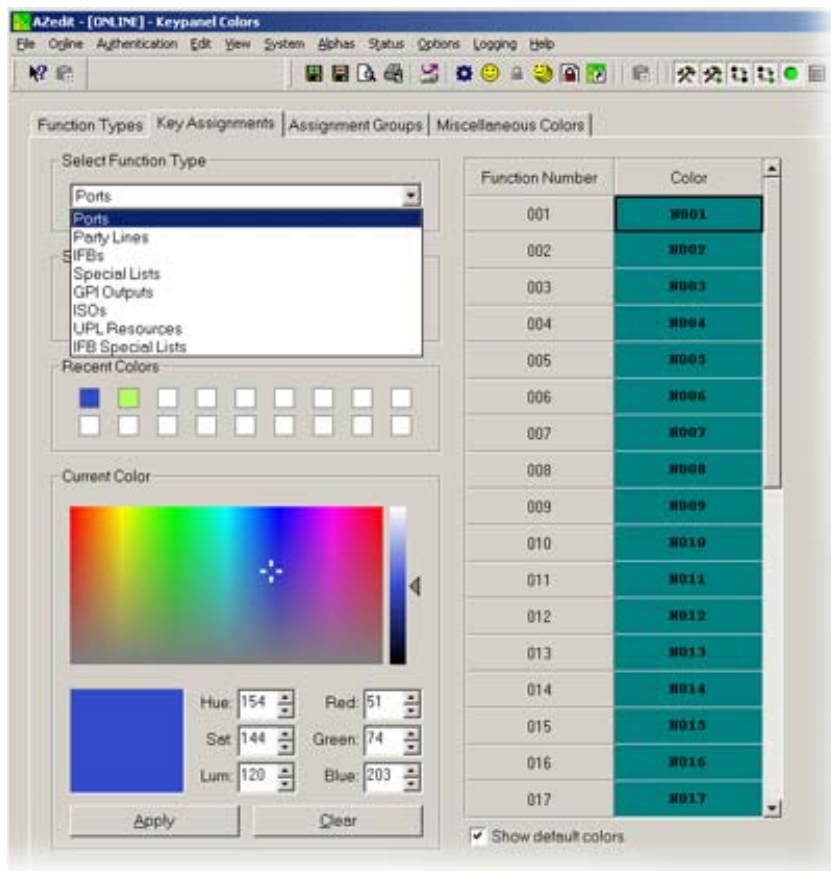


FIGURE 15. Key Assignments Page

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*.

Standard Colors Group Box

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

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

1. From the Select Function Type drop down menu, select the **function type** you want to change.
The function types appear in a column to the right.
2. From the Color column in the right pane, select the **function number 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 type resource.
The color appears in the Current Color group box.
4. Click **Apply**.
The Function Number 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. Use the Hue, Sat, Lum, Red, Green, and/or Blue spin boxes to tweak the selected color to create a unique color for the function type resource.

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.



Function Number	Color
001	N001
002	N002
003	N003
004	N004
005	N005
006	N006
007	N007
008	N008
009	N009
010	N010
011	N011
012	N012
013	N013
014	N014
015	N015
016	N016
017	N017

FIGURE 16. Function Number and Color Columns

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.

Show Default Colors Check Box

The **Show Default Colors** check box indicates the default colors assigned to the function type resources are shown. If not selected, the color column in the right pane displays white boxes.

Assignment Groups Page

The **Assignment Groups** page, shown in Figure 17, is used to change colors of the different assignment groups

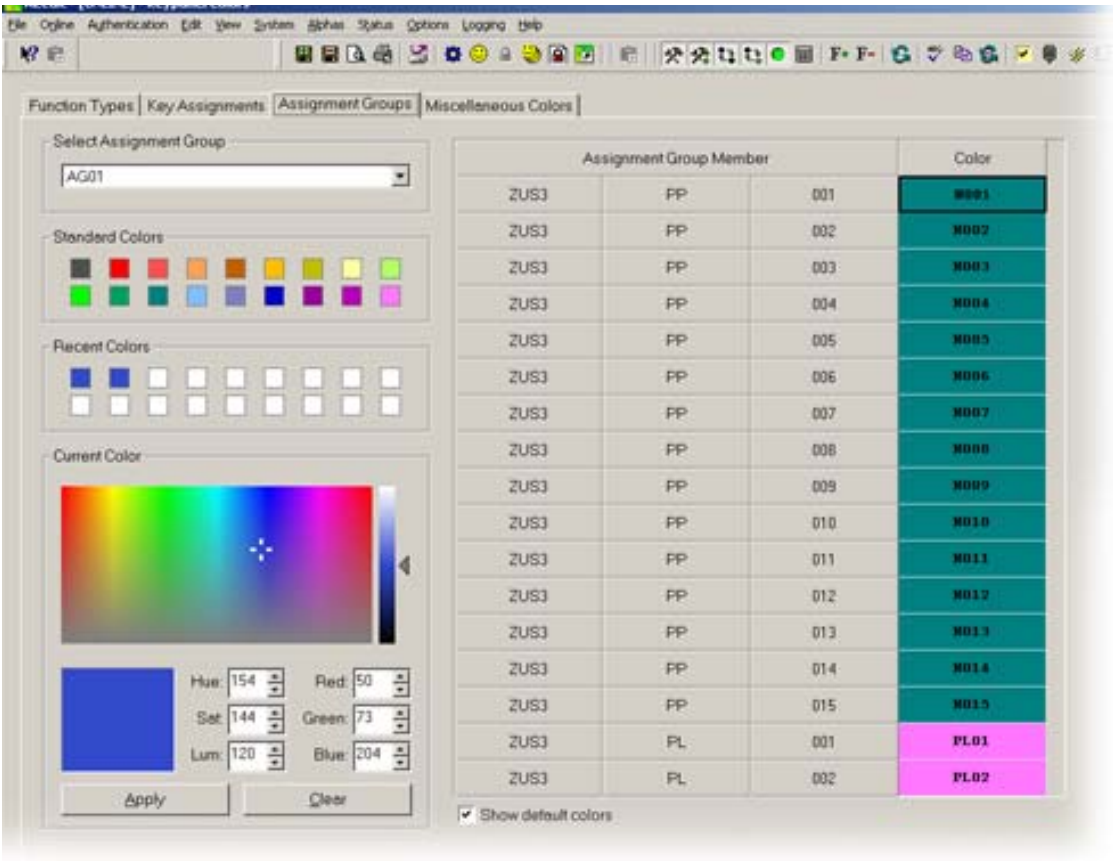


FIGURE 17. Assignments Groups Page

Select Assignment Group Drop Down Menu

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

Standard Colors Group Box

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

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

1. From the Select Intercom drop down menu, select the **assignment group** you want to change the key colors for.
2. From the Color column in the right pane, select the **assignment group color box** you want change the color for.
3. From the Standard Colors group box, select the **standard color** you want to apply to the selected assignment group.
The color appears in the current Color group box.
4. Click **Apply**.
The Assignment Group Color box in the right pane changes to the selected color.

Recent Colors Group Box

The **Recent Colors** group box displays the 18 most recent colors you have used.

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 assignment group.

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 reset to the default color.

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 53.

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 18, 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 on Talk and Listen indicators, “Talk/Listen Indicator” on page 33.

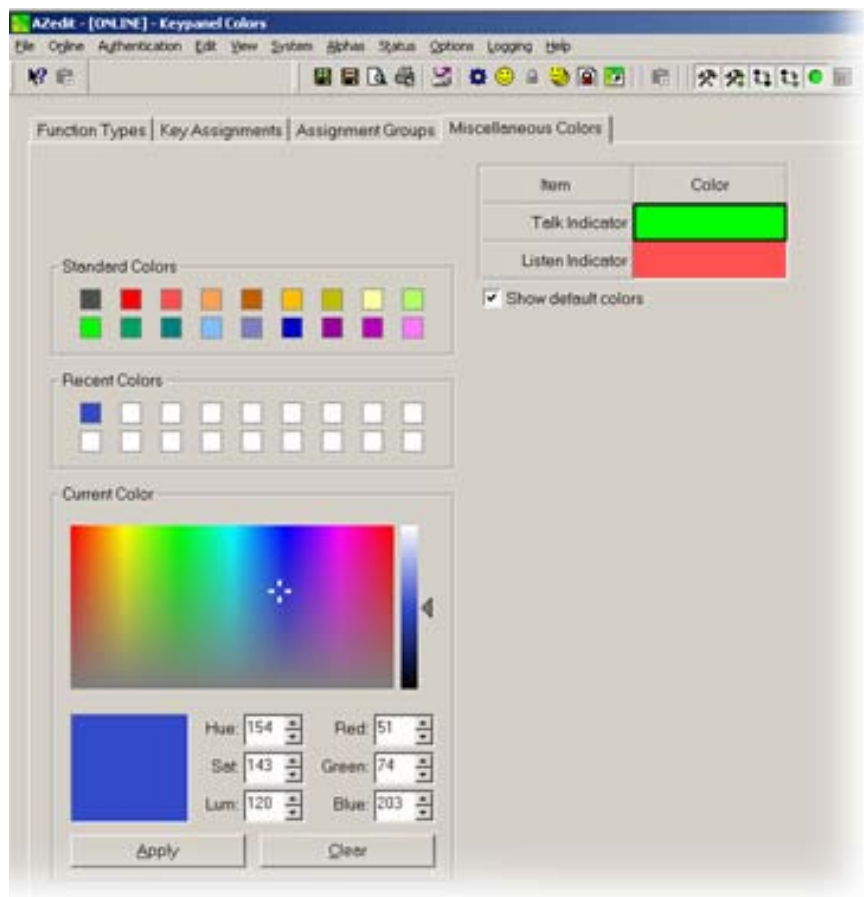


FIGURE 18. Miscellaneous Colors Page

Standard Colors Group Box

The **Standard Colors** group box displays 18 selectable colors you can use for the talk and listen indicator color identification.

To **assign a standard color to a talk or listen indicator**, do the following:

1. From the Color column in the right pane, select the **Talk Indicator Color box**.
OR
From the Color column in the right pane, select the **Listen Indicator Color box**.
2. From the Standard Colors group box, select the **standard color** you want to apply as the indicator color.
The color appears in the Color box.
3. Click **Apply**.
The Item 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. Use the Hue, Sat, Lum, Red, Green, and/or Blue spin boxes to tweak the selected color to create a unique color for the talk/listen indicator.

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 returns to the default color.

Item Column

The **Item** column displays the items you can modify the key color.

Color Column

The **Color** column is used to select the item you want to modify the color for.

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

- > Click the **color box** next to the item.
A thick, black outline appears around the selected color box.

Show Default Colors Check Box

The **Show Default Colors** check box indicates the default color assigned to the talk and listen indicators are shown. If not selected, the color column in the right pane displays white boxes.

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.

Port	Alpha	Comm	Status	Poll Delay	Requests	Power Ups	KP Type	Description
188	N188	-	-	-	-	-	-	
189	N189	-	-	-	-	-	-	
190	N190	-	-	-	-	-	-	
191	N191	-	-	-	-	-	-	
192	N192	-	-	-	-	-	-	
193	N193	-	-	-	-	-	-	
194	N194	-	-	-	-	-	-	
195	N195	-	-	-	-	-	-	
196	N196	-	-	-	-	-	-	
197	N197	-	-	-	-	-	-	
198	N198	-	-	-	-	-	-	
199	N199	-	-	-	-	-	-	
200	N200	-	-	-	-	-	-	
201	N201	-	-	-	-	-	-	
202	N202	-	-	-	-	-	-	
203	N203	-	-	-	-	-	-	
204	N204	-	-	-	-	-	-	
205	N205	-	-	-	-	-	-	
206	N206	-	-	-	-	-	-	
207	N207	-	-	-	-	-	-	
208	N208	-	-	-	-	-	-	
209	N209	OK	KP 0	-	9	1	KP 12 CLD/8	
210	N210	-	-	-	2	-	-	
211	N211	-	-	-	2	-	-	
212	N212	-	-	-	2	-	-	
213	N213	-	-	-	2	-	-	
214	N214	-	-	-	2	-	-	
215	N215	-	-	-	2	-	-	
216	N216	-	-	-	2	-	-	

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.

Download Device Firmware

Download Information

Type of Download: Keypanel

Selected Device(s): 209

File to download: kp12-cld.hex

Begin Download

Download Status

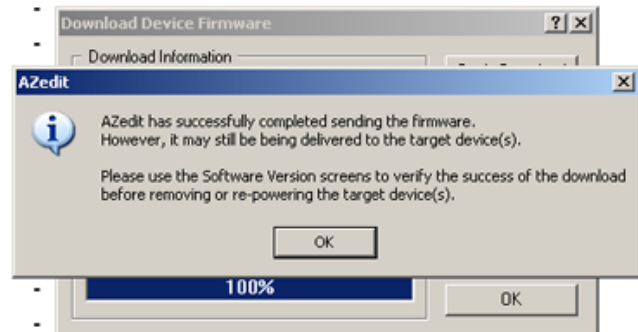
Idle...

Cancel

8. Click **Begin Download**.

The download begins.

194	N194	-	-	-	-	-	-
195	N195	-	-	-	-	-	-
196	N196	-	-	-	-	-	-
197	N197	-	-	-	-	-	-
198	N198	-	-	-	-	-	-
199	N199	-	-	-	-	-	-
200	N200	-	-	-	-	-	-
201	N201	-	-	-	-	-	-
202	N202	-	-	-	-	-	-
203	N203	-	-	-	-	-	-
204	N204	-	-	-	-	-	-
205	N205	-	-	-	-	-	-
206	N206	-	-	-	-	-	-
207	N207	-	-	-	-	-	-
208	N208	-	-	-	-	-	-
209	N209	OK	KP 0	-	9	1	KP 12 CLD/8
210	N210	-	-	-	2	-	-
211	N211	-	-	-	2	-	-

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.*

Port	Alpha	Version
191	N191	n/a
192	N192	n/a
193	N193	n/a
194	N194	n/a
195	N195	n/a
196	N196	n/a
197	N197	n/a
198	N198	n/a
199	N199	n/a
200	N200	n/a
201	N201	n/a
202	N202	n/a
203	N203	n/a
204	N204	n/a
205	N205	n/a
206	N206	n/a
207	N207	n/a
208	N208	n/a
209	N209	DOWNLOAD: CHUNK 7 OF 40, TRY 1, 1%
210	N210	n/a
211	N211	n/a



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

Port	Alpha	Version
193	N193	n/a
194	N194	n/a
195	N195	n/a
196	N196	n/a
197	N197	n/a
198	N198	n/a
199	N199	n/a
200	N200	n/a
201	N201	n/a
202	N202	n/a
203	N203	n/a
204	N204	n/a
205	N205	n/a
206	N206	n/a
207	N207	n/a
208	N208	n/a
209	N209	KP 12 CLD, VERSION 1.0.0, SEP 21 2009, CRC=57CC
210	N210	n/a
211	N211	n/a
212	N212	n/a
213	N213	n/a
214	N214	n/a

Download Firmware Using the BLR Function

The **BLR** (Boot Loader Reset) 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:

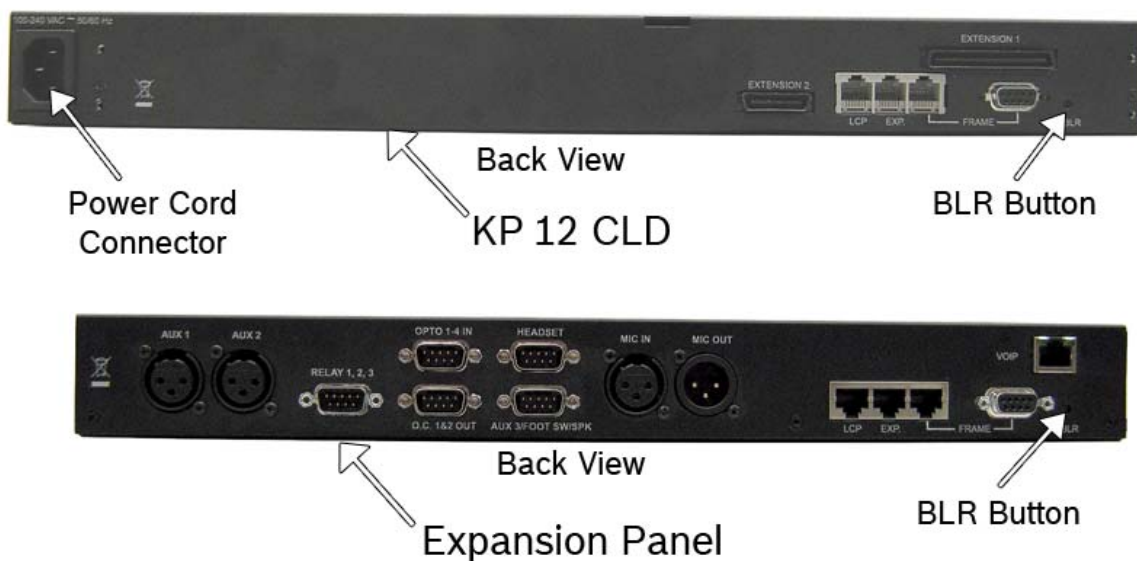
- Option 1.** If your keypanel is not mounted in a rack, run the boot loader from the keypanel, see “Run The Boot Loader” on page 61.
- Option 2.** If your keypanel is mounted in a rack, enable the boot loader on the keypanel and download the firmware using AZedit, see “Enable The Boot Loader On The Keypanel” on page 63.

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.

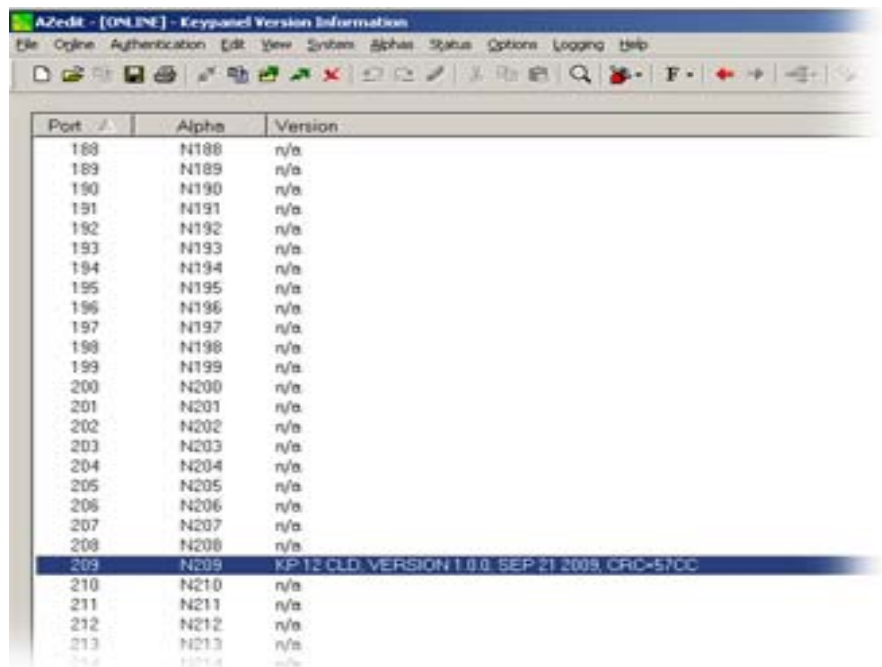


4. While the BLR button is pressed, connect the **power cord** to the keypanel.
KP 12 CLD - Boot Loader Waiting for download... appears in the display.

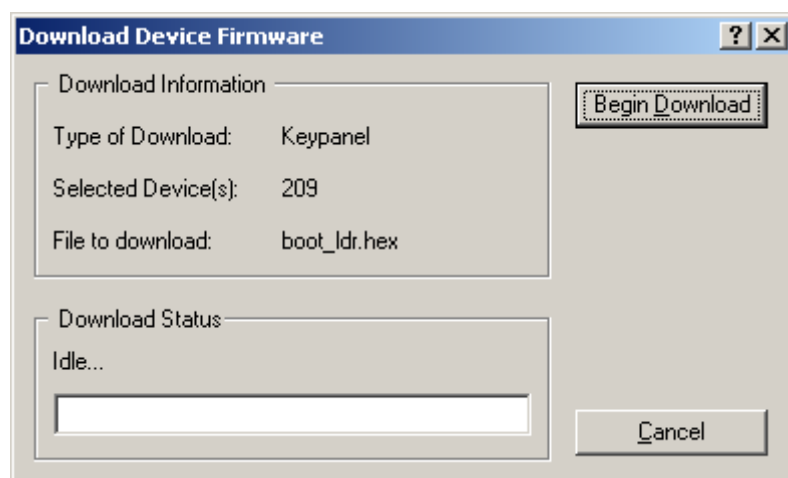


5. In AZedit, from the Status menu, select **Software Versions**.
The Software Versions popup menu appears.

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



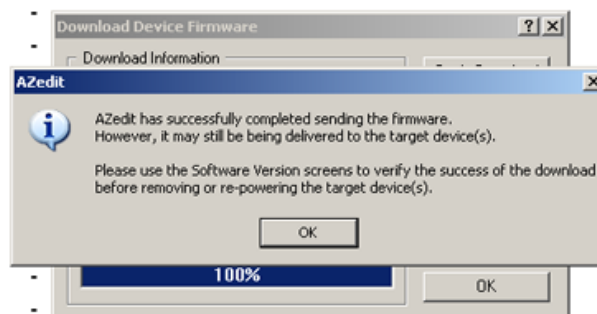
7. From the Keypanel Version Information window, find and select the specified **KP 12 CLD**.
NOTE: Notice the Version column is showing KP 12 CLD Bootloader Version X.X.X is shown.
8. Right-click on the **KP 12 CLD**.
A popup menu appears.
9. From the popup menu, select **Download Firmware....**
The *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.

194	N194	-	-	-	-	-	-
195	N195	-	-	-	-	-	-
196	N196	-	-	-	-	-	-
197	N197	-	-	-	-	-	-
198	N198	-	-	-	-	-	-
199	N199	-	-	-	-	-	-
200	N200	-	-	-	-	-	-
201	N201	-	-	-	-	-	-
202	N202	-	-	-	-	-	-
203	N203	-	-	-	-	-	-
204	N204	-	-	-	-	-	-
205	N205	-	-	-	-	-	-
206	N206	-	-	-	-	-	-
207	N207	-	-	-	-	-	-
208	N208	-	-	-	-	-	-
209	N209	OK	KP 0	-	9	1	KP 12 CLD/8
210	N210	-	-	-	2	-	-
211	N211	-	-	-	2	-	-

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.
- Once the Boot Loader is finished downloading, it reboots itself.

IMPORTANT:

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. If you do not press the BLR button, the message shown below appears.

Enable The Boot Loader On The Keypanel

By enabling the boot loader 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 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service menu options appear.



4. Using the 3(↑) or 6(↓), 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 3(↑) or 6(↓), select **Allow Download**.
7. Press the **SEL** button.
The CLD family keypad allows firmware downloads.

NOTE: If the keypad 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 downloads.

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 are:

Audio Options

Display

Key Assign

Key Options

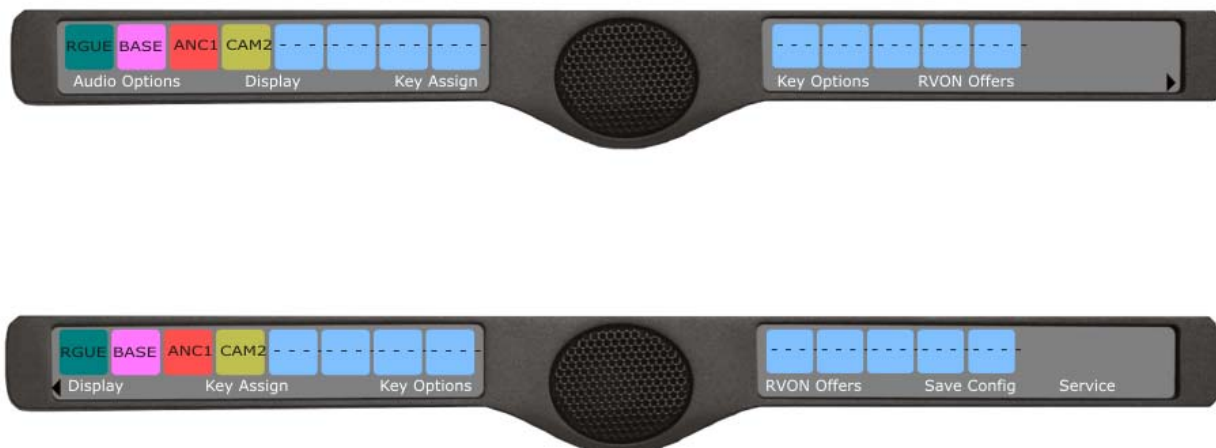
RVON Offers (when an RVON device is present)

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 top level menu structure displays across the middle of the display.



2. Use the 3 (↑) and 6 (↓) on the keypad to **navigate through the menu options**.
3. Press the **SEL** button to select the menu option.
The submenu for the selection appears.

Menu System, Audio Options

Available selections are:

Dim
DSP Funcs
Headset Mic
Headset Spkr
LCP 16 CLD
Key Volumes
Matrix Out
Max Volume
Mic Gain
Min Volume
Output Lvl
Panel Mic
Preamp Out (when the GPIO expansion panel is present)
Sidetone
Speaker
Tone Gen

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

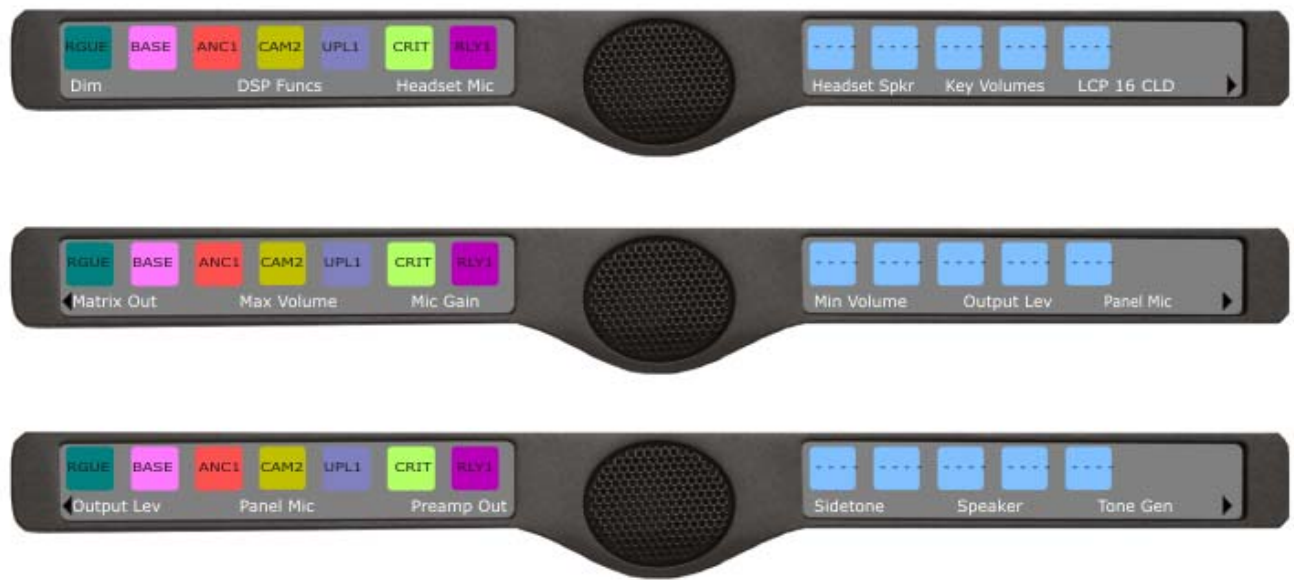


FIGURE 19. Main Audio Options Menu

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.

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

The default for speakers is *-8dB*.

The default for headsets is *0dB*.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Dim**.
5. Press the **SEL** button.
Headset and Speaker appear in the display.
6. Using the 3(↑) or 6(↓), select **Headset** to set the dim level for headsets.
OR
Using the 3(↑) or 6(↓), select **Speaker** to set the dim level for speakers.
7. Press the **SEL** button
Front and Rear appear in the display.
8. Using the 3(↑) or 6(↓), select **Front** to set the dim level for the front speaker/headset.
OR
Using the 3(↑) or 6(↓), select **Rear** to set the dim level for the rear speaker/headset.
9. Press the **SEL** button.
The Dim Amount: scroll box appears.



10. Using the 3(↑) or 6(↓), 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 option 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 Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **DSP Funcs**.

5. Press the **SEL** button.
Equalization, Filters, Gating, Metering, and Mixing appears in the display.



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 five-band equalizer. Each preset provides a different EQ to be applied to the audio sent to the speakers.

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

The default for this field is, *None.*

The presets are as follows:

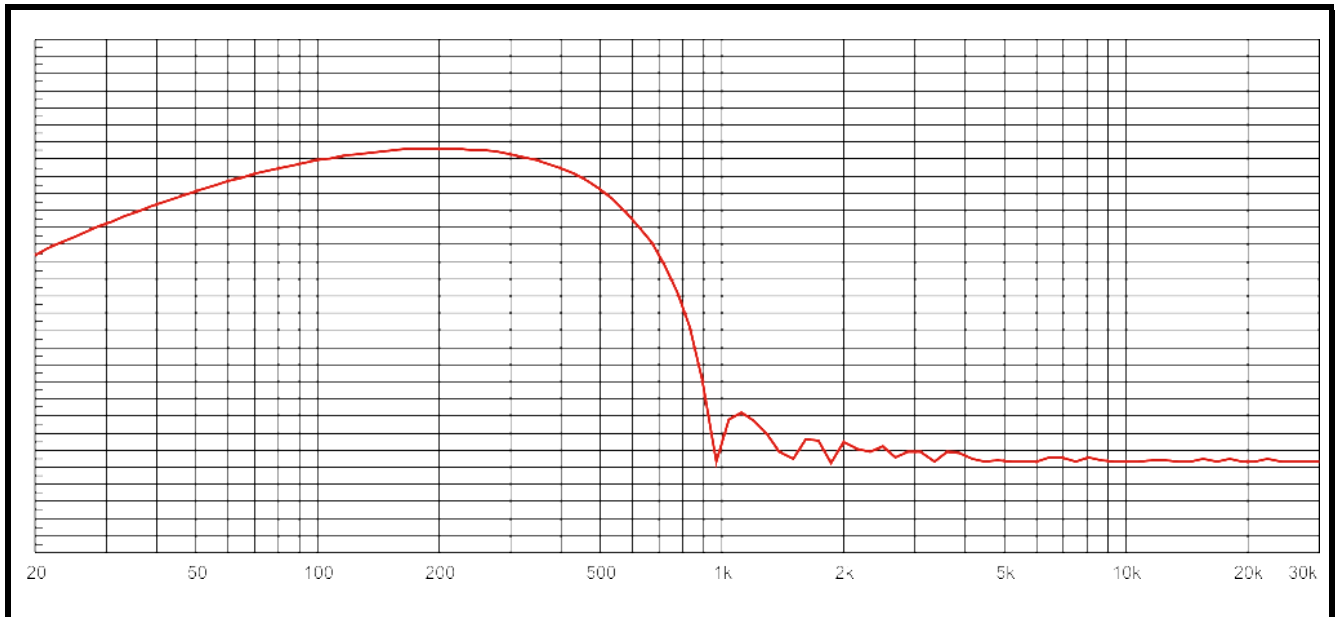


FIGURE 20. Frequency Response - Preset 1 (20Hz to 300Hz)

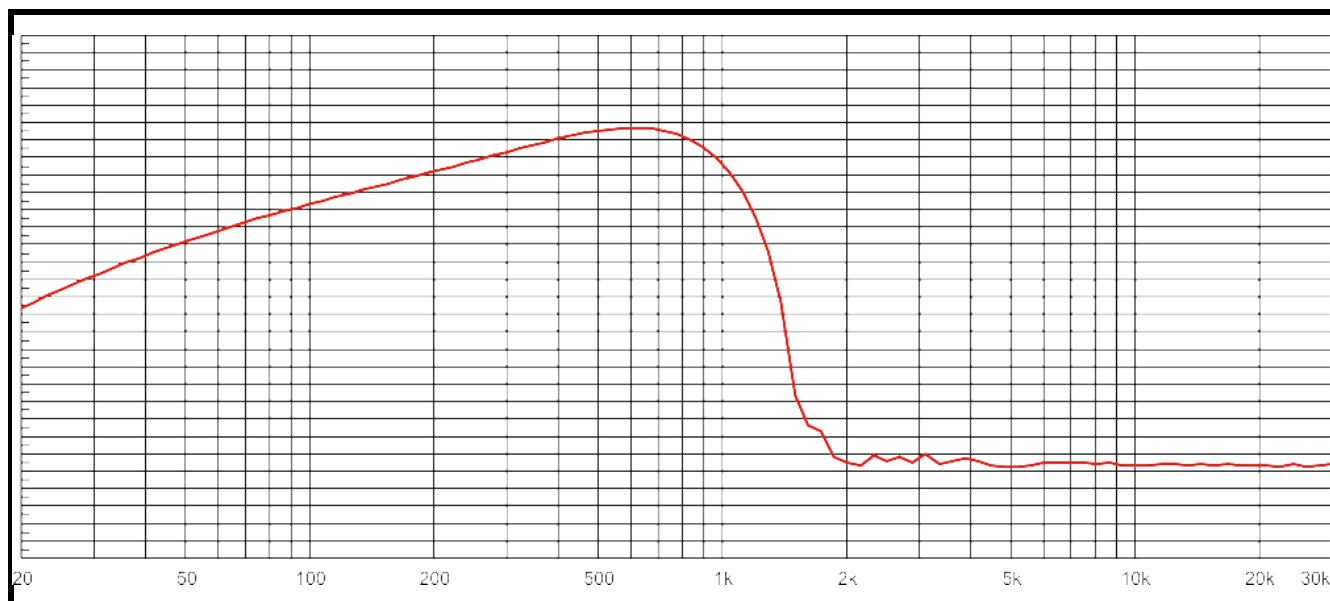


FIGURE 21. Frequency Response - Preset 2 (300Hz to 900Hz)

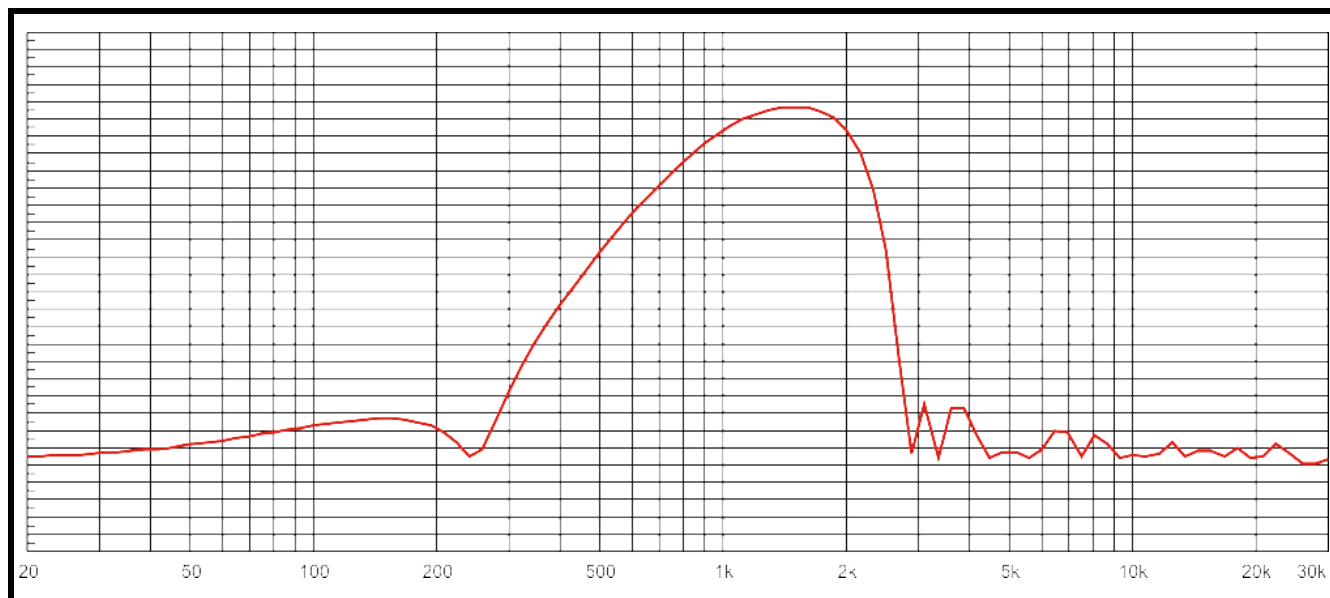


FIGURE 22. Frequency Response - Preset 3 (900Hz to 2100Hz)

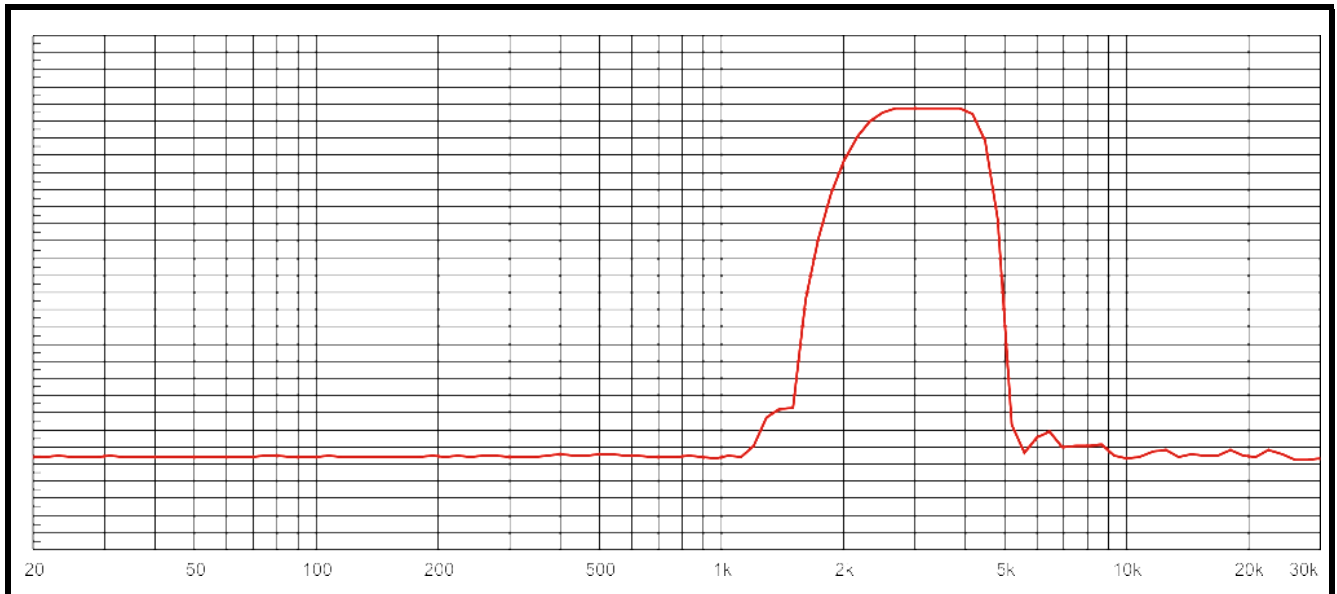


FIGURE 23. Frequency Response - Preset 4 (2100Hz to 4500Hz)

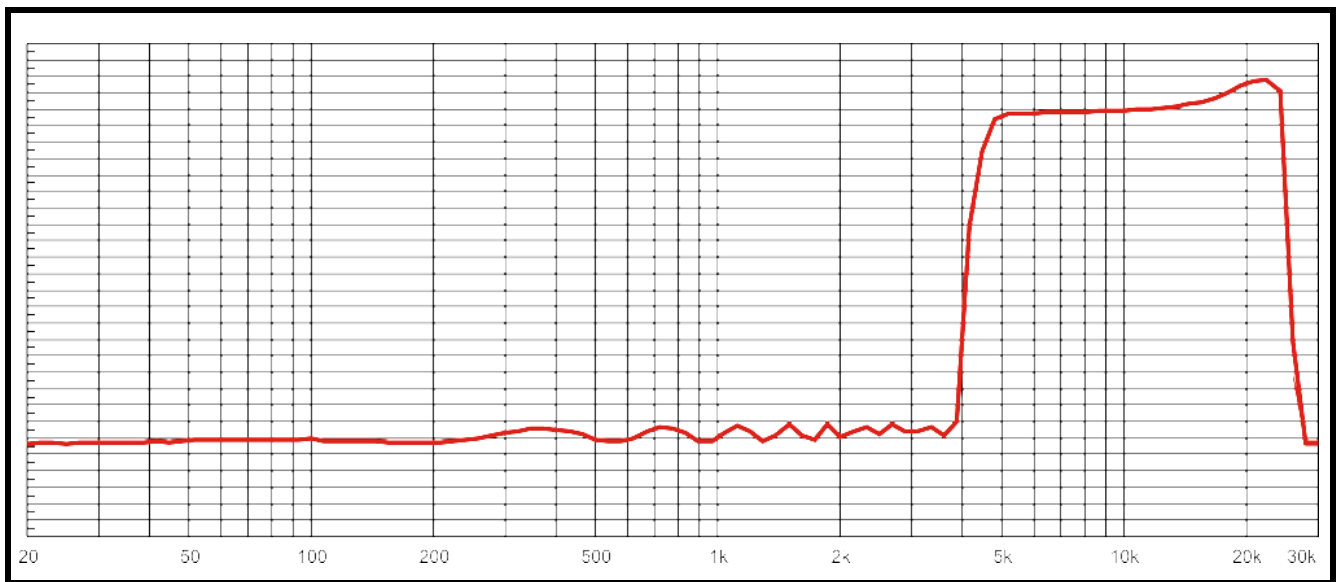


FIGURE 24. Frequency Response - Preset 5 (4500Hz to 24,000Hz)

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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **DSP Funcs**.
5. Press the **SEL** button.
The DSP Funcs menu appears in the display.
6. Using the 3(↑) or 6(↓), select **Equalization**.
7. Press the **SEL** button.
Front Speaker, Rear Left, and Rear Right appear in the display.



8. Using the 3(↑) or 6(↓), select either **Front Speaker**, **Rear Left**, or **Rear Right**.

NOTE: Rear Left and Rear Right only appear when the KP 12 CLD expansion panel is installed.

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



10. Using the 3(↑) or 6(↓), select the **preset** you want to enable.
11. Press the **SEL** button.

A blue arrow  appears next to the selected option

Filters

Filters allow you to add a 9600Hz notch filter to one 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.

Available selections for this menu are:

<i>Aux 1 - 3</i>	This feature is only available when KP 12 CLD expansion panel is installed
<i>Headset Mic</i>	
<i>Matrix In</i>	
<i>Panel Mic</i>	
<i>Rear Headset Mic</i>	This feature is only available when the KP 12 CLD expansion panel is installed
<i>Rear Panel Mic</i>	This feature is only available when the KP 12 CLD expansion panel is installed
<i>RVON Ch1</i>	This feature is only available when the RVON-2 option card is installed
<i>RVON Ch2</i>	This feature is only available when the RVON-2 option card is installed

The default is *None*.

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

- On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
- Using the 3(↑) or 6(↓), select **Audio Options**.
- Press the **SEL** button.
The Audio Options submenu appears.
- Using the 3(↑) or 6(↓), select **DSP Funcs**.
- Press the **SEL** button.
The DSP Funcs menu appears in the display.
- Using the 3(↑) or 6(↓), select **Filters**.
- Press the **SEL** button.
Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, RVON Ch1, and RVON Ch2 appear in the display.



- Using the 3(↑) or 6(↓), select **Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, RVON Ch1, or RVON Ch2**.
- Press the **SEL** button.
None and 9600Hz appears in the display.
- Using the 3(↑) or 6(↓), select either **None** or **9600Hz** baud.



- Press the **SEL** button.
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 selections for this menu are:

<i>Aux 1 - 3</i>	This feature is only available when KP 12 CLD expansion panel is installed
<i>Headset Mic</i>	
<i>Matrix</i>	
<i>Panel Mic</i>	
<i>Rear Headset Mic</i>	This feature is only available when the KP 12 CLD expansion panel is installed
<i>Rear Panel Mic</i>	This feature is only available when the KP 12 CLD expansion panel is installed
<i>RVON Ch1</i>	This feature is only available when the RVON-2 option card is installed
<i>RVON Ch2</i>	This feature is only available when the RVON-2 option card is installed

The range for this field is *-17dB to 18dB* and *Disabled*.
The default is *Disabled*.

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

<i>Aux In 1-3</i>	<i>8dBu</i>
<i>Headset Mic</i>	<i>-50dBu</i>
<i>Matrix In</i>	<i>8dBu</i>
<i>Panel Mic</i>	<i>-42.5dBu</i>
<i>RVON Ch1</i>	<i>8dBu</i>
<i>RVON Ch2</i>	<i>8dBu</i>

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

- On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
- Using the 3(↑) or 6(↓), select **Audio Options**.
- Press the **SEL** button.
The Audio Options submenu appears.
- Using the 3(↑) or 6(↓), select **DSP Funcs**.
- Press the **SEL** button.
The DSP Funcs menu appears in the display.
- Using the 3(↑) or 6(↓), select **Gating**.
- Press the **SEL** button.
Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, RVON Ch1, and RVON Ch2 appear in the display.



- Using the 3(↑) or 6(↓), select **Aux In 1, Aux In 2, Aux In 3, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, RVON Ch1, or RVON Ch2**.

9. Press the **SEL** button.
The *Threshold* scroll box appears in the display.



10. Using the 3(↑) or 6(↓), select the **threshold** you want to set for the option selected.
11. Press the **SEL** button.
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 that incoming audio is split into five (5) bands and displayed on the left side of the keypanel, when enabled.

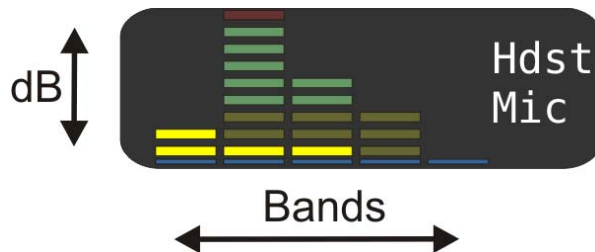


FIGURE 25. Metering Explanation

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

By default, *None* is configured for metering.



FIGURE 26. Metering Bands display

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

Available for this field are:

<i>Aux In 1-3</i>	This feature is only available when KP 12 CLD expansion panel is installed
<i>Front Headset</i>	
<i>Front Mic</i>	
<i>Matrix In</i>	
<i>Rear Headset</i>	This feature is only available when the KP 12 CLD expansion panel is installed
<i>Rear Mic</i>	This feature is only available when the KP 12 CLD expansion panel is installed
<i>RVON Ch1</i>	This feature is only available when the RVON-2 option card is installed
<i>RVON Ch2</i>	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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **DSP Funcs**.
5. Press the **SEL** button.
The DSP Funcs menu appears in the display.
6. Using the 3(↑) or 6(↓), select **Metering**.
7. Press the **SEL** button.
Aux In 1, Aux In 2, Aux In 3, Matrix In, None, Front Hdst, Front Mic, Rear Hdst, Rear Mic, RVON Ch1, or RVON Ch2 appear in the display.



8. Using the 3(↑) or 6(↓), select **Aux In 1, Aux In 2, Aux In 3, Matrix In, None, Front Hdst, Front Mic, Rear Hdst, Rear Mic, RVON Ch1, or RVON Ch2**.
9. Press the **SEL** button.
A blue arrow ► appears next to the selected option.

Mixing

Mixing allows you to route selected audio signals to a user-defined destination.

Available selections for this field are:

<i>To Matrix</i>	<i>Rear Left Headphone</i>
<i>Front Left Headphone</i>	<i>Rear Right Headphone</i>
<i>Front Right Headphone</i>	<i>RVON Ch1 OUT</i>
<i>Front Speaker</i>	<i>RVON Ch2 OUT</i>
<i>Rear Left Speaker</i>	<i>Mic Pre Out</i>
<i>Rear Right Speaker</i>	

By default, the microphone signal is routed to the matrix, and the matrix signal is routed to the speaker and to the left and right headphones.

Audio Sources – Mixing

Available selections are:

<i>Aux 1 – 3</i>	This feature is only available when KP 12 CLD expansion panel is installed
<i>Headset Mic</i>	
<i>Matrix</i>	
<i>Panel Mic</i>	
<i>Rear Headset Mic</i>	This feature is only available when KP 12 CLD expansion panel is installed
<i>Rear Panel Mic</i>	This feature is only available when KP 12 CLD expansion panel is installed
<i>RVON Ch1 IN</i>	This feature is only available when the RVON-2 option card is installed
<i>RVON Ch2 IN</i>	This feature is only available when the RVON-2 option card is installed

DESTINATION \ SOURCE	Front Pane Mic	Matrix Audio In	Front Headset Mic	Rear Headset Mic	Rear Panel Mic ^a	Aux In 1	Aux In 2	Aux In3	RVON Ch1 In	RVON 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	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
RVON Ch1 Out	X	X	X	X	X	X	X	X	X	X
RVON Ch2 Out	X	X	X	X	X	X	X	X	X	X

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

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

- On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
- Using the 3(↑) or 6(↓), select **Audio Options**.
- Press the **SEL** button.
The Audio Options submenu appears.
- Using the 3(↑) or 6(↓), select **DSP Funcs**.
- Press the **SEL** button.
The DSP Funcs menu appears in the display.
- Using the 3(↑) or 6(↓), select **Mixing**.
- Press the **SEL** button.
Front Hdst, Front Spkr, Preamp Out, Rear Hdst, Rear Spkr, RVON Ch1, RVON Ch2 and To Matrix appear in the display.



- Using the 3(↑) or 6(↓), select the **Output** you want to mix.

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



10. Using the 3(↑) or 6(↓), select the **Input** you want to mix.
11. Press the **SEL** button.
12. Press **CLR** to exit menu mode.

Audio Options Menu, Headset Mic

The **Headset Mic** option allows the user to select where audio is coming from. When a KP 12 CLD expansion panel is installed, Front and Rear options are displayed.

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

Available selections for the auto-mute menu are:

Disabled
Enabled

Available selections for this menu are:

Disabled
Enabled
Switched (default) when enabled, whichever mic is selected, the corresponding speaker/headphone is active.

Available selections for the type menu are:

Auto-Detect(default) The keypad defines the type of microphone connected.
Dynamic
Electret

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Headset Mic**.
5. Press the **SEL** button.
Front and Rear appear.



6. Using the 3(↑) or 6(↓), select either **Front** or **Rear**.

7. Press the **SEL** button.
Auto-mute, Mode, and Type appear.
8. Using the 3(↑) or 6(↓), select the **Auto-mute**.
9. Press the **SEL** button.
Disable and Enable appear.
10. Using the 3(↑) or 6(↓), select the **Disable** or **Enable**.
11. Press the **SEL** button.

A blue arrow  appears next to the selected option.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Headset Mic**.
5. Press the **SEL** button.
Front and Rear appear.



6. Using the 3(↑) or 6(↓), select either **Front** or **Rear**.
7. Press the **SEL** button.
Auto-Mute, Mode, and Type appear.
8. Using the 3(↑) or 6(↓), select **Mode**.
9. Press the **SEL** button.
Disabled, Enabled, and Switched appears.



10. Using the 3(↑) or 6(↓), select the **mode**.
11. Press the **SEL** button.
A blue arrow  appears next to the selected option.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Headset Mic**.

5. Press the **SEL** button.
Front and Rear appear.



6. Using the 3(↑) or 6(↓), select either **Front** or **Rear**.
7. Press the **SEL** button.
Auto-Mute, Mode, and Type appear.
8. Using the 3(↑) or 6(↓), select **Type**.
9. Press the **SEL** button.
Auto-detect, Dynamic, and Electret appear.
10. Using the 3(↑) or 6(↓), select the **type**.
11. Press the **SEL** button.

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 KP 12 CLD expansion panel is installed, Front and Rear options are displayed.

Available selections for this menu are:

Disabled

Enabled when enabled, the audio is routed to the headset speaker.

Available selections for this menu are:

Always On (default) no matter what is selected, Always On overrides the manual selection.

Disabled

Switched when enabled, whichever mic is selected, the corresponding speaker/headphone is active.

NOTE: Where the audio is heard is directly related to the state of the Hdset - Panel Mic. See “KP 12 CLD Front Panel” on page 6.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Headset Spkr**.
5. Press the **SEL** button.
Front and Rear appear.



6. Using the 3(↑) or 6(↓), select either **Front** or **Rear**.
7. Press the **SEL** button.
Auto-Transfer and Mode appear.
8. Using the 3(↑) or 6(↓), select **Mode**.
Always On, Disabled, and Switched appear.



9. Using the 3(↑) or 6(↓), select the **mode**.
10. Press the **SEL** button.
A blue arrow appears next to the selected option.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Headset**.
5. Press the **SEL** button.
Front and Rear appear.



6. Using the 3(↑) or 6(↓), select either **Front** or **Rear**.
7. Press the **SEL** button.
Auto-Transfer and Mode appear.
8. Using the 3(↑) or 6(↓), select **Auto-Transfer**.
Disabled and Enabled appear.



9. Using the 3(↑) or 6(↓), select **disabled** or **enabled**.
10. Press the **SEL** button.
A blue arrow appears next to the selected option.

Audio Options Menu, Key Volumes

Key Volumes are used to adjust the crosspoint listen gains. If key volumes are enabled, the user can adjust the listen gains for Matrix crosspoints or point-to-point key assignments from the KP 12 CLD. You can only adjust keys with existing point-to-point listen assignments.

The range for this field is $+6\text{dB}$ to -80dB and *Mute*.
The default for this menu item is 0dB .

NOTE:

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

Key volumes are either enabled for the entire keypad or disabled for the entire keypad. This setting cannot be set on a per key basis.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Key Volumes**.
5. Press the **SEL** button.
Adjust and Reset appear in the display.
6. Using the 3(↑) or 6(↓), select **Adjust**.



7. Press the **SEL** button.
Disabled and Enabled appear in the display.
8. Using the 3(↑) or 6(↓), select **Enabled**.



9. Press the **SEL** button.
Key volume adjustments by users are allowed.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Key Volumes**.

5. Press the **SEL** button.
Adjust and Reset appear in the display.



6. Using the 3(↑) or 6(↓), select **Reset**.
7. Press the **SEL** button.
Cancel and Do Reset appear in the display.
8. Using the 3(↑) or 6(↓), select **Do Reset**.
9. Press the **SEL** button.
Volumes Reset appears in the display.



Audio Options Menu, LCP 16 CLD

The **LCP 16 CLD Level Control Panel** is connected to KP 12 CLD keypad and additional LCP 16 CLD panels. Configuration instructions are included on the back of this document. A maximum of three (3) LCP 16 CLD panels can be connected to one (1) KP 12 CLD keypad

NOTE: The LCP 16 CLD menu option in both the Audio Options and Display menus is always present whether or not an LCP 16 CLD unit is connected to the KP 12 CLD unit.

The LCP 16 CLD can be connected to a KP 12 CLD and used without any additional intervention. Up to three (3) LCP 16 CLD panels can be connected. The panels are assigned in order of their connection. The first LCP 16 CLD is connected to a KP 12 CLD is assigned to keys 1–16. The second LCP 16 CLD is connected to the first LCP 16 CLD and is assigned (by default) to keys 17–32. The third LCP 16 CLD is connected to the second LCP 16 CLD and is assigned (by default) to keys 33–48.

NOTE: The only time the KP 12 CLD needs to be configured for use with an LCP 16 CLD is when the KP 12 CLD's LCP 16 CLD settings have changed. This includes default changes, such as when an LCP 16 CLD is only needed on keys 17–32 or when it is used for aux source level control.

To **change the LCP 16 CLD configuration on the KP 12 CLD**, do the following:

1. Press the **MENU** key.
The top-level menu appears.
2. Using the ↓↓, scroll to **Audio Options**.
3. Press the **SEL** key.
The Audio Options menu appears.
4. Using the ↓↓, scroll to **LCP 16 CLD**.
5. Press the **SEL** key.
Encoder 1 through 16 appears
6. Using the ↓↓, select the **encoder knob number** you want to configure.

7. Press the SEL key.
Inputs, Outputs, Sidetone and Unassigned appears.
8. Using the ↓↓, scroll until **Inputs** appears, to configure the input levels.
OR
Using the ↓↓, scroll until **Outputs** appears, to configure the output levels.
OR
Using the ↓↓, scroll until **Sidetone** appears, to configure the sidetone levels.
OR
Using the ↓↓, scroll until **Unassigned** appears, to clear any configurations on a per key basis.
9. Press the SEL key.
The LCP 16 CLD configuration is changed.

Audio Options Menu, Matrix Out

Matrix Out allows the user to select between the active source. 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 the talk key is latched. In the Hot Mic setting, audio from the mic goes out to the Matrix without regard to the talk key’s state.

Available selections are *Normal* and *Hot Mic*.

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

To **configure the matrix out**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the SEL button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Matrix Out**.
5. Press the SEL button.
Hot Mic and Normal appear on the display.



6. Using the 3(↑) or 6(↓), select **Hot Mic** or **Normal**.
7. Press the SEL button.
A blue arrow appears next to the selected option.

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



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 for this field is *10dB*, but can be adjusted down to address individual user needs.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Max Volume**.
5. Press the **SEL** button.
Headset appears in the display.
6. Using the 3(↑) or 6(↓), select **Headset** to set the maximum volume for headsets.
7. Press the **SEL** button
Front and Rear appear in the display.
8. Using the 3(↑) or 6(↓), select **Front** to set the maximum volume for the front headset.
OR
Using the 3(↑) or 6(↓), select **Rear** to set the maximum volume for the rear headset.
9. Press the **SEL** button.
The Max Volume: scroll box appears.



10. Using the 3(↑) or 6(↓), 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*.

The default for this field is *0dB*.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Mic Gain**.
5. Press the **SEL** button.
Adjust and Level appears in the keypanel display.

6. Using the 3(↑) or 6(↓), select **Level**.



7. Press the **SEL** button.
Front Hdst, Front Mic, Rear Hdst, and Rear Mic appear in the display.



8. Using the 3(↑) or 6(↓), select the **source to configure mic gain**.
9. Press the **SEL** button.
The mic gain scroll box appears in the keypad display.



10. Using the 3(↑) or 6(↓), scroll to the **mic gain level** (in dB) you want.
11. Press the **CLR** button.
The mic gain level is set.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Mic Gain**.
5. Press the **SEL** button.
Adjust and Level appears in the keypad display.
6. Using the 3(↑) or 6(↓), select **Adjust**.



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



8. Using the 3(↑) or 6(↓), select the **resource** you want to configure.
9. Press the **SEL** button.
Disabled and Enabled appear.
10. Using the 3(↑) or 6(↓), select **Disabled** to prohibit mic gain adjustments.
OR
Using the 3(↑) or 6(↓), 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 keypad 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*.

The default for this field is set to *Mute*.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Min Volume**.
5. Press the **SEL** button.
Headset and Speaker appear in the display.
6. Using the 3(↑) or 6(↓), select **Headset** to set the minimum volume for headsets.
OR
Using the 3(↑) or 6(↓), select **Speaker** to set the minimum volume for speakers.
7. Press the **SEL** button
Front and Rear appear in the display.
8. Using the 3(↑) or 6(↓), select **Front** to set the minimum volume for the front speaker/headset.
OR
Using the 3(↑) or 6(↓), select **Rear** to set the minimum volume for the rear speaker/headset.
9. Press the **SEL** button.
The Min Volume: scroll box appears.



10. Using the 3(↑) or 6(↓), scroll to the **minimum volume** you desire.

Audio Options Menu, Output Lev

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

The range for this field is *0dB to +8dB*.

The default for this field is set to *8dB*.

NOTE: If RVON Ch1 is configured as a Matrix connection, RVON Ch2 only appears in the output level selection scroll list. You cannot have RVON Ch1 as a Matrix connection and an output level selection at the same time.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Output Lev**.
5. Press the **SEL** button.
The Output Level scroll box appears in the display.



6. Using the 3(↑) or 6(↓), select the **Output Level** you want to configure.
7. Press the **SEL** button.

Audio Options Menu, Panel Mic

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

Available options for this field are:

Disabled

Enabled

Switched (default) when enabled, whichever mic is selected, the corresponding speaker/headphone is active.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Panel Mic**.
5. Press the **SEL** button.
Front and Rear appear.



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.

6. Using the 3(↑) or 6(↓), select **Front**.
OR
Using the 3(↑) or 6(↓), select **Rear**.

7. Press the **SEL** button.
Disabled, Enabled, and Switched appears.



8. Using the 3(↑) or 6(↓), select the **mode**.
9. Press the **SEL** button.
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 KP 12 CLD expansion panel must be installed for the Preamp Out menu item to appear.

The selections available are:

<i>Disabled</i>	When <i>Disabled</i> is selected, keypanel audio is isolated from the preamp output connector.
<i>Hot Mic</i>	When <i>Hot Mic</i> is selected, audio is always available at the preamp output connector.
<i>Switched (default)</i>	When <i>Switched</i> 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Preamp Out**.
5. Press the **SEL** button.
Disabled, Hot Mic, and Switched appears in the display.



6. Using the 3(↑) or 6(↓), select **Preamp Out option** you want.
7. Press the **SEL** button

Audio Options Menu, Sidetone

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

Level

The range for this field is *-35dB to 0dB*.

The default for this menu is *-20dB*.

Mode

The available options for the sidetone mode are:

Always On

Disabled

Switched (default)

The default for this menu item is Switched.

NOTE: When sidetone is set to Switched, the user's voice is only heard when the talk is activated.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Sidetone**.
5. Press the **SEL** button.
Level and Mode appear in the display.
6. Using the 3(↑) or 6(↓), select **Level**.
7. Press the **SEL** button.
The Sidetone Level adjustment appears in the display.
8. Use the scroll arrows  to adjust the **sidetone level**.



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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Sidetone**.

5. Press the **SEL** button.
Level and Mode appear in the display.
6. Using the 3(↑) or 6(↓), select **Mode**.
7. Press the **SEL** button.
Always On, Disabled, and Switched appear in the display.



8. Using the 3(↑) or 6(↓), select the **mode** to operate sidetone.
9. Press the **SEL** button.
10. Run **Save Config**, to save the modification to non-volatile memory. For more information, see “**Menu System, Save Config**” on page 121.

Audio Options Menu, Speaker

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

Available selections for this menu are:

- Always On* no matter what is selected, Always On overrides the manual selection.
- Disabled*
- Switched (default)* when enabled, whichever mic is selected, the corresponding speaker/headphone is active.

NOTE: Where the audio is heard, is directly related to the state of the Mic Mute/Mic Select switch.
See “Reference View - KP 12 CLD (90007880000)” on page 6.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Speaker**.
5. Press the **SEL** button.
Front and Rear appear.



6. Using the 3(↑) or 6(↓), select either **Front** or **Rear**.

7. Press the **SEL** button.
Always On, Disabled, and Switched appears.



8. Using the 3(↑) or 6(↓), select the **option** you want to configure.
9. Press the **SEL** button.

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 keypad 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:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
 2. Using the 3(↑) or 6(↓), select **Audio Options**.
 3. Press the **SEL** button.
The Audio Options menu appears.
 4. Using the 3(↑) or 6(↓), select **Tone Gen**.
 5. Press the **SEL** button.
Frequency, Tone Off, and Tone On appear in the display.
 6. Using the 3(↑) or 6(↓), select **Tone Off** to disable the tone generator.
OR
Using the 3(↑) or 6(↓), 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Audio Options**.
3. Press the **SEL** button.
The Audio Options menu appears.
4. Using the 3(↑) or 6(↓), select **Tone Gen**.

5. Press the **SEL** button.
Frequency, Tone Off, and Tone On appear in the display.
6. Using the 3(↑) or 6(↓), select **Frequency**.



7. Press the **SEL** button.
1kHz Tone and 500Hz Tone appears in the display.



8. Using the 3(↑) or 6(↓), select **1KHz Tone**.
OR
Using the 3(↑) or 6(↓), select **500Hz Tone**.

A blue arrow ► appears next to the selected option and the 500Hz  or 1KHz  icon displays in the display.

Menu System, Display

Use this menu to display various information about the keypanel configuration.

Available selections for this menu are:

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.

Available options for this menu are:

<i>Pt-to-Pt -</i>	Point-to-Point Talk Key
<i>Party Line -</i>	Party Line Talk Key
<i>IFB -</i>	IFB Talk Key
<i>Special List -</i>	Special List Talk Key
<i>System Relay -</i>	The key activates a GP output at the intercom frame, or a relay output at a UIO-256/GPIO-16 or FR9528 frame.
<i>Camera ISO -</i>	Camera ISO Talk Key
<i>UPL RSRC -</i>	UPL Resource Key
<i>IFB SL -</i>	IFB Special List Key
<i>AC -</i>	All Call Key

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 Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Verify **Assign Type** is selected.
5. Press the **SEL** button.
The assignment types appear on the appropriate key displays.



Display Menu, Chans On

Chans On displays an alpha list of all intercom ports with talk crosspoints currently closed to this keypad. 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 keypad. 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify **Display** is selected.

3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Chans On**.
5. Press the **SEL** button.
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 113.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Chime**.
5. Press the **SEL** button
The Chime display appears showing chime enabled keys with a red indicator bar.



Display Menu, Exclusive

Exclusive displays all keys with the exclusive key assignment. For more information on the exclusive assignment, see “Key Options Menu, Clear” on page 114.

To **display the exclusive keys information**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Exclusive**.
5. Press the **SEL** button
The Exclusive display appears showing exclusive keys with a red indicator bar.



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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Key Groups**.
5. Press the **SEL** button
Group 1, Group 2, Group 3, and Group 4 appear in the display.
6. Using the 3(↑) or 6(↓), select the **Group** you want to display.
7. Press the **SEL** button.
The Master key appears with a red indicator bar, while the slave keys appear with a green indicator bar (see Figure 28).

Display Menu, Key List



FIGURE 28. Display Menu - Key Groups

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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Key List**.
5. Press the **SEL** button.
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 12 CLD**, do the following:

1. Press the **MENU** key.
The top-level menu appears.
2. Using the ↓↓, scroll to **Display**.
3. Press the **SEL** key.
The Display menu appears.
4. Using the ↓↓, scroll to **LCP 16 CLD**.
5. Press the **SEL** key.
The LCP 16 CLD assignments appear under the corresponding keys in the KP 12 CLD display panel.

NOTE: If an LCP 16 CLD is not detected by the KP 12 CLD keypanel, the message LCP 16 CLD Assigns (LCP Not Detected).

Display Menu, Level 2

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

To **display the level 2 talk information**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Level 2**.
5. Press the **SEL** button.
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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Listen**.
5. Press the **SEL** button.
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 TrunkEdit (*Intercoms|Names*).

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Matrix**.
5. Press the **SEL** button.
The Matrix display appears showing the matrix intercom system.



Display Menu, Panel ID

Panel ID displays the port number the keypanel is connected to (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. When the keypanel is scroll enabled, the port number and port alpha are displayed.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify that **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Panel ID**.
5. Press the **SEL** button.
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 116.

To **display the solo key information**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Solo**.
5. Press the **SEL** button.
The Solo display appears showing solo keys with a red indicator bar.

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



Display Menu, Version

Version displays the firmware version currently running on the keypad.

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 keypad**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Verify **Display** is selected.
3. Press the **SEL** button.
The Display submenu appears.
4. Using the 3(↑) or 6(↓), select **Version**.
5. Press the **SEL** button.
The Version display appears showing firmware version for the keypad.



Menu System, Key Assign Menu

The **Key Assign** menu, shown in Figure 29, is used to assign intercom key assignments and auto functions to keypanel keys.

Available selections 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 29. Main Key Assign Menu

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select the **key assignment** you want to assign.
5. Press the **SEL** button.
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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.

2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Matrix**.
5. Press the **SEL** button.
A scrollable list of remote intercoms appears.



6. Using the 3(↑) or 6(↓), select **a remote intercom**.
7. Press the **SEL** button.
A scroll list of available ports appears.
8. Using the 3(↑) or 6(↓), select the **port** you want to assign to the keypanel key.



9. Press the **SEL** button.
A list of auto-functions appear.
10. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the Pt-to-Pt assignment, if applicable.



11. Press the **SEL** button.
Tap Key appears.
12. 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. To assign auto functions, see “Key Assign Menu, Auto Func” on page 110.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Pt-to-Pt**.

5. Press the **SEL** button.
A scroll list of available ports appears.
6. Using the 3(↑) or 6(↓), select the **port** you want to assign to the keypanel key.



7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the Pt-to-Pt assignment, if applicable.



9. Press the **SEL** button.
Tap Key appears.
10. 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 two-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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Party Line**.
5. Press the **SEL** button.
A scroll list of available party lines appears.



6. Using the 3(↑) or 6(↓), select the **party line** you want to assign to the keypanel key.
7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the Party Line assignment, if applicable.

9. Press the **SEL** button.
Tap Key appears.
10. 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **IFB**.
5. Press the **SEL** button.
A scroll list of available IFBs appear.



6. Using the 3(↑) or 6(↓), select the **IFB assignment** you want to assign to the keypanel key.
7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the IFB assignment, if applicable.
9. Press the **SEL** button.
Tap Key appears.
10. 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Special List**.

5. Press the **SEL** button.
A scroll list of available Special List assignments appears.



6. Using the 3(↑) or 6(↓), select the **Special List** you want to assign to the keypad key.
7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the Special List assignment, if applicable.
9. Press the **SEL** button.
Tap Key appears.
10. Press **down** on the keypad key position where you want the Special List assignment to appear.
The key color changes to tan 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 (J903 on 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 keypad key**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Sys Relay**.
5. Press the **SEL** button.
A scroll list of available Relays appears.



6. Using the 3(↑) or 6(↓), select the **relay** you want to assign to the keypad key.
7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the relay assignment, if applicable.
9. Press the **SEL** button.
Tap Key appears.
10. 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Camera ISO**.
5. Press the **SEL** button.
A scroll list of available ISOs appears.



6. Using the 3(↑) or 6(↓), select the **ISO** you want to assign to the keypanel key.
7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the Camera ISO assignment, if applicable.
9. Press the **SEL** button.
Tap Key appears.
10. 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 UPL Resources.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **UPL**.
5. Press the **SEL** button.
A scroll list of available UPLs appears.



6. Using the 3(↑) or 6(↓), select the **UPL** you want to assign to the keypanel key.

7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the UPL assignment, if applicable.
9. Press the **SEL** button.
Tap Key appears.
10. 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 IFB SL to the keypanel key**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **IFSL**.
5. Press the **SEL** button.
A scroll list of available IFSLs appears.



6. Using the 3(↑) or 6(↓), select the **IFSL** you want to assign to the keypanel key.
7. Press the **SEL** button.
A list of auto-functions appear.
8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the IFSL assignment, if applicable.
9. Press the **SEL** button.
Tap Key appears.
10. 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 selections for this menu are:

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



To **assign an auto function**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Auto Funcs**.
5. Press the **SEL** button.
A scroll list of available Auto Funcs appears.
6. Using the 3(↑) or 6(↓), select the **auto function** you want to assign to the keypad key.
7. Press the **SEL** button.
Tap Key appears.
8. 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 keypad operation options, such as auto dial functions, chime keys and duration, exclusive keys, key group assignments, solo key configuration, latching options, and tally operation.

Available selections for this menu are:

Auto Dial
Chime
Clear
Exclusive
Key Groups
Latching
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 keypad. You can access the local auto dial list from any CLD Color Display Keypad or any of the KP 12 Family keypads.

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 144.

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

1-Touch Auto Dials are configured using the locally stored numbers on the keypad. Once a 1-Touch Auto Dial key is configured, pressing the configured key causes the TIF to go offhook and auto dial the selected number.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Auto Dial**.
5. Press the **SEL** button.
Numbers and 1-Touch appear.
6. Using the 3(↑) or 6(↓), select **Numbers**.
7. Press the **SEL** button.
#01: <empty> appears in the display.

NOTE: Use the 3(↑) or 6(↓) to scroll to the **auto dial entry** you want to use.

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

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

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

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Auto Dial**.
5. Press the **SEL** button.
Numbers and 1-Touch appear.
6. Using the 3(↑) or 6(↓), select **Numbers**.
7. Press the **SEL** button.
#01:<empty> appears in the display.
8. Using the 3(↑) or 6(↓), select the **Auto Dial number** you want to remove.
9. Press the **SEL** button.
#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.

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

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Auto Dial**.
5. Press the **SEL** button.
Numbers and 1-Touch appears.
6. Using the 3(↑) or 6(↓), select **1-Touch**.
7. Press the **SEL** button.
Tap Key appears.
8. Tap the **key** you want to put the TIF 1-Touch assignment
A scroll list of auto dial phone numbers appear.

9. Using the 3(↑) or 6(↓), select the **phone number** you want to assign to the key.
10. Press the **CLR** button to exit out of Menu Mode.

NOTE: You must use the TIF menu or assign Drop to a UPG key to hang up after using the 1-Touch key. For more information on UPG keys, see “User Programmable Keys” on page 45.

Key Options Menu, Chime

Chime indicates a chime tone sounds for 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Chime**.
5. Press the **SEL** button.
The Chime submenu appears.
6. Using the 3(↑) or 6(↓), select **Keys**.
7. Press the **SEL** button
Tap Key appears in the display.



8. Tap **down** on each keypanel key to which you want to add Chime.
The selected keys display a red indicator bar.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Chime**.
5. Press the **SEL** button.
The Chime submenu appears.
6. Using the 3(↑) or 6(↓), select **Keys**.
7. Press the **SEL** button
Tap Key appears in the display.
8. 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).
9. Press **CLR** to exit the menu structure.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Chime**.
5. Press the **SEL** button.
The Chime submenu appears.
6. Using the 3(↑) or 6(↓), select **Duration**.
7. Press the **SEL** button
The Min Duration scroll list appears.



8. Using the 3(↑) or 6(↓), scroll to the **amount of time**, between 5 and 30 seconds, you want the chime to last.
9. Press the **SEL** button.
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.

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

1. On the keypad keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.



4. Using the 3(↑) or 6(↓), select **Clear**.
5. Press the **SEL** button.
Tap Key appears in the display.
6. Tap the **key** you want to clear the key options from.
The key options are removed from the keypad key.
7. 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 do not turn back on. You can assign multiple exclusive keys.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Exclusive**.
5. Press the **SEL** button.
Tap Key appears in the display.



6. Tap **down** on any keypad 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Exclusive**.
5. Press the **SEL** button.
Tap Key appears in the display.
6. Tap **down** on each red keypad 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 key (the master key). When the master key is activated, all keys in the group become active.

Up to four (4) key groups can be created

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

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Key Groups**.

5. Press the **SEL** button.
Group 1, Group 2, Group 3 and Group 4 appear in the panel display.



6. Using the 3(↑) or 6(↓), select the **Group** (1-4) you want to create.
7. Press the **SEL** button.
Tap Master Key appears in the display.
8. Tap **down** on the keypad key you want to act as the master key.
The selected key displays a red indicator bar and Tap Slave Key(s) appears in the display.



9. Tap **down** on the keypad 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Key Groups**.
5. Press the **SEL** button.
Group 1, Group 2, Group 3 and Group 4 appear in the panel display.
6. Using the 3(↑) or 6(↓), select the **Group** (1-4) you want to delete.
7. Press the **SEL** button.
Tap the Master Key appears in the display.
8. Tap **down** on the red keypad 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.
9. Tap **down** on the keypad 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 keypad 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.

The default for this menu is enabled.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.

3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Latching**.
5. Press the **SEL** button.
Disabled and Enabled appear in the display.



6. Using the 3(↑) or 6(↓), select **Enabled** or **Disabled**.
A blue arrow ► appears next to the selected option.

Key Options Menu, Solo

Solo allows the user to setup 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Solo**.
5. Press the **SEL** button.
Tap Key appears in the panel display.



6. 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.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Solo**.
5. Press the **SEL** button.
Tap Key appears in the panel display.
6. 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.

Key Options Menu, Tallies

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.



FIGURE 31. Key Options Menu, Tallies

The default for this menu is *15 seconds*.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Tallies**.
5. Press the **SEL** button.
15 Seconds and Indefinite appear in the display.



6. Using the 3(↑) or 6(↓), select **15 Seconds** or **Indefinite**.
7. Press the **SEL** button.
A blue arrow ► appears next to the selected option.

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 32. 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 Channels. Use the Frame connection on the back panel of the keypad.
- 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. The RVON-2 option card uses the VoIP connection.
- 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 keypad.

REFERENCE: For more information about RVON-I/O configuration, see the RVON-I/O user manual 93507772000.

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 keypad.

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 3(↑) or 6(↓), select **RVON Offers**.
3. Press the **SEL** button.
Keypad and Aux Input appear in the display.



4. Using the 3(↑) or 6(↓), select **Keypanel**.
RVON-2 and AIO appear in the display.



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

5. Select the **Matrix connection type** you want to use.
A list of available ports appears.
6. Using the 3(↑) or 6(↓), select the **port** you want to use.
An arrow appears next to the port.
7. Press **CLR** to exit menu mode.

NOTE: You can automatically switch between keypanel frame connections. But, when the connection is switched, it automatically disables and resets to the *None*. 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 3(↑) or 6(↓), select **RVON Offers**.
3. Press the **SEL** button.
Keypanel and Aux Input appear in the display.
4. Using the 3(↑) or 6(↓), select **Aux Input**.



5. Press **SEL**.
RVON Ch1 and RVON Ch2 appears in the display.



6. Using the 3(↑) or 6(↓), select **RVON Ch1** or **RVON Ch2**.
7. Press **SEL**.
A list of available RVON ports appears in the display.
8. Using the 3(↑) or 6(↓), select the **RVON port** you want to configure as an Aux Input.
9. Press **SEL**.
The RVON Aux Input is configured.

Menu System, Save Config

The **Save Config** menu option, shown in Figure 33, 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 keypad is powered down. To erase all custom settings, you can run Reset Config, see “Service Menu, Reset Cfg” on page 133.



FIGURE 33. Main Save Config Menu

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Save Config**.
3. Press the **SEL** button.
Configuration Saved appears in the display.



Menu System, Service

Available selections for this menu are:

Alphas
Aux/Mtx Inputs
Baud Rate
Display Dim
Footswitch
Key View
Keypad
Local GPIO
Reset Cfg
RVON Setup
Scrn Saver
Set Address
Snoop Tally
Test Panel

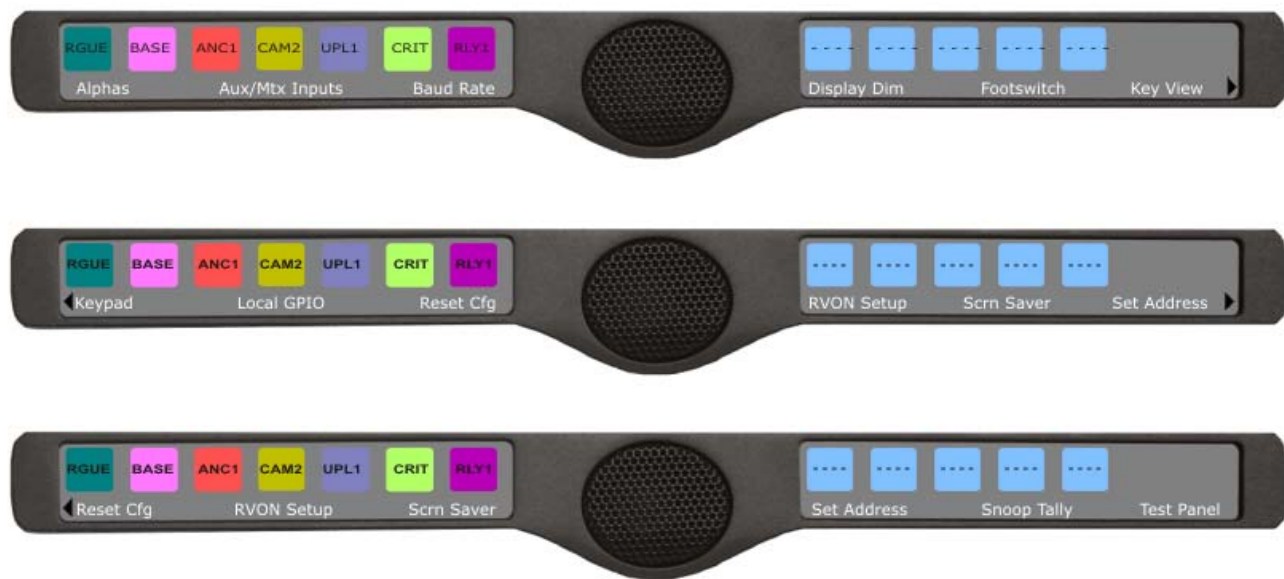


FIGURE 34. Main Service Menu

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 Japanese keypanel is connected to an English matrix, the disconnect/connect icons flash and the keypanel does not connect.



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

Minimum firmware revision requirements for Cyrillic support¹ are:

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

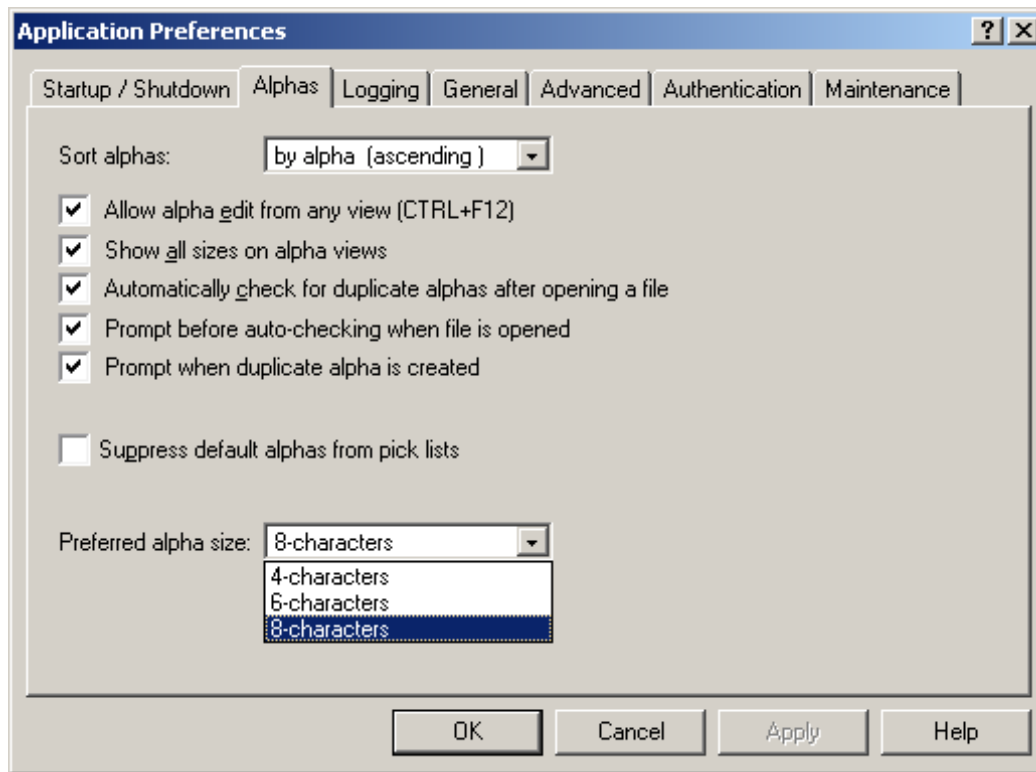
NOTE: Cyrillic, Katakana and Kanji modes can be run on Unicode intercoms only.

Available options are:

- 4 Chars
- 6 Chars
- 8 Chars
- 8 Chars (Unicode)

¹ To use Cyrillic mode, you must configure AZedit to support it. For more information, see “Cyrillic Support” on page 219.

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, which can be found at www.rtsintercoms.com.



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

1. On the KP 32 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display window.
4. Using the 3(↑) or 6(↓), select **Alphas**.
5. Press the **SEL** button.
4 Chars, 6 Chars, 8 Chars, and 8 Chars (Unicode) appear in the display window.



6. Using the 3(↑) or 6(↓), select **Alpha Size**.
7. Press the **SEL** button.
Japanese and Standard appear in the display window.
8. Using the 3(↑) or 6(↓), select the **Language**.

9. Press the **SEL** button.
Cancel and Save and Restart appear in the display window.



10. Using the 3(↑) or 6(↓), select **Save and Restart**.
11. Press the **SEL** button.
The keypad 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 5.

The default for this menu is *enabled*.

NOTE: This feature is only enabled if the KP 12 CLD expansion panel is installed.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Aux/Mtx Inputs**.
5. Press the **SEL** button.
Aux In 1, Aux In 2, Aux In 3, Matrix In, RVON Ch1 and RVON Ch2 appear in the display.
6. Using the 3(↑) or 6(↓), select **one (1) of the inputs**.
7. Press the **SEL** button.
Disabled and Enabled appear in the display.

NOTE: Aux 2 options are Disabled, Enabled, and Ganged.

8. Using the 3(↑) or 6(↓), 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.

3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Baud Rate**.
5. Press the **SEL** button.
Auto Baud, 9600 Baud, and 76.8K Baud appears in the display.



6. Using the 3(↑) or 6(↓), select the **baud rate** you want to use.
A blue arrow ► appears next to the option currently selected.
7. Press the **SEL** button.

Service Menu, Display Dim

Display Dim shows the percentage of brightness the keypad displays.

Available selections for this menu are 35% brightness up to 100% brightness (set in increments of 5).
The default for this field is 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 keypad.
- Expansion* - allows you to set the brightness for the expansion keypad.
- Main Panel* - allows you to set the brightness for only the main keypad. You can set the brightness for the left display, the right display, or both displays.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Display Dim**.
5. Press the **SEL** button.
The Display Dim submenu appears.
6. Using the 3(↑) or 6(↓), select **All Panels**.
Brightness: [X]% (where X represents a number from 35 to 100) appears in the display.
7. Using the scroll arrows , adjust the **brightness** (35% to 100%) you want the keypad display.
8. Press **CLR** to exit the menu system.

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

NOTE: Also use these instructions to set the brightness for any expansion panels.

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.

4. Using the 3(↑) or 6(↓), select **Display Dim**.
5. Press the **SEL** button.
The Display Dim submenu appears.
6. Using the 3(↑) or 6(↓), select **Main Panel**.
7. Press the **SEL** button.
Both, Left and Right appear in the display.
8. Using the 3(↑) or 6(↓), select one of the following:
 - Both**
 - Left**
 - Right***Brightness: [X]% (where X represents a number from 35 to 100) appears in the display.*

NOTE: Both adjusts both the left and right displays on the keypad or the expansion panel.

Left adjusts the left display on the keypad or the expansion panel.

Right adjusts the right display on the keypad or the expansion panel.

9. Using the scroll arrows , adjust the **brightness** (35% to 100%) you want the keypad to display.
10. 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 keypad assignments.

The default for this menu is *disabled*.

	Footswitch Active	The footswitch is active.
	Footswitch Enabled	The footswitch is enabled, but not active. When a keypad key is pressed while the Footswitch is enabled, the key display turns amber  to signify that it is waiting for footswitch.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Footswitch**.
5. Press the **SEL** button.
Disabled and Enabled appear in the display.
6. Using the 3(↑) or 6(↓), select **Enabled**.

7. Press the **SEL** button.

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



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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Footswitch**.
5. Press the **SEL** button.
Disabled and Enabled appear in the display.
6. Using the 3(↑) or 6(↓), select **Disabled**.
7. Press the **SEL** button.

A blue arrow  appears next to *Disabled*.

Service Menu, Key View

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

The default for this menu is *Suppress AF*.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Key View**.
5. Press the **SEL** button.
Talk Only, Talk/Listen, and Suppress AF appear on the display.
6. Using the 3(↑) or 6(↓), select one (1) of the following:

Talk Only

Talk/Listen

Suppress AF

7. Press the **SEL** button.

A blue arrow  appears next to selected option.

NOTE: When Talk/Listen is selected, the keypad 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 keypad and to set the backlight options.



FIGURE 35. Service Menu, Keypad

Keypad Sequence

Keypad Sequence selections are *Classic* and *Default*. For more detailed information on both keypads, see “KP 12 CLD Keypad Quick Reference” on page 149.

Available selections for this menu are: *Classic* and *Default*.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Keypad**.
5. Press the **SEL** button.
Backlight and Sequences appear on the display.
6. Using the 3(↑) or 6(↓), select **Sequences**.
7. Press the **SEL** button.
Classic and Default (default) appear on the display.



8. Using the 3(↑) or 6(↓), select **Default** for the default keypad sequence.
OR
Using the 3(↑) or 6(↓), select **Classic** for the classic keypad sequence.
A blue arrow ► appears next to the selection.

Backlight

Available selections for this field are:

Activate - (default) When Activate is selected, the backlight activates if the user presses any keypad key on the keypad.

NOTE: This action is not part of the key sequence, but simply a way to activate the backlight on the keypad.

Always Off - When selected, the keypad backlight is always off.

Always On - When selected, the keypad backlight is always on.

NOTE: When the keypad menu is not active, the backlight stays lit for five (5) seconds of inactivity before shutting off. However, when the keypad menu is active, the backlight stays lit for one (1) minute before exiting the menu system and shutting off. Using Activate as your setting can prolong the lifetime of the backlight for the keypad.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Keypad**.
5. Press the **SEL** button.
Backlight and Sequences appear in the display.
6. Using the 3(↑) or 6(↓), select **Backlight**
7. Press the **SEL** button.
Activate (default), Always Off, and Always On appear in the display.



8. Using the 3(↑) or 6(↓), select **Always On** to have the keypad backlight always on.
OR
Using the 3(↑) or 6(↓), select **Always Off** to have the keypad backlight always off.
OR
Using the 3(↑) or 6(↓), 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 KP 12 CLD expansion panel is installed.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.

3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Local GPIO**.
5. Press the **SEL** button.
GPIO Inputs and GPIO Outputs appear in the display.
6. Using the 3(↑) or 6(↓), select **GPIO Inputs**.



7. Press the **SEL** button.
Opto 1, Opto 2, Opto 3, and Opto 4 appear in the display.
8. Using the 3(↑) or 6(↓), select one (1) of the following:
 - Opto 1**
 - Opto 2**
 - Opto 3**
 - Opto 4**
9. Press the **SEL** button.
Key Group, Not Assigned, and Talk Key appear in the display.



10. Using the 3(↑) or 6(↓), select **Talk Key**.
Tap Key appears in the display.
11. Tap the **talk key** you want to assign the GPIO Input.
The selected keypad key turns red.

To **setup GPIO inputs to a key group**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Local GPIO**.
5. Press the **SEL** button.
GPIO Inputs and GPIO Outputs appear in the display.
6. Using the 3(↑) or 6(↓), select **GPIO Inputs**.
7. Press the **SEL** button.
Opto 1, Opto 2, Opto 3, and Opto 4 appear in the display.

8. Using the 3(↑) or 6(↓), select one (1) of the following:
 - Opto 1**
 - Opto 2**
 - Opto 3**
 - Opto 4**
9. Press the **SEL** button.
Key Group, Not Assigned, and Talk Key appear in the display.
10. Using the 3(↑) or 6(↓), select **Key Group**.
11. Press the **SEL** button.
A list of Key Groups appear in the display.



12. Using the 3(↑) or 6(↓), select the **group** you want to assign the GPIO Input to.
A blue arrow ► appears next to the selected option.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Local GPIO**.
5. Press the **SEL** button.
GPIO Inputs and GPIO Outputs appear in the display.
6. Using the 3(↑) or 6(↓), select **GPIO Outputs**.
7. Press the **SEL** button.
OC Out 1, OC Out 2, Relay 1, Relay 2, and Relay 3 appear in the display.



8. Using the 3(↑) or 6(↓), select one(1) of the following:
 - Relay 1**
 - Relay 2**
 - Relay 3**
 - OC Out 1**
 - OC Out 2**
9. Press the **SEL** button.
Not Assigned, Talk Key, UPG appear in the display.
10. Using the 3(↑) or 6(↓), select **Talk Key**.
11. Press **SEL**.
Tap Key appears in the display.
12. Tap the **key** you want to assign the GPIO Output assignment.
The selected keypad key turns red.

Service Menu, Reset Cfg

Reset Cfg restores all custom settings to the defaults and erases all stored autodial numbers.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Reset Cfg**.
5. Press the **SEL** button.
Cancel and Do Reset appear in the display.
6. Using the 3(↑) or 6(↓), select **Do Reset**.



7. Press the **SEL** button.
Configuration Reset appears in the display.



Service Menu, RVON Setup

Use the **RVON Setup** menu option to configure the RVON-2 and/or RVON-I/O IP Address for the CLD keypad.

NOTE: The following instructions show how to configure the RVON-2 IP Address; however, you can use these same instructions to configure the RVON-I/O IP Address as well.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **RVON Setup**.
5. Press the **SEL** button.
RVON-2 and RVON-IO appear in the display.



6. Using the 3(↑) or 6(↓), select **RVON-2**.
IP Address, Gateway, and Netmask appear in the display.
7. Using the 3(↑) or 6(↓), select **IP Address**.



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



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

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

1. Using the 3(↑) or 6(↓), select **Gateway**.



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

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

1. Using the 3(↑) or 6(↓), select **Netmask**.



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

Service Menu, Scr Saver

Scr Saver allows the user to configure how the screen saver feature operates.



FIGURE 36. Service Menu, Screen Saver

Available selections for this menu are:

- | | |
|-------------------|---|
| <i>Activate</i> - | allows the user to activate the screen saver with no delay. |
| <i>Delay</i> - | can be set to activate the screen saver after 30 minutes or up to 12 hours. |
| <i>Mode</i> - | can be set to scroll text or shut the display off (sleep mode). |

The default setting for this menu is:

- | | |
|----------------|--------------|
| <i>Delay</i> - | One (1) hour |
| <i>Mode</i> - | Text |

NOTE: Any action done to the keypad, directly or indirectly, takes the keypad out of screen saver mode.

To **manually activate the screen saver**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Scrn Saver**.
5. Press the **SEL** button.
Activate, Delay, and Mode appear on the display.
6. Using the 3(↑) or 6(↓), select **Activate**.



7. Press the **SEL** button.
The screen saver is activated on the keypad display.

To **set the delay option for the keypad screen saver**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Scrn Saver**.
5. Press the **SEL** button.
Activate, Delay, and Mode appear on the display.
6. Using the 3(↑) or 6(↓), select **Delay**.
7. Press the **SEL** button.
Delay Time: 1Hour ◆ appears



8. Using the 3(↑) or 6(↓), 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. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Scrn Saver**.
5. Press the **SEL** button.
Activate, Delay, and Mode appear in the display.
6. Using the 3(↑) or 6(↓), select **Mode**.

7. Press the **SEL** button.
Display Off and Text appear in the display



8. Using the 3(↑) or 6(↓), select **Display Off** to put the display into sleep mode when the screen saver activates.
OR
Using the 3(↑) or 6(↓), 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 23 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 keypad 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 port 2, the poll ID for the keypad is 2.

Available selections for this menu are 1–8.

To **set the address for the KP 12 CLD**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Set Address**.
5. Press the **SEL** button.
Poll ID: 1 ◆.



6. Using the 3(↑) or 6(↓), scroll to the **poll ID** for the keypad.
7. Press the **SEL** button.
Cancel or Save and Restart appear in the display.
8. Using the 3(↑) or 6(↓), scroll to **Save and Restart**.



9. Press the **SEL** button.
Restarting.... appears. The keypad resets. Once the restart is complete, the Poll ID is enabled.



Service Menu, Snoop Tally

Snoop Tally, when enabled indicates to keypad users that somebody is listening to them. For example, snoop tallies are displayed on keypad 1, if there is another keypad (2) which is listening to keypad 1 via a point-to-point or a special list, but is not talking to keypad 1. Snoop tallies are suppressed if keypad 1 has any talk keys turned on, or if the hot mic is not enabled. Snoop tallies are supported on KP-32 family keypads.

NOTE: Hot Mic must be activated on the keypad for snoop tally to work. To enable Hot Mic, see “Audio Options Menu, Output Lev” on page 88.

The default for this field is *disabled* (no chime).

To **enable snoop tallies on the keypad**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Snoop Tally**.
5. Press the **SEL** button.
Chime and No Chime (default) appear in the display.



6. Using the 3(↑) or 6(↓), select **Chime**.
7. Press the **SEL** button.
A blue arrow appears next to Chime. Snoop Tally is enabled.

To **disable snoop tallies on the keypad**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Snoop Tally**.

5. Press the **SEL** button.
Chime and No Chime (default) appear in the display.



6. Using the 3(↑) or 6(↓), select **No Chime**.
7. Press the **SEL** button.
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 on the KP 12 CLD.



FIGURE 37. Service Menu - Test Panel

TABLE 7. Test Panel Key Descriptions

	All alpha numeric displays show a % symbol on a blue button when in Test Panel mode.
	Pressing down on any key causes OK to display and a red bar appears along the bottom indicating the talk key works.
	Pressing up on any key causes OK to display and a green bar appears along the bottom indicating the listen key works.
	Pressing to the right on any key (excluding the MIC MUTE/MIC SEL. and CLR/CWW) causes arrows pointing to the right appear on the key display.
	Pressing to the left on any key (excluding the MIC MUTE/MIC SEL. and CLR/CWW) causes arrows pointing to the left appear on the key display.
<-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.

TABLE 7. Test Panel Key Descriptions

<-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 Top Level menu appears.
2. Using the Using the 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service submenu appears in the display.
4. Using the 3(↑) or 6(↓), select **Test Panel**.
5. Press the **SEL** button.
The Test Panel display appears (see Figure 37).
6. Using Table 7 on page 139, test the **KP 12 CLD keys**.
7. Press **Clear** to exit the menu mode.

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.

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 **key** to answer the call.

NOTE: The TIF key assignment flashes incoming TIF calls as the default operation. Alternatively, a no flash TIF key assignment indication can be provided. This is accomplished by selecting the *Don't generate tallies for TIF or trunk use* check box in AZedit (*Options|Intercom Configuration|Options* tab). This check box also affects other tally indications.

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 3(↑) or 6(↓), 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 3(↑) or 6(↓), 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 Drop appear in the display.
2. Using the 3(↑) or 6(↓), 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 Drop appear in the display.
2. Using the 3(↑) or 6(↓), 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 3(↑) or 6(↓), 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 3(↑) or 6(↓), select **Auto Dial**.



4. Press **SEL**.
The Auto Dial numbers appear in the display.



5. Using the 3(↑) or 6(↓), 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

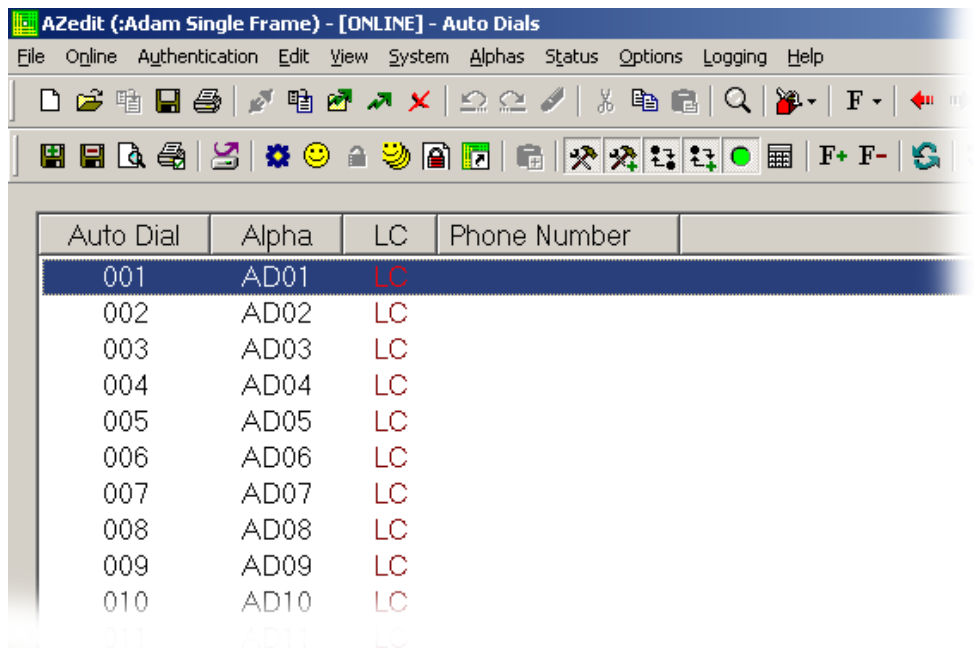
Centralized Auto Dial from the KP 12 CLD

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 keypad. For more information, see “Key Options Menu, Auto Dial” on page 111.

NOTE: The KP-32 standard keypad supports centralized auto dial numbers on firmware version 2.1.1 or later.

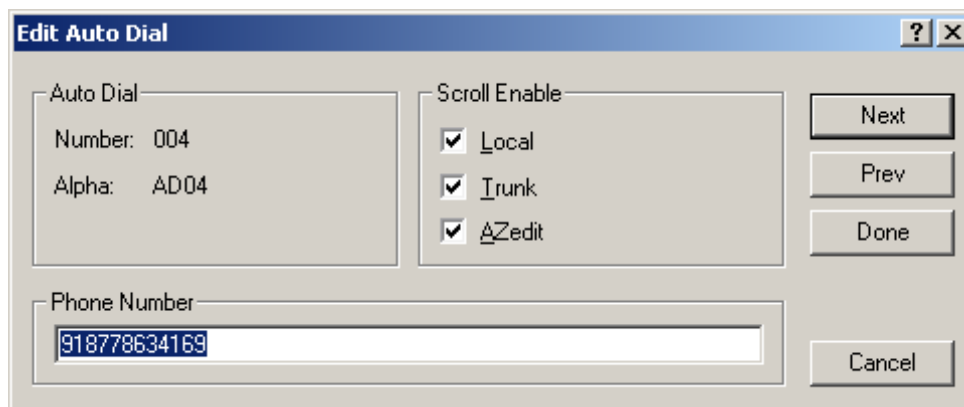
To **access the Auto Dials window**, do the following:

- > 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.

- 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.

- 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:

- From the Alphas menu in AZedit, select **Auto Dial**.
The Auto Dial Alphas window appears.
- Double-click the **AD resource number** you want to add the description to.
The Edit Alpha/Description window appears.

- In the Description field, enter a **unique description** for the auto dial number. For example, Studio 1A NYC.
- In the Alpha 4, Alpha 6, or Alpha 8 field, enter a **recognizable 4-, 6- or 8-character Alpha**. For example, 1ANY.
- Click **Done** when you are finished.
 OR
 Click **Next** to enter another Alpha Description..

Auto Dial	Alpha	LC	Phone Number
001	AD01	LC	3930
002	AD02	LC	7363900
003	AD03	LC	7363930
004	AD04	LC	918778634169
005	AD05	LC	
006	AD06	LC	
007	AD07	LC	
008	AD08	LC	
009	AD09	LC	
010	AD10	LC	
011	AD11	LC	
012	AD12	LC	
013	AD13	LC	

- From the Online menu in AZedit, select **Send Changes**.
The Send Changes window appears.
- 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 ↑ and ↓, 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 ↑ and ↓, 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 ↑ and ↓, scroll to **Dial**.
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.

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 keypad ID, talk level 2 assignments, etc.). Keypanel sequences are shortcuts via the KP 12 CLD keypad.

Available selections for this field are:

<i>Classic</i>	Sequence 2, is the previous standard for KP 12 and KP 96 keypanels.
<i>Default</i>	Sequence 1, is the new standard for the KP 12 CLD. This sequence is based upon an alternate key sequence for the KP 12 keypad.

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 service menu or the entire menu. This is implemented through AZedit (System|Miscellaneous|Keypanel Menu Password). For more information on how to lock the menu, see the AZedit user manual (P/N 93507769000).

Below 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

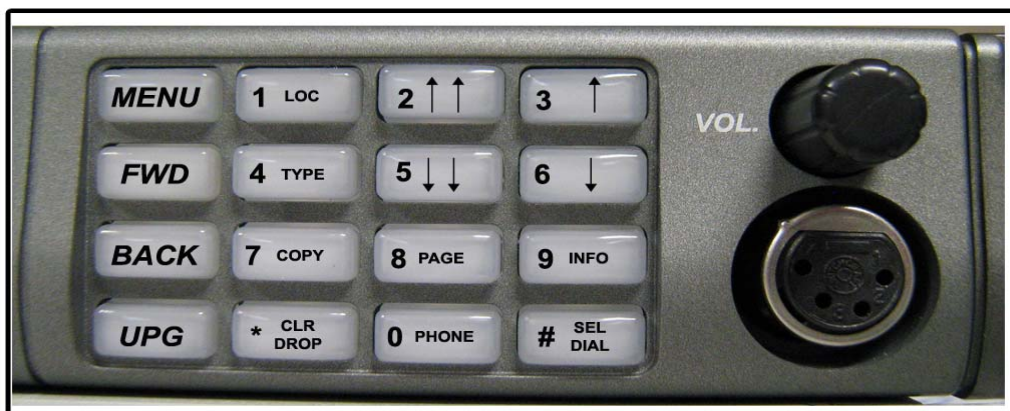
Classic Keypad Sequence

<i>Keypad</i>	<i>Description</i>
The following sequences also require that the assignments are 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
The following sequences also require that the assignments are 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

Default Keypad Sequence

<i>Button/Keypad Sequence</i>	<i>Description</i>
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: 0dB

Rear

Dim Volume: 0dB

Speaker

Front

Dim Volume: -8dB

Rear

Dim Volume: -8dB

DSP Functions

Equalization

Front Spkr <preset list>

- Rear Left • none
- Rear Right • preset #1
- preset #2
- preset #3
- preset #4
- preset #5

Filters

Audio Options

Aux In 1	Filter List
Aux In 2	• none
Aux In 3	• 9600Hz
Front Hdst	
Front Mic	
Matrix In	
Rear Hdst	
Rear Mic	
RVON Ch1	
RVON Ch2	

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

Audio Options

RVON Ch1	
RVON Ch2	
Mixing	
Front Hdst	Source List (Not all sources are available to be mixed to all destinations)
Both	
Left	
Right	
Front Spkr	• Front Mic
Preamp Out	
Rear Hdst	• Rear Mic
Both	
Left	
Right	
Rear Spkr	• Front Hdst • Rear Hdst • Matrix • Aux In 1 • Aux In 2 • Aux In 3 • RVON Ch1 • RVON Ch2
Both	
Left	
Right	
RVON Ch 1	
RVON Ch 2	
To Matrix	

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

Audio Options

Headset Spkr	
Front	
Auto-Transfer	Disabled Enabled*
Mode	Always On* Disabled Switched
Rear	
Auto-Transfer	Disabled Enabled*
Mode	Always On* Disabled Switched
Key Volumes	
Adjust	Enabled* Disabled
Reset	Cancel Do Reset Volumes Reset
LCP 16 CLD	
Encoder 1 - 16	
Inputs	Source List (Not all sources are available to be mixed to all destinations) Aux 1 Aux 2 Aux 3 Matrix In RVON Ch1 RVON Ch2
Outputs	Source List (Not all sources are available to be mixed to all destinations) Both Hdsts Both Spkrs Front Hdst Front Spkr Rear Hdst Rear Spkr
Sidetone	Unassigned

Audio Options

Matrix Out

Normal
Hot Mic

Max Volume

Headset
Front Max Volume: +10dB
Rear Max Volume: +10dB

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

Audio Options

Switched*

Sidetone

Level
Sidetone Level: -20dB
Mode
Always On
Disabled
Switched*

Speaker

Front
Always On
Disabled
Switched*

Rear
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**

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

Party Line**Key Assign**

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

Camera ISO

Key Assign

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

Key Options

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

Tap Master Key

Tap Slave Keys

Group 2

Tap Master Key

Tap Slave Keys

Group 3

Tap Master Key

Tap Slave Keys

Group 4

Tap Master Key

Tap Slave Keys

Latching

Disabled

Enabled*

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

Do Reset

Standard

Cancel

Do Reset

6 Chars

Japanese

Cancel

Do Reset

Standard

Cancel

Do Reset

8 Chars

Japanese

Cancel

Do Reset

Standard

Cancel

Do Reset

Cancel

Do Reset

8-Chars (UNICODE)

Japanese

Cancel

Do Reset

Standard

Cancel

Do Reset

Aux/Mtx Inputs

Aux In 1

Disabled

Enabled

Aux In 2

Disabled

Enabled

Ganged

Aux In 3

Disabled

Enabled

Matrix In

Service

Disabled

Enabled

RVON Ch 1

Disabled

Enabled

RVON Ch2

Disabled

Enabled

Baud Rate

Auto Baud

9600K Baud

76.8K Baud

Display Dim

All Panels

Brightness 40%

Expansion

Both

Brightness 40%

Left

Right

Main Panel

Both

Brightness 40%

Left

Right

Footswitch

Disabled*

Enabled

Key View

Suppress AF*

Talk/Lisn

Talk Only

Keypad

Backlight

Activate*

Always Off

Always On

Sequences

Classic

Default*

Local GPIO

GPIO Inputs

Opto 1

Key Group

- Group 1
- Group 2
- Group 3
- Group 4

Service	
	Not Assigned*
	Talk Key
	Tap Key
Opto 2	
	Key Group
	• Group 1 • Group 2 • Group 3 • Group 4
	Not Assigned*
	Talk Key
	Tap Key
Opto 3	
	Key Group
	• Group 1 • Group 2 • Group 3 • Group 4
	Not Assigned*
	Talk Key
	Tap Key
Opto 4	
	Key Group
	• Group 1 • Group 2 • Group 3 • Group 4
	Not Assigned*
	Talk Key
	Tap Key
GPIO Outputs	
OC Out 1	
	Not Assigned
	Talk Key
	Tap Key
	UPG
OC Out 2	
	Not Assigned
	Talk Key
	Tap Key
	UPG

Service	
	Relay 1
	Not Assigned
	Talk Key
	Tap Key
	UPG
	Relay 2
	Not Assigned
	Talk Key
	Tap Key
	UPG
	Relay 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
Scrn Saver	
	Activate
	Delay
	Delay Time: 1 Hour*
	Mode
	Display Off
	Text*
Set Address	
	Poll ID: 1*
Snoop Tally	

Service	
	Chime
	No Chime*
Test Panel	
	Test Panel

KP 12 CLD System Menu - no Option Card or Expansion Unit

Audio Options		
DIM		
Headset		
	Dim Volume: 0dB	
Speaker		
	Dim Volume: -8dB	
DSP Functions		
Equalization		
	none	
	preset #1	
	preset #2	
	preset #3	
	preset #4	
	preset #5	
Filters		
	Hdst Mic	Filter List - none - Panel Mic
	Matrix In	
	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

Audio Options	
Type	Switched*
	Auto-Detect
	Dynamic
	Electret
Headset Spkr	
Auto-Transfer	
	Disabled
	Enabled
Mode	
	Always On*
	Disabled
	Switched
Key Volumes	
Adjust	
	Disabled
	Enabled*
Reset	
	Cancel
	Do Reset
	Volumes Reset
LCP 16 CLD	
Encoder 1 - 16	
Inputs	Source List (Not all sources are available to be mixed to all destinations)
	Aux 1
	Aux 2
	Aux 3
	Matrix In
	RVON Ch1
	RVON Ch2
Outputs	Source List (Not all sources are available to be mixed to all destinations)
	Both Hdsts
	Both Spkrs
	Front Hdst
	Front Spkr
	Rear Hdst
	Rear Spkr
Sidetone	
Unassigned	
Matrix Out	
Normal*	
Hot Mic	

Audio Options

Max Volume

Headset

Max Volume: +10dB

Mic Gain

Adjust

Disabled

Hdset Mic

Panel Mic

Level

Hdset Mic

Mic Gain: 0dB

Panel Mic

Mic Gain: 0dB

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

Display

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

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

Key Assign**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

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

Key Assign**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

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

Key Assign

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

Tap Master Key

Tap Slave Keys

Group 2

Tap Master Key

Tap Slave Keys

Group 3

Tap Master Key

Tap Slave Keys

Group 4

Tap Master Key

Tap Slave Keys

Latching

Disabled

Enabled

Solo

Tap Key

Tallies

Key Options

15 seconds*

Indefinite

RVON Offers

Keypanel

RVON-1

AIO

Aux Inputs

RVON Ch1

RVON Ch2

Save Configuration

Configuration Saved

Service

Alphas

4 Chars

Japanese

Cancel

Do Reset

Standard

Cancel

Do Reset

6 Chars

Japanese

Cancel

Do Reset

Standard

Cancel

Do Reset

8 Chars

Japanese

Cancel

Do Reset

Standard

Cancel

Do Reset

Cancel

Service		
Do Reset		
8-Chars (UNICODE)		
Japanese		
Cancel		
Do Reset		
Standard		
Cancel		
Do Reset		
Aux/Mtx Inputs		
Matrix In		
Disabled		
Enabled		
Baud Rate		
Auto Baud		
76.8K Baud		
9600K Baud		
Display Dim		
All Panels		
Brightness 40%		
Expansion		
Both		Brightness 40%
Left		
Right		
Main Panel		
Both		Brightness 40%
Left		
Right		
Key View		
Suppress AF*		
Talk/Lisn		
Talk Only		
Keypad		
Backlight		
Activate*		
Always Off		
Always On		
Sequences		
Default*		
Classic		
Reset Cfg		
Cancel		
Do Reset		
Configuration Reset		
RVON Setup		
RVON-2		
IP Address		

Service	
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	
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	

Boot Loader Reset

Boot Loader Reset - BLR Button

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

- Run the boot loader from the keypanel, see “Run The Boot Loader” on page 169.
- Enable the boot loader on the keypanel and download the firmware using AZedit, see “Enable The Boot Loader On The Keypanel” on page 172 (v 1.1.0 and later).

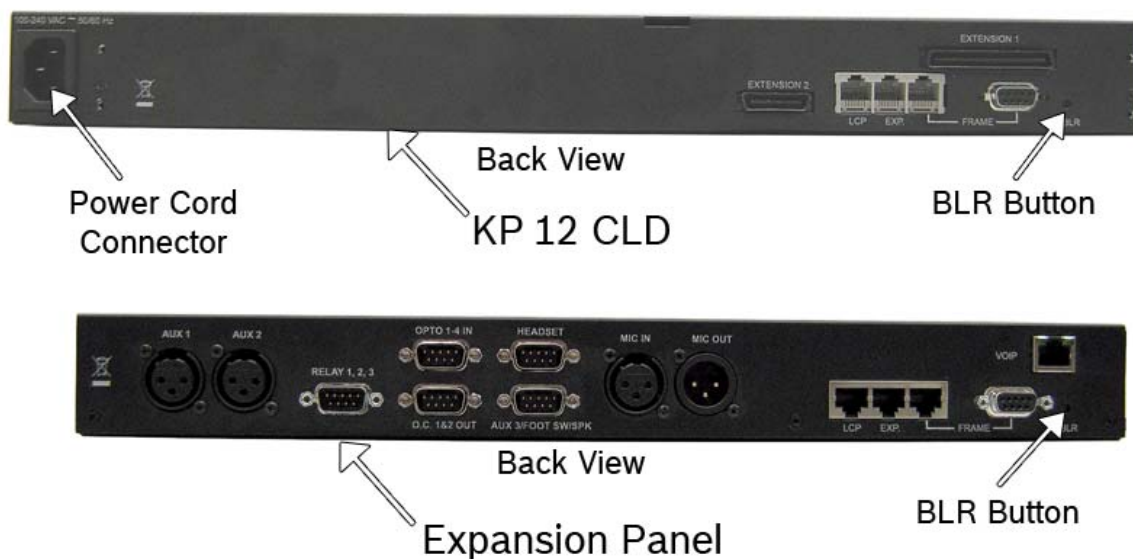
NOTE: The instructions provided below are shown using the KP 12 CLD, but are applicable for all CLD family keypanels.

Run The Boot Loader

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

1. Power **off** the KP 12 CLD 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 keypanel.
OR
Using a screwdriver, press the **BLR Button** located on the back of the expansion panel.



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 fly-out menu appears.
6. From the Software Versions flyout menu, select **Keypanels**.
The Keypanel Version Information window appears.

The screenshot shows the 'AZedit - [ONLINE] - Keypanel Version Information' window. It has a menu bar with 'File', 'Online', 'Authentication', 'Edit', 'View', 'System', 'Alpha', 'Status', 'Options', 'Logging', and 'Help'. Below the menu bar is a toolbar with various icons. The main area contains a table with the following data:

Port	Alpha	Version
001	N001	Unknown
002	N002	KP-32, VERSION 2.0.7 (APR 04 2005), U2=GABE, U3=F54T
003	TECH	KP 12 CLD BOOT LOADER, VERSION 1.0.0, SEP 10 2004, CRC=A083
004	N004	n/a
005	N005	n/a
006	N006	n/a
007	N007	n/a
008	N008	n/a
009	N009	n/a
010	N010	n/a
011	N011	n/a
012	N012	n/a
013	N013	n/a
014	N014	n/a
015	N015	n/a
016	N016	n/a
017	N017	n/a
018	N018	KP632-24, VERSION 2.0.2 (MAY 13 2005), U2=1916, U3=C334
019	N019	n/a
020	N020	n/a
021	N021	n/a
022	N022	n/a
023	N023	n/a
024	N024	n/a
025	N025	n/a
026	N026	n/a
027	N027	n/a

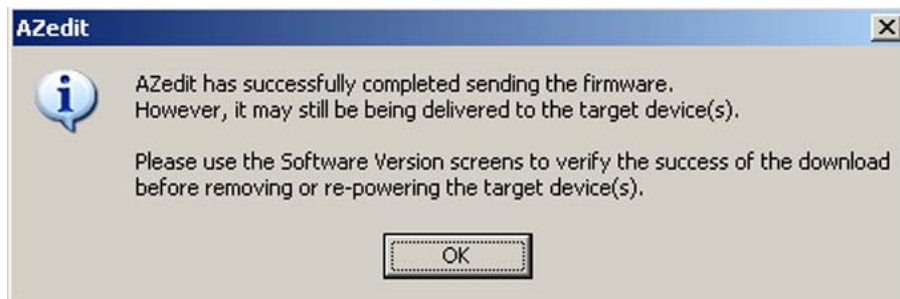
7. From the Keypanel Version Information window, find and highlight the specified **KP 12 CLD**.

NOTE: Notice the Version column shows the KP 12 CLD Boot Loader version X.X.X.X.

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 your **boot loader file** (i.e., boot_ldr.hex).
11. Click **Open**.
The Download Device Firmware window appears.



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



13. Click **OK**.
In AZedit, the KP 12 CLD boot loader finishes. This can take up to 10 minutes to complete. Use the Keypanel Version Information window to follow the progress of the download (then number and percentage of chunks completed). Also, the Boot Loader Download progression is displayed on the KP 12 CLD display until the download is complete.

IMPORTANT: 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. If you do not press the BLR button, the message shown below appears.

Port	Alpha	Version
001	N001	KP-32, VERSION 2.0.7 (APR 04 2006), U2=0ABE, U3=F4C1
002	N002	KP-32, VERSION 2.0.7 (APR 04 2006), U2=0ABE, U3=F541
003	TECH	DOWNLOAD: CHUNK 2 OF 5, TRY 1, 1%
004	N004	n/a
005	N005	n/a
006	N006	n/a
007	N007	n/a
008	N008	n/a
009	N009	n/a
010	N010	n/a
011	N011	n/a
012	N012	n/a
013	N013	n/a
014	N014	n/a
015	N015	n/a
016	N016	n/a



Enable The Boot Loader On The Keypanel

By enabling the boot loader 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 3(↑) or 6(↓), select **Service**.
3. Press the **SEL** button.
The Service menu options appear.
4. Using the 3(↑) or 6(↓), 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 3(↑) or 6(↓), 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 downloads.

RVON-2 for KP 12 CLD

General Description of the RVON-2 Voice Over Network Card

Installed directly into KP 12 CLD expansion panel, 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 hardwire connection. The RVON-2 delivers an integrated solution for connecting CLD keypanels to the Intercom matrix over standard 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 (<i>RVON Offers</i>)

Specifications

DIGITAL

TABLE 8. 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 9. 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 10. 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.

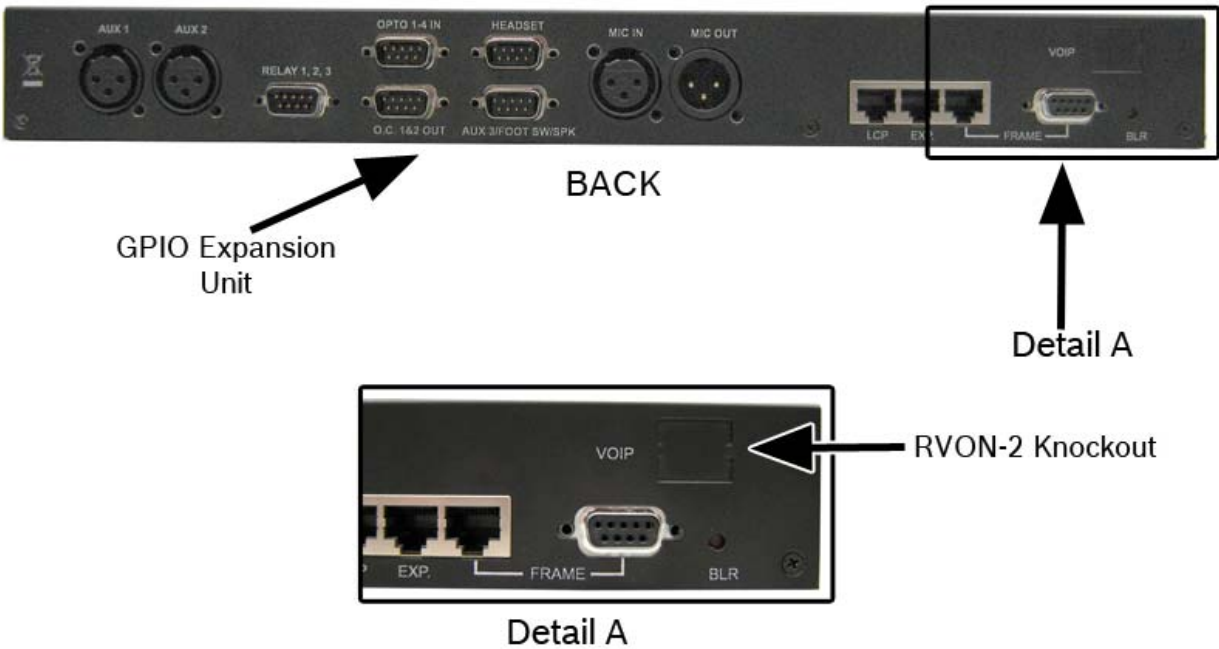


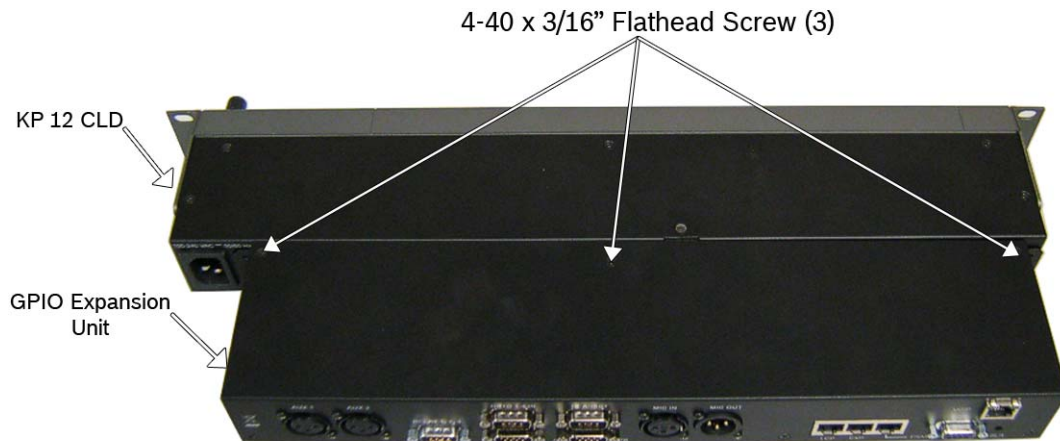
FIGURE 38. GPIO Expansion Unit — RVON-2 Knockout

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.

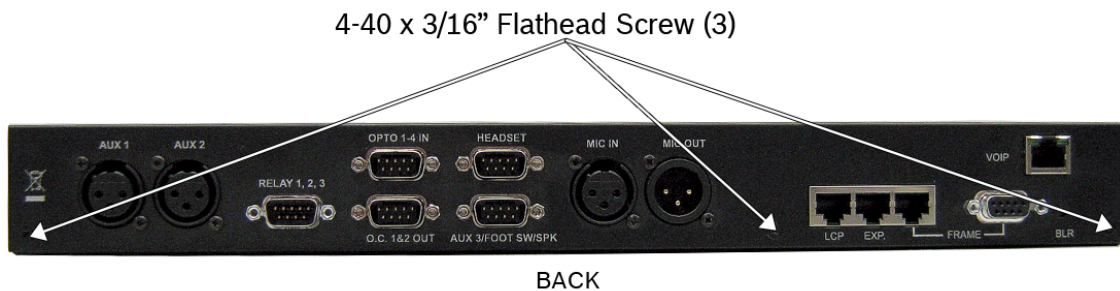
To **install the RVON-2 Option card in the KP 12 CLD expansion unit**, do the following:

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.

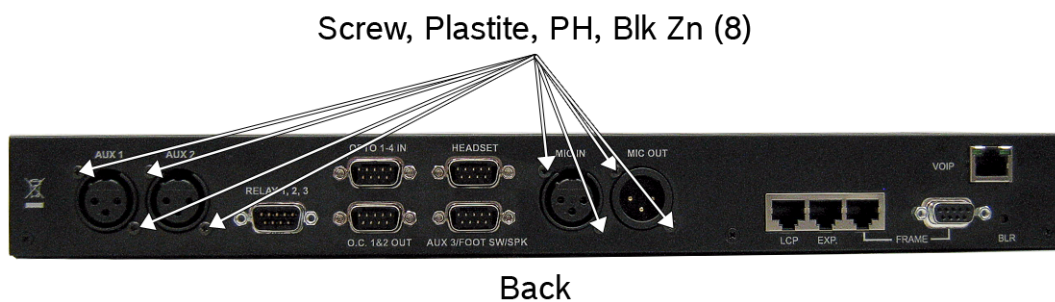
1. Using a screwdriver, remove the **three (3) screws** on the top of the expansion unit.



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

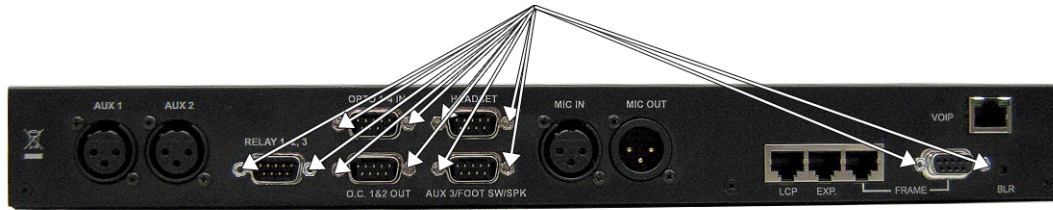


3. Remove the **XLR connector screws (8)**.



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

Screw-Lock, 40-4 x 1/4" (12)

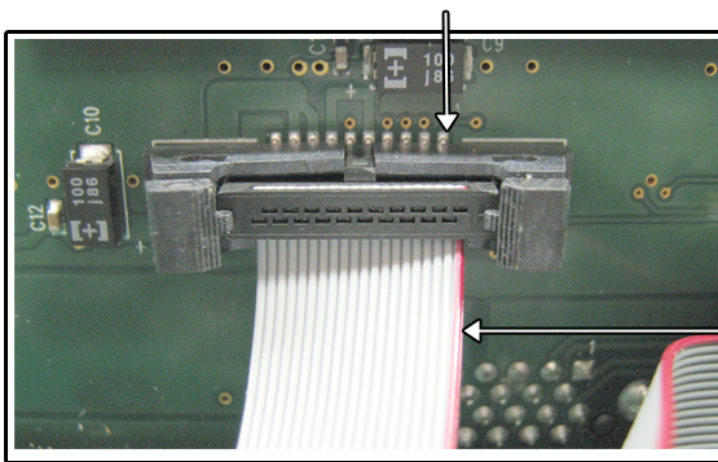


Back

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.

Pin 1 (J5)

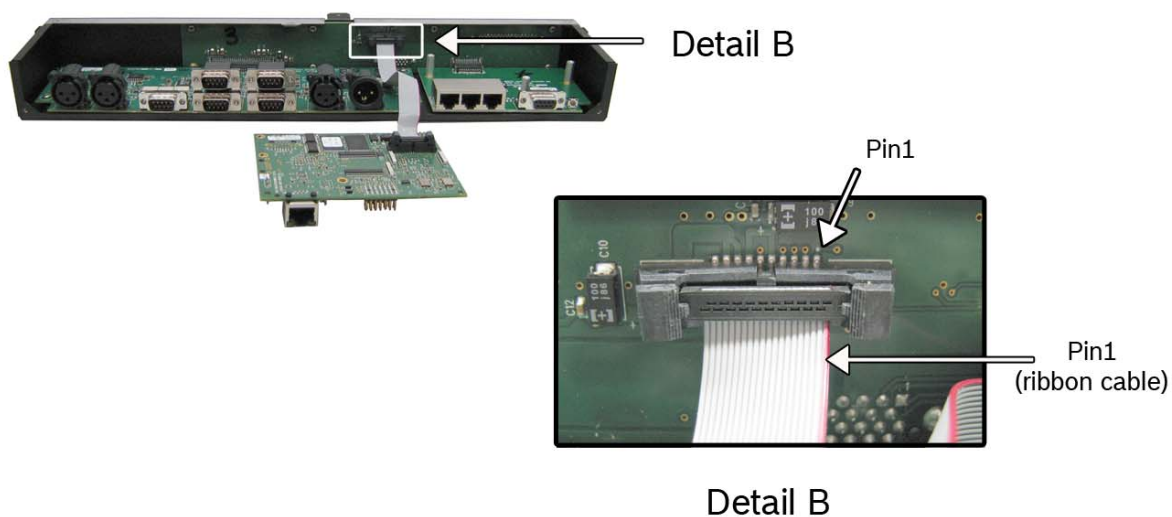


Pin 1
(ribbon cable)

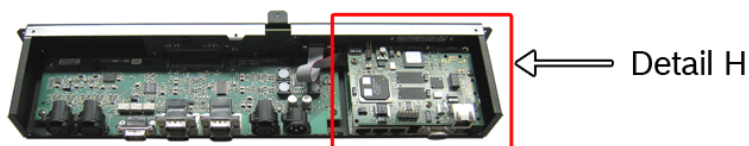
J5 Connector

7. Securely connect the **RVON-2 Option Card ribbon cable** to the J5 connector of the GPIO expansion panel interface board.

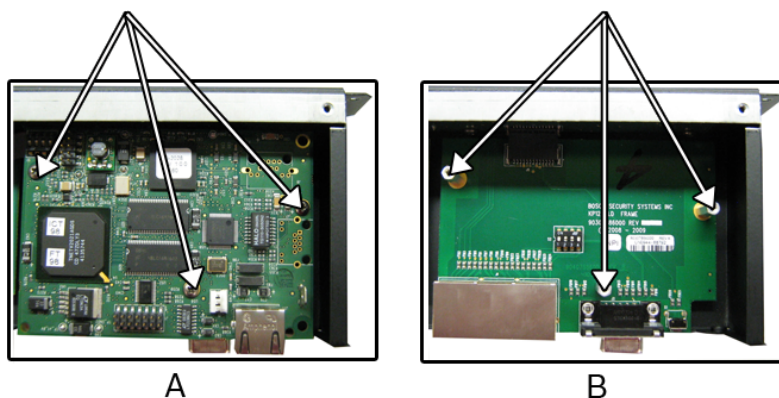
CAUTION: Do not connect the ribbon cable backwards, unintended results can occur.



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.



4-40 1/4" Pan Head Screw (3) 4-40, 3/16x5/8 Threaded Hex Standoff (3)



Detail H

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.

Addresses and the RVON-2

Because the RVON-2 has an Ethernet interface, it is required to have a **MAC** (Media Access Control) Address. This is a low level address that contains 48 bits. Do not confuse this address with an IP Address. In order to be IP compliant, all cards must have a unique MAC ID when shipped from the manufacturer. Typically, the MAC Address of a piece of hardware, such as the RVON-2 card, has a fixed or static address. Where as the RVON-2 card's IP Address can change over time.

The MAC Address uniquely identifies each node of a network and interfaces directly with the network media. The RVON-2 card has a small 8-pin serial device on the board that the processor can read the unique MAC Address from. For more information on MAC IDs, contact technical support.

NOTE: Each RVON-2 card needs to be programmed with its own IP Address.

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 Addresses for the RVON Product Line" on page 3. 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 3 (↑) or 6 (↓), select **Service**.
3. Press **SEL**.
The Service submenu appears.
4. Using the 3 (↑) or 6 (↓), select **RVON Setup**.
5. Press **SEL**.
The RVON-2 and RVON-IO appear in the display.
6. Using the 3 (↑) or 6 (↓), select **RVON-2**.
7. Press **SEL**.
IP Address, Gateway, and Netmask appear in the display.
8. Using the 3 (↑) or 6 (↓), 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 3 (↑) or 6 (↓), 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 39. 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 (P/N 93507772000).

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 3(↑) or 6(↓) select **RVON Offers**.
3. Press the **SEL** button.
Keypanel and Aux Input appear in the display.



4. Using the 3(↑) or 6(↓) select **Keypanel**.
RVON-2 and AIO¹ appear in the display.



5. Select the **Matrix connection type** you want to use.
A list of available ports appears.
6. Using the 3(↑) or 6(↓) 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 3(↑) or 6(↓) select **RVON Offers**.
3. Press the **SEL** button.
Keypanel and Aux Input appear in the display.
4. Using the 3(↑) or 6(↓) select **Aux Input**



5. Press **SEL**.
RVON Ch1 and RVON Ch2 appears in the display.



6. Using the 3(↑) or 6(↓) select **RVON Ch1** or **RVON Ch2**.
7. Press **SEL**.
A list of available RVON ports appears in the display.
8. Using the 3(↑) or 6(↓) select the **RVON port** you want to configure as an Aux Input.
9. Press **SEL**.
The RVON Aux Input is configured.

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

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 screen appears.

NOTE:

- The RVON card you use should be already configured. If it is not configured, refer to the specific RVON User Manual.
 - 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 channels listed, but a matrix port connection can only be made through channel 1.
 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 **Enable VAD**, 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

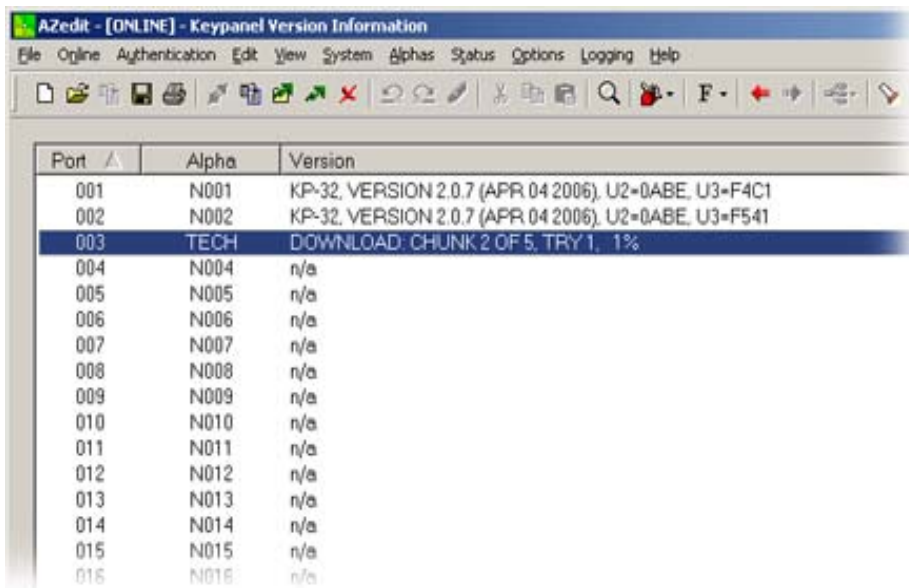
NOTE: AZedit sends firmware directly to the RVON-2 card over Ethernet. This is different from other I/O cards (except the RVON-8) that receive the firmware from the Master Controller. For this reason, verify the PC running AZedit is able to contact the RVON-2 card via the network, or is configured with 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:

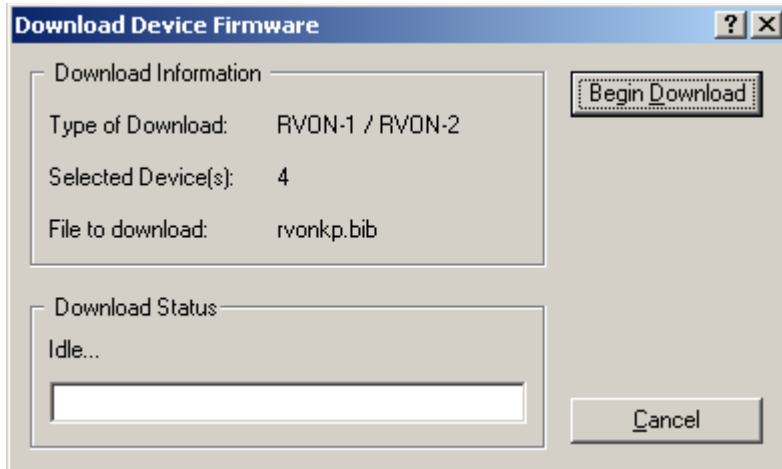
1. Open **AZedit**.
2. From the Status menu, select **Software Versions** and then **Keypanels**.
The Keypanel Version window appears.



3. At the bottom of the Keypanel Version Information window, select the **Show RVON 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**.

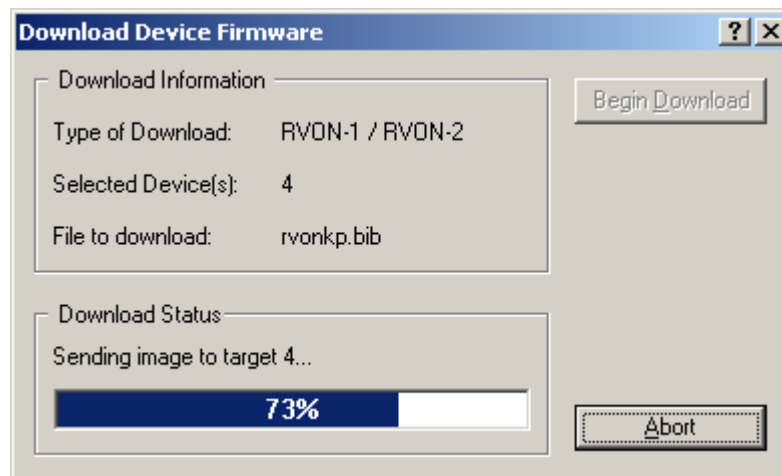
6. Click **Open**.

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 to occur.

CAUTION: 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

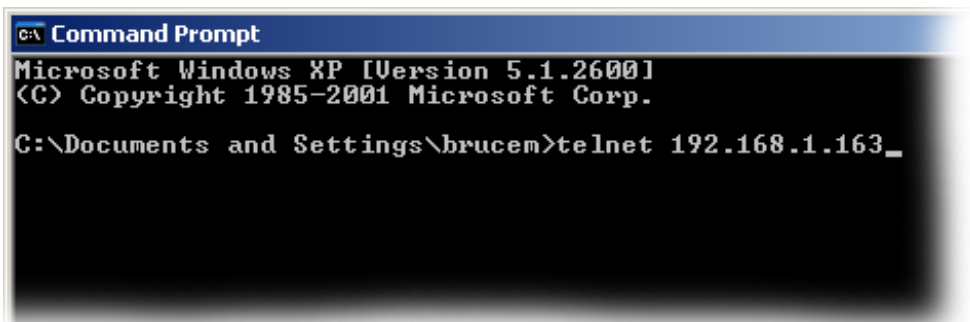
How to Configure the RVON-2 using Telnet

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.

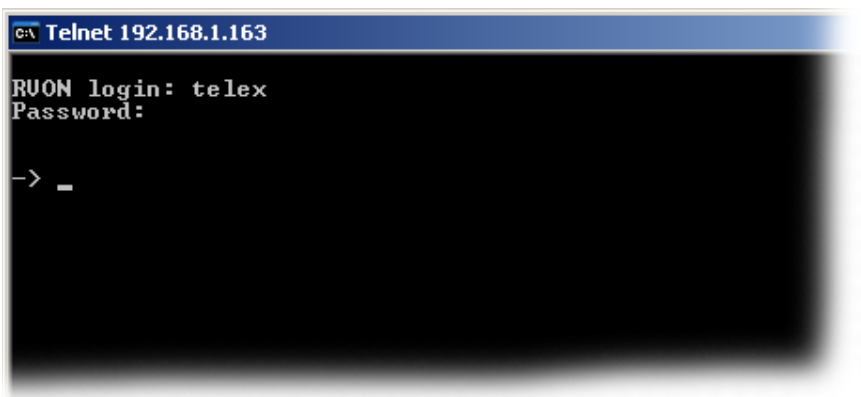
NOTE: These instructions are to help you get to the Telnet screens and give you an overview of what can be done. This is not an all-inclusive document. Not every action that can be performed is contained within the document.

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).

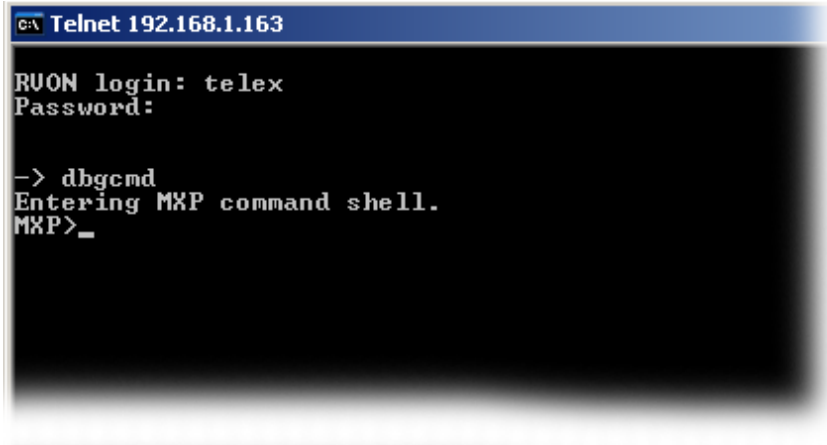


3. Press **Enter**.
The RVON logon screen appears.



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.



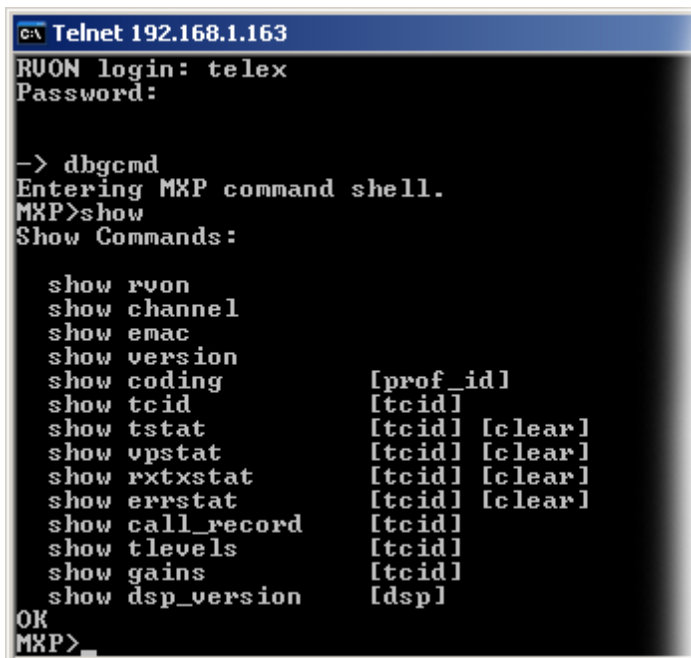
```

C:\ Telnet 192.168.1.163
RVON login: telex
Password:

-> dbgcmd
Entering MXP command shell.
MXP>_

```

9. Press **Enter**.
An MXP prompt appears.
10. At the prompt, type **Show**.
11. Press **Enter**.
The show commands screen and MXP prompt appears.



```

C:\ Telnet 192.168.1.163
RVON login: telex
Password:

-> dbgcmd
Entering MXP command shell.
MXP>show
Show Commands:

  show rvon
  show channel
  show emac
  show version
  show coding      [prof_id]
  show tcid        [tcid]
  show tstat       [tcid] [clear]
  show vpstat      [tcid] [clear]
  show rxtxstat    [tcid] [clear]
  show errstat     [tcid] [clear]
  show call_record [tcid]
  show tlevels     [tcid]
  show gains       [tcid]
  show dsp_version [dsp]
OK
MXP>_

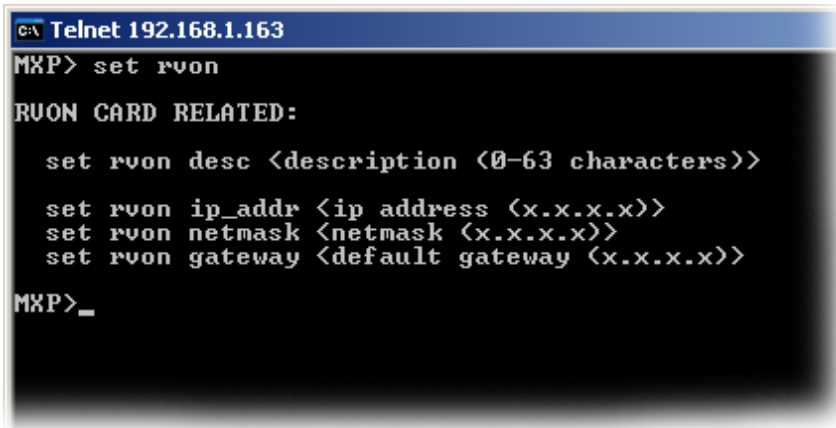
```

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**.



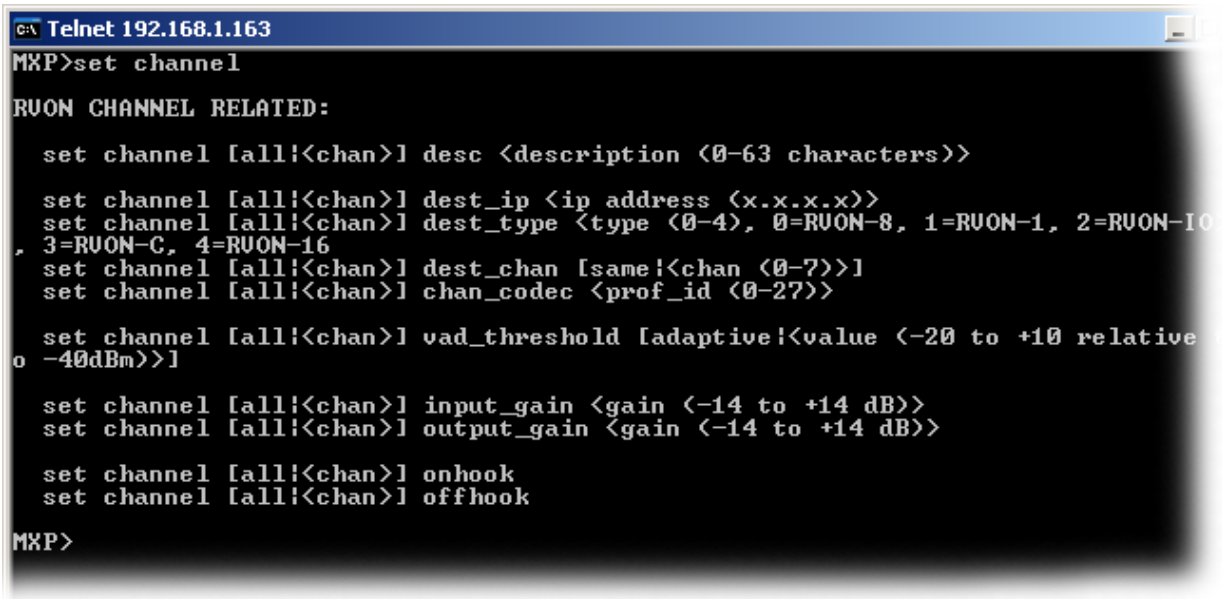
```
C:\> Telnet 192.168.1.163
MXP> set rvon
RVON CARD RELATED:

  set rvon desc <description <0-63 characters>>

  set rvon ip_addr <ip address <x.x.x.x>>
  set rvon netmask <netmask <x.x.x.x>>
  set rvon gateway <default gateway <x.x.x.x>>
MXP>_
```

Available parameters for this field are:

<i>set rvon desc</i>	Allows you to edit the RVON description up to 63 characters.
<i>set rvon ip_addr</i>	Allows you to edit the IP Address
<i>set rvon netmask</i>	Allows you to edit the netmask
<i>set rvon gateway</i>	Allows you to edit the gateway



```

C:\ Telnet 192.168.1.163
MXP>set channel
RUON CHANNEL RELATED:

  set channel [all:<chan>] desc <description (0-63 characters)>

  set channel [all:<chan>] dest_ip <ip address (x.x.x.x)>
  set channel [all:<chan>] dest_type <type (0-4), 0=RVON-8, 1=RVON-1, 2=RVON-10,
  3=RVON-C, 4=RVON-16>
  set channel [all:<chan>] dest_chan [same:<chan (0-7)>]
  set channel [all:<chan>] chan_codec <prof_id (0-27)>

  set channel [all:<chan>] vad_threshold [adaptive:<value (-20 to +10 relative
  to -40dBm)>]

  set channel [all:<chan>] input_gain <gain (-14 to +14 dB)>
  set channel [all:<chan>] output_gain <gain (-14 to +14 dB)>

  set channel [all:<chan>] onhook
  set channel [all:<chan>] offhook

MXP>

```

Available parameters for this field are:

<i>set channel desc</i>	Allows you to edit the channel description (up to 63 characters).
<i>set channel dest_ip</i>	Allows you to edit the destination IP Address the RVON-2 card communicates to
<i>set channel dest_type</i>	Allows you to edit the destination type for the device the RVON-2 card talks to
<i>set channel dest_chan</i>	Allows you to edit the destination channel of the device the RVON-2 talks to
<i>set channel chan_codec</i>	Allows you to edit the codec to be used for transferring the data between the two (2) devices
<i>set channel vad_threshold</i>	Allows you to edit the vad threshold for the channel. from -20 to +10dB
<i>set channel input_gain</i>	Allows you to edit the input gain for the RVON-2 card
<i>set channel output_gain</i>	Allows you to edit the output gain for the RVON-2 card.
	onhook = hang up
<i>set the channel onhook</i>	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.
	offhook = connected
<i>set channel offhook</i>	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).

Japanese Mode – Katakana and Kanji

When Katakana and Kanji is selected from the Alphas menu on one (1) of the KP 12 CLD keypanel, a few new menu items appear as well as changes in available selections for existing menu options.

NOTE: The following icons display to let you know which mode you are in. These icons stay in the display until the green heartbeat icon disappears

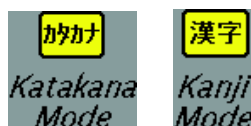


FIGURE 40. Booting up in Kanji

The following changes are seen when using the Japanese mode keypanel:

Quick Assign

Lock (Button Lock)

Group Call

Tally Duration

Keypanel Key Latch Disable

Quick Assign

Quick Assign is used to assign certain key assignments to any key on the keypanel without having to enter the keypanel menu or use AZedit.

Available selections for this field are:

Pt-to-Pt

Party Line

Special List

Group Call

NOTE: You can configure the auto-function assigned to the assignment type which is automatically applied to the quick assign key. For information on how to set the quick assign auto function, see “Quick Assign Auto-Functions” on page 195.

To **use quick assign**, do the following:

1. On the keypanel keypad, press the **SEL** button.
Assign and Clear appear in the display.



2. Using the 3 (↑) and 6 (↓), select **Assign**.
3. Press the **SEL** button.
The last quick assign key assignment type used, appears. For example, if the last quick assign was a Pt-to-Pt assignment, the next time a quick assign is made, the Pt-to-Pt key assignment type appears first in the display. To change the key assignment type, press either the UPG1 or UPG2 key.

NOTE: To configure the auto-function that is to be assigned to the quick assign key assignment type, see “Quick Assign Auto-Functions” .

4. Using the UPG button, select the **quick assign key assignment type** you want to assign to the key.
5. Tap a **keypanel key**.
The assignment appears above the key and flashes the auto-function assigned to it.

Quick Assign Auto-Functions

Auto-Functions are the listen functions that follow when a talk assign is created through Quick Assign.

Available selections for this field are:

<i>Auto Follow</i> –	Talk and listen can be activated separately. The listen assignment listens to whatever is assigned to the talk key.
<i>Auto Listen</i> –	Both talk and listen activate when talk is activated.
<i>Auto Mute</i> –	Listen turns off when talk is activated.
<i>Auto Reciprocal</i> –	Listen is always on and talk may be turned on or off.
<i>Auto Table</i> –	If an IFB talk has an auto-table listen assignment, talk and listen can be independently activated. The listen key listens to whatever is defined as the IFB Listen Source for the IFB assigned to the talk key. For an assignment other than IFB, auto-table acts like auto-follow.

To **configure the auto-function for the quick assign key assignment type**, do the following:

1. On the keypanel keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Press the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Quick Assign**.
5. Press the **SEL** button.
The Quick Assign sub menu appears.
6. Using the 3(↑) or 6(↓), select the **assignment type** you want to add the auto-function to.
7. Press the **SEL** button.
The available auto-functions for that assignment appear in the display.



8. Using the 3(↑) or 6(↓), select the **auto-function** you want to assign to the assignment type.
The auto-function is applied to the assignment type.
9. Press the **CLR** button to exit the menu structure.

Lock (Button Lock)

Lock is used to 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. On the keypanel keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.



4. Using the 3(↑) or 6(↓), select **Lock**.
5. Press the **SEL** button.
Tap Key appears.
6. 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.
7. Press **CLR** to exit the menu structure.

Group Call

Group Calls allow a user to call a group of users. When someone from the group of users answers the page, the group call becomes a private point-to-point conversation.

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

1. On the keypanel keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Assign**.
3. Tap the **SEL** button.
The Key Assign submenu appears.
4. Using the 3(↑) or 6(↓), select **Group Call**.
5. Tap the **SEL** button.
A list of Group Calls appears in the display.



6. Using the 3(↑) or 6(↓), select the **Group Call** you want to assign to the key.
7. Press the **SEL** button.
Tap Key appears.
8. Tap the **keypanel key** where you want to assign the group call.
The group call is assigned to the key.
9. Press the **CLR** button to exit the menu structure.

Tallies



FIGURE 41. Tallies Menu Option

Tallies are used to indicate incoming calls with blinking alpha assignments. You can configure tally time as 5 to 15 seconds or an indefinite period of time. If indefinite is chosen, the tally continues to blink until the call is answered.

The default for this field is *5 seconds*.

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

1. On the keypad keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Tallies**.
5. Press the **SEL** button.
Indefinite Min Duration appear in the display.
6. Using the 3(↑) or 6(↓), select **Min Duration**
Minute Duration: 5 seconds appears in the display widow.
7. Use the scroll arrows  to **adjust the tallies duration**.



8. Using the 3(↑) or 6(↓), select **5 to 15 Seconds** or **Indefinite**.
9. Press the **SEL** button.

A blue arrow  appears next to the selected option.

Latching

Latching is used to enable or disable latching on keypanel keys or individual keys. 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.

NOTE: You can enable latching globally or on a per key basis.

The default for this field is *enabled*.

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

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Latching**.
5. Press the **SEL** button.
Global and Per Key appear in the display.



6. Using the 3(↑) or 6(↓), select **Global**.
7. Press the **SEL** button.
Disabled and Enabled appear in the display.
8. Using the 3(↑) or 6(↓), select **Enable**.
Latching is active on all keys on the keypanel.
9. Press the **CLR** button to exit the menu structure.

To **enable latching on a per key basis**, do the following:

1. On the KP 12 CLD keypad, press **MENU**.
The Top Level menu appears.
2. Using the 3(↑) or 6(↓), select **Key Options**.
3. Press the **SEL** button.
The Key Options submenu appears.
4. Using the 3(↑) or 6(↓), select **Latching**.
5. Press the **SEL** button.
Global and Per Key appear in the display.



6. Using the 3(↑) or 6(↓), select **Per Key**.
7. Press the **Sel** button.
Tap button appears in the display.
8. Press the **keypanel key** you want to enable latching upon.
The key has latching enabled.
9. Press the **CLR** button to exit the menu structure.

*LCP 16 CLD**Quick Reference Menu Structure*

LCP - Level Control Panel		
Display		
	LCP 16	
		Assignments Display
		LCP 16 CLD Assigns (LCP Not Detected)
Audio Options		
	LCP 16	
		Encoder #1 - #16
		Inputs
		Aux In 1-3
		Matrix IN
Only available when RVON Option Card is installed		RVON Ch1
		RVON Ch 2
		Outputs
		Both Headsets
		Both Speakers
		Front Headset
		Front Speaker
		Rear Headset
		Rear Speaker
		Sidetone
		Unassigned (Default)

Introduction



FIGURE 42. LCP 16 CLD Front Panel

The **LCP 16 CLD Level Control Panel** is connected to KP 12 CLD keypanel and additional LCP 16 CLD panels, as shown in Figure 43. A maximum of three (3) LCP 16 CLD panels may be connected to one (1) KP 12 CLD keypanel.

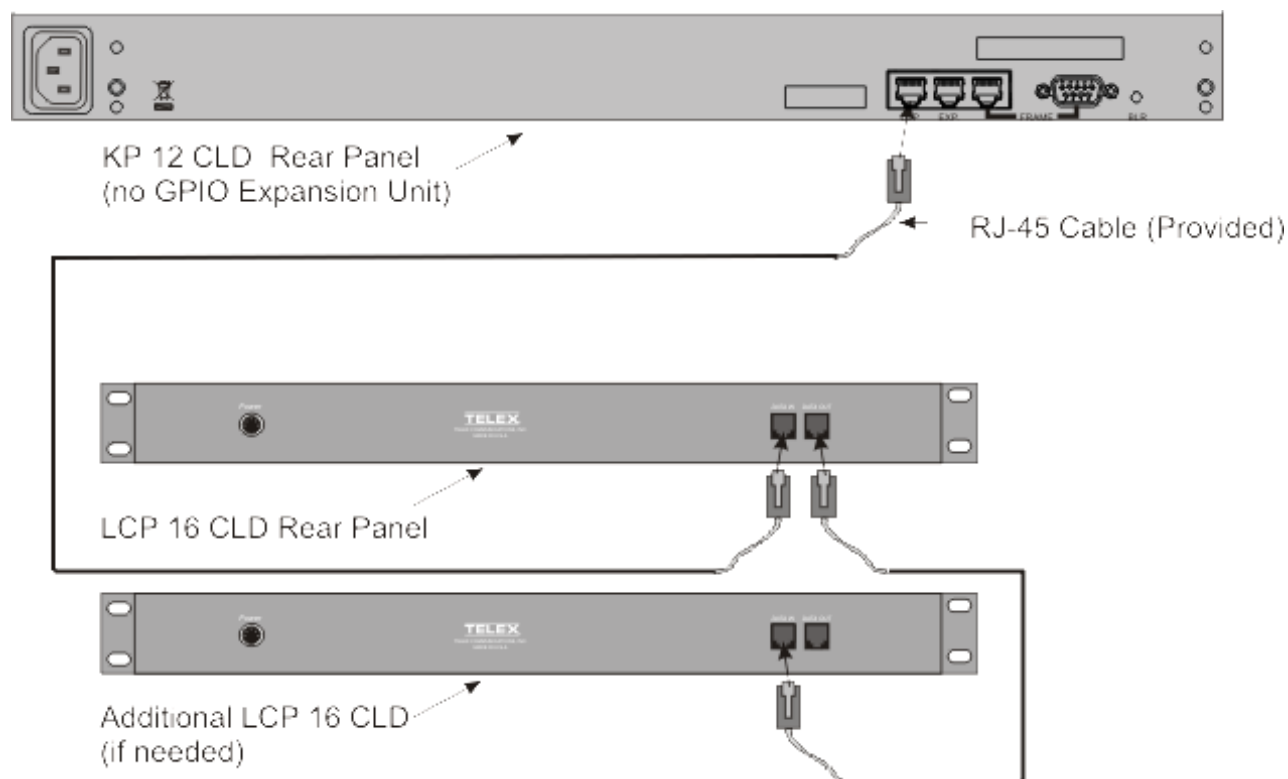


FIGURE 43. Hardware Setup for a KP 12 CLD and two (2) LCP 16 CLD

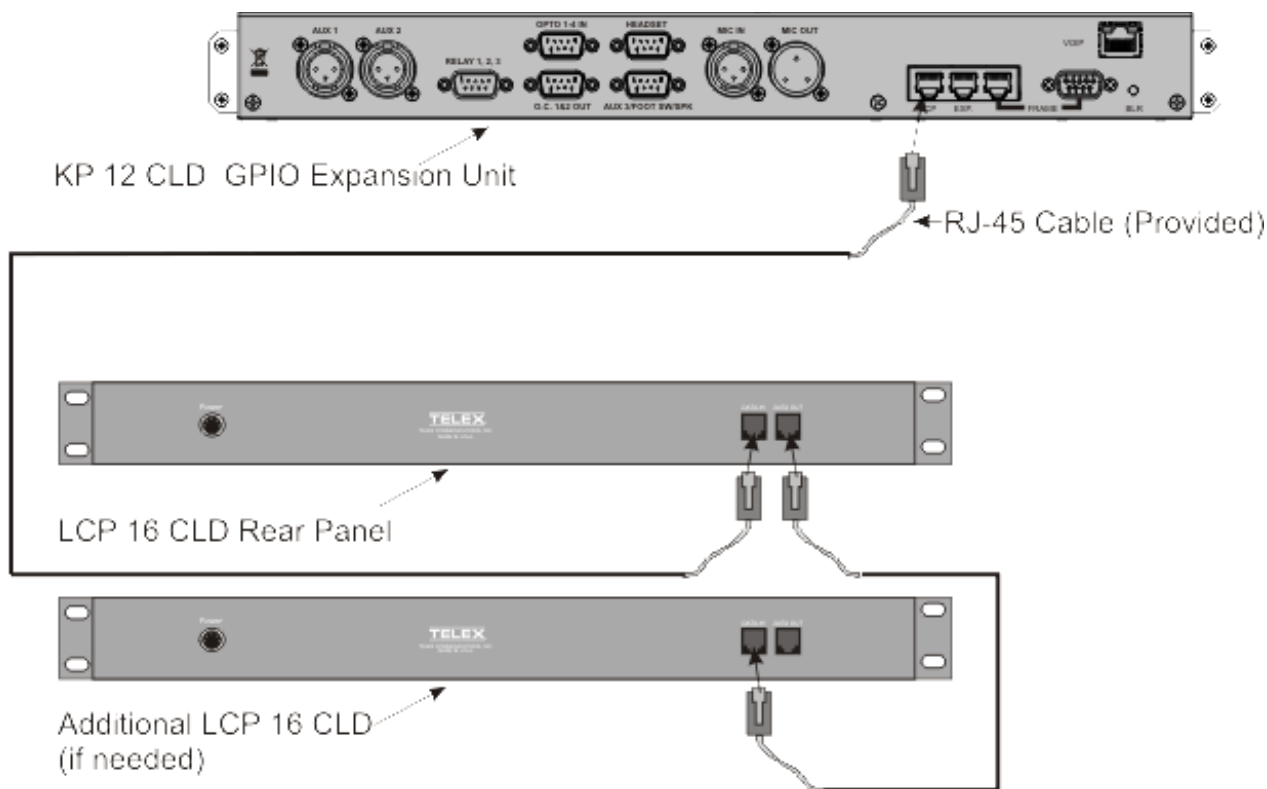


FIGURE 44. Hardware Setup for KP 12 CLD with a KP 12 CLD expansion panel and two (2) LCP 16 CLDs

The LCP 16 CLD can be connected to a KP 12 CLD and used without any additional intervention. Up to three (3) LCP 16 CLD panels can be connected. They are assigned in order of their connection. The first LCP 16 CLD connected to a KP 12 CLD is assigned (by default) to keys 1–16. The second LCP 16 CLD is connected to the first LCP 16 CLD and is assigned (by default) to keys 17–32. The third LCP 16 CLD is connected to the second LCP 16 CLD and is assigned (by default) to keys 33–48.

NOTE: The only time the KP 12 CLD needs to be configured for use with an LCP 16 CLD is when the KP 12 CLD's LCP 16 CLD settings have changed. This includes default changes, such as when an LCP 16 CLD is only needed on keys 17–32 or when it is used for aux source level control. For more information on how to configure the LCP 16 CLD encoders, see the KP CLD Family of Keypanels

REFERENCE: User Manual, P/N 93507858000.

LCP 16 Operation

NOTE: The LCP 16 CLD menu option in both the Audio Options and Display menus is always present whether or not an LCP 16 CLD unit is connected to the KP 12 CLD unit.

To **display the LCP 16 CLD assignments on the KP 12 CLD**, do the following:

1. Press the **MENU** key.
The top-level menu appears.
2. Using the ↓↓, scroll to **Display**.
3. Press the **SEL** key.
The Display menu appears.
4. Using the ↓↓, scroll to **LCP 16 CLD**.
5. Press the **SEL** key.
The LCP 16 CLD assignments appear under the corresponding keys in the KP 12 CLD display panel.

NOTE: If an LCP 16 CLD is not detected by the KP 12 CLD keypanel, the message LCP 16 CLD Assigns (LCP Not Detected).

To **change the LCP 16 CLD configuration on the KP 12 CLD**, do the following:

1. Press the **MENU** key.
The top-level menu appears.
2. Using the ↓↓, scroll to **Audio Options**.
3. Press the **SEL** key.
The Audio Options menu appears.
4. Using the ↓↓, scroll to **LCP 16 CLD**.
5. Press the **SEL** key.
The LCP-16 menu appears.
6. Using the ↓↓, scroll until **Inputs** appears, to configure the input levels.
OR
Using the ↓↓, scroll until **Outputs** appears, to configure the output levels.
OR
Using the ↓↓, scroll until **Sidetone** appears, to configure the sidetone levels.
OR
Using the ↓↓, scroll until **Unassigned** appears, to clear any configurations on a per key basis.
7. Press the **SEL** key.
The LCP 16 CLD configuration is changed.

Cyrillic Support

AZedit and Cyrillic Support

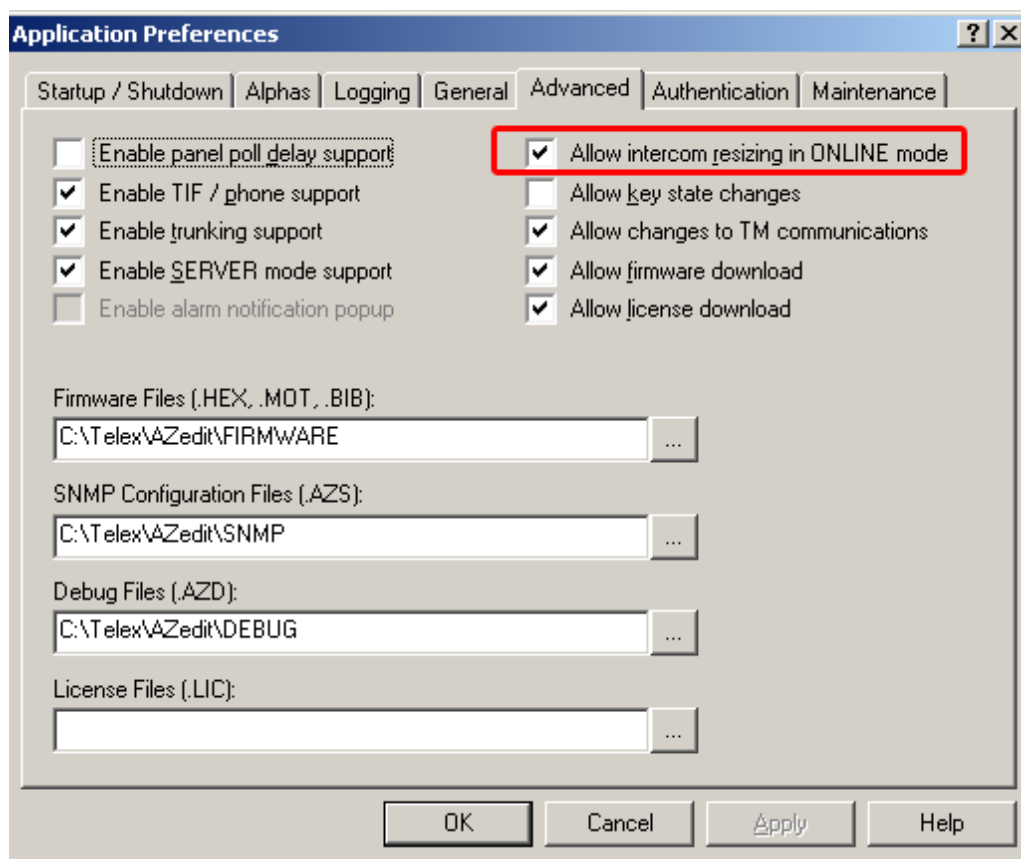
Minimum firmware revision requirements for Cyrillic support are:

- 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.

The screenshot shows the 'Intercom Configuration' window with the 'Options' tab selected. The window contains various configuration settings for an intercom system. The 'Enable Unicode Alphas' checkbox is checked and highlighted with a red rectangle. Other settings include 'Talk levels' (2), 'Listen levels' (1), 'Panels with Key Labels' (34), 'Key Labels Per Panel' (64), 'Setup pages per port' (4), 'Physical panels per port' (4), 'Keys per setup page' (16), and 'Maximum IFB priority' (3). There are also several unchecked checkboxes for advanced features like 'Use input alphas', 'Auto listen functions pick up all talk levels', 'Always stack callers in call waiting window', 'Configure onboard GPI Outputs in FR9528 mode', 'Allow for remote trunk master', 'Don't generate tallies for in-use trunk assignments', 'Don't generate tallies for off-hook TIF assignments', 'Don't generate indefinite PL tallies', and 'Generate snoop tallies'. At the bottom right is a 'Reset to Defaults' button, and at the bottom are 'Apply', 'Cancel', 'Test', and 'Help' buttons.

Option	Value
Talk levels	2
Listen levels	1
Panels with Key Labels	34
Key Labels Per Panel	64
Setup pages per port	4
Physical panels per port	4
Keys per setup page	16
Maximum IFB priority	3

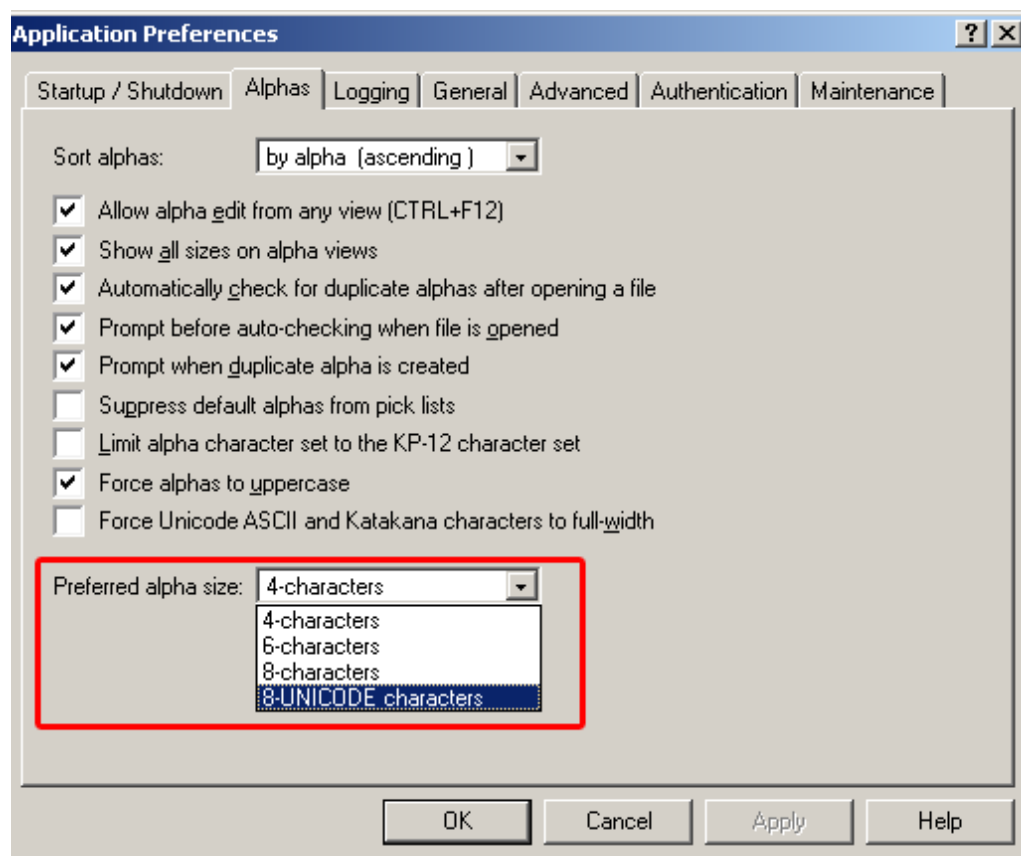
☐ Use input alphas
☐ Auto listen functions pick up all talk levels
☐ Always stack callers in call waiting window
☐ Configure onboard GPI Outputs in FR9528 mode
☐ Allow for remote trunk master
☒ **Enable Unicode Alphas**
☐ Don't generate tallies for in-use trunk assignments
☐ Don't generate tallies for off-hook TIF assignments
☐ Don't generate indefinite PL tallies
☐ Generate snoop tallies

Reset to Defaults

Apply Cancel Test Help

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 window 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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