

RP-1000 Series Keypanel Family *DKP 16-CLD & RP-1932* *User Manual*

up to and including version 2.0.2



RP-1000 Series



DKP 16 CLD



RP-1932 CLD

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	<p>This product is AC only.</p>
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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 RP-1000 Series family of keypanels from RTS introduces several new features designed to enhance capability and ease of use. The intuitive graphical interface is housed inside two (2) full-color 5.1-inch LCD displays (the DKP 16 CLD has a one full color 4.9" LCD). The front panel also features conveniences such as two (2) user-programmable buttons, one-touch listen volume adjustment on each of the 32 new multifunction user keys, and a backlit keypad. In addition, the RP-1000 series units can be ordered with the new, more intuitive RP-1000 series key sequences, or the classic key sequences. Like all RTS products, the RP-1000 Series family of keypanels are designed with expansion in mind.

Features

Full-Color LCD Displays

The new color display hosts an improved resolution^a and view angle as well as a rich and intuitive graphical user interface that indicates different keypanel functions in different colors.

Modern, Modular Design

The front panel is ergonomically designed to fit easily into any control room or truck application. The back panel is optimized for future expansion.

Multi-Directional Keys

32 multi-directional keys used for talk, listen, and emulation of traditional level control functions.

Future Expansion

Designed to allow for an expansion panel and optional connections to the matrix through current and future standard transmission formats.

Enhanced Features

RP-1000 allows up to six (6) auxiliary inputs (DKP 16 CLD has three [3] AUX inputs), three (3) relays, independent digital gain control for microphone sources, configurable audio routing and much more, through the use of an option board.

DSP Processing

Acoustic Echo Cancellation, Equalization, Mixing, Filtering and Metering are available.

User-Programmable Buttons

Two (2) user-programmable buttons (UPG-1 and -2) provide custom shortcuts to various menu functions.

GPI Option Board Available

The GPI Option Card 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 RP-1000 Series and DKP 16 CLD keypanels. VoIP Ethernet access via an RJ-45 connector, 10BaseT or 100BaseTx.

OKI-2 Option Card Available

The OKI-2 Option card provides up to two (2) additional full-duplex audio channels that can be mixed with audio in the RP-1000 Series keypanels. VoIP Ethernet access via an RJ-45 connector (10/100/1G at full audio bandwidth).

^a The DKP 16 CLD does not have the improved resolution.

Specifications

LCD Display

Size

5.1" LCD (DKP 16 CLD Is 4.9")

Resolution:

576 (RGB) x 172 (DKP 16 CLD 320 (RGB) x 96)

Input Sources

Panel Microphone / GPIO MIC IN

Electric Microphone Input Level

Nominal Level

-42.5dBu

Maximum Level

-22.5dBu

Impedance

1K to 10K Ω

Headset

Dynamic Microphone Input Level

Nominal Level

-50dBu

Maximum Level

-30dBu

Impedance

$\leq 600 \Omega$

Electric Microphone Input Level

Nominal Level

-42.5dBu

Maximum Level

-22.5dBu

Impedance

1K to 10K Ω

Keypanel Input

Nominal Input Level

8dBu

Maximum Input Level

20dBu

Auxiliary Input

Nominal Input Level

8dBu

Maximum Input Level

20dBu

Output Sources

Keypanel Output

Nominal Input Levels

8dBu

Maximum Input Level

20dBu

Frequency Response

100 - 15kHz ± 2 dB

MIC OUT

Nominal Input Level

8dBu

Maximum Input Level

20dBu

Frequency Response

100 - 15kHz ± 2 dB

Headphone Speaker

Power

80mW into 600 Ω

Impedance

$\geq 150 \Omega$

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

RP-1000 IO

1-3 Relay Outputs

1-2 Open Collectors

1-4 Opto-Isolators

DKP 16 CLD IO

1-3 Relay Outputs

1-3 Opto-Isolators

Connectors^a

Panel Microphone

1/4" Jack (see "1 1/4" Stereo Jack (Panel Mic)" on page 20 for pinouts).

Panel Headset

4-, 5-, 6-pin Female XLR (see "4-, 5-, 6-, 7-pin XLR (Female) Headset" on page 20 for pinouts).

Keypanel Audio Input / Output

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 21 for pinouts.

Expansion

RJ-45 (see "RJ-45 EXP (expansion)" on page 22 for pinouts).

GPIO MIC OUT

Male XLR-3 (see "XLR-3 (male) - Mic OUT" on page 21 for pinouts).

GPIO MIC IN

Female XLR-3 (see "XLR-3 (female) - Mic IN" on page 21 for pinouts).

GPIO Aux 1-2

Female XLR-3 (see "XLR-3 (female) - AUX 1 & 2" on page 21 for pinouts).

GPIO Aux 3-6

DB-15 (see "DB-15 (male) Aux 3, Aux 4, Aux 5, Aux 6" on page 20 for pinouts).

GPIO Headset

DB-9 (see "DB-9 (male) Headset" on page 21 for pinouts).

GPIO Relays 1-3

DB-9 (see "DB-9 Relay 1, 2, 3, 4" on page 20 for pinouts).

GPIO Open Collector 1-2

DB-9 (see "DB-9 (male) Open Collector (1-2)" on page 20 for pinouts).

GPIO Opto-Isolators 1-4 (DKP 16 CLD Opto-Isolators 1-3)

DB-9 (see "DB-9 (male) Opto-Isolator (1-4)" on page 20 for pinouts).

General

RP-1000

Storage Temperature

-40°C to 70°C (-40°F to 158°F)

Operating Temperature

0°C to 50°C (32°F to 122°F)

Dimensions

17.55"L x 3.47"H x 3.25"D (445.77mm x 88.138mm x 82.55mm)

Weight

6.00lb (2.72kg) (no option cards installed)

6.32lb (2.86kg) (GPIO option card installed)

Power Consumption

	@ 120 VAC	@ 220 VAC
No Options	33	41
GPIO Option	53	63
RVON-2 Option	37	46
OKI-2 Option	58	71
GPIO and RVON-2	38	47
GPIO and OKI-2	59	72

Input Power

100~240VAC, 50 - 60Hz

DKP 16 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

3.2"H x 10.1"W x 9.2"D (81.28mm x 256.54mm x 233.68mm)

Weight

3.78lbs (1.71kg) (no option cards installed)

4 lbs (1.81kg) (GPIO option card installed)

Power Consumption

	@ 120 VAC	@ 220 VAC
No Options	40	50
GPIO Option	63	85
RVON-2 Option	69	58
GPIO and RVON-2	70	59
GPIO	45	88

Input Power

100~240VAC, 50-60Hz

OKI-2 Board		
Audio		
Frequency Response		50Hz to 19kHz
Network Delay		<20ms typical
Bandwidth Requirements		
Per Channel		
Rx Latency	48kHz/24-bit	
1ms	2.59Mbit/s	

- a. See the DKP 16 CLD Reference View on page 19 or the RP-1932 CLD Reference View on page 200 for the connectors associated with each device.

RP-1000 Block Diagram

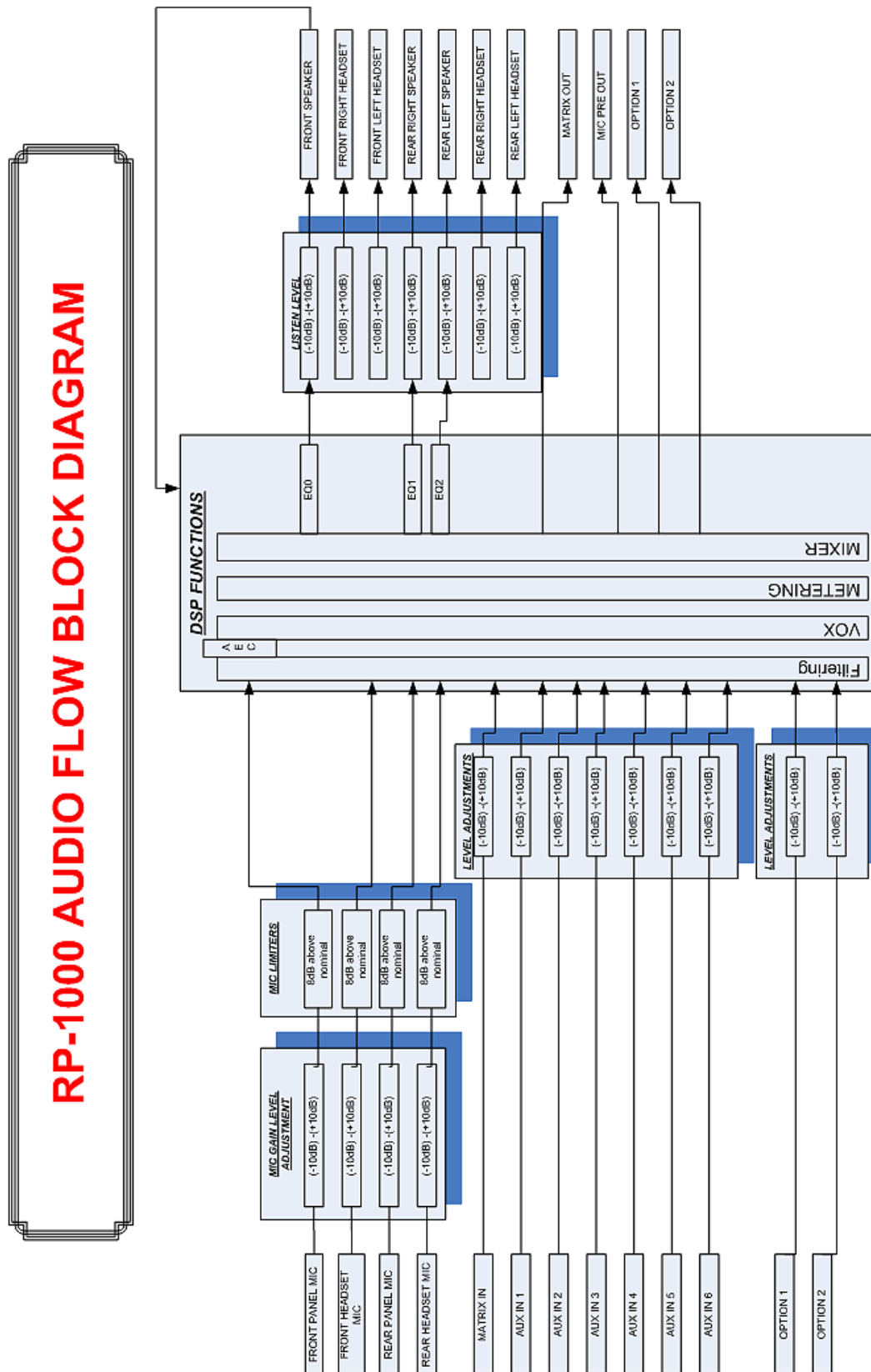


FIGURE 1. RP-1000 Block Diagram

Reference View – RP-1000

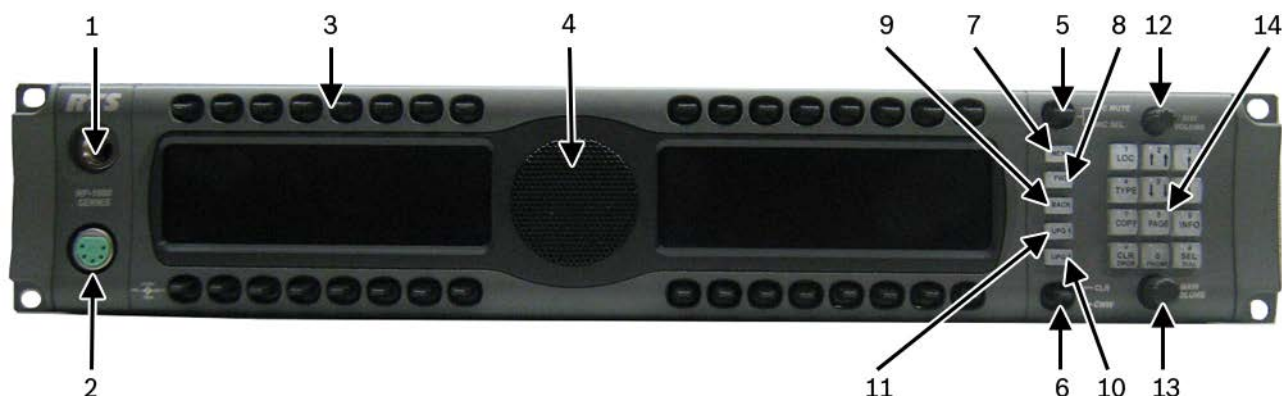


FIGURE 2. RP-1000 Front Panel

Front Panel Descriptions

1. **1 1/4" Stereo Jack** - Panel Mic
2. **4- or 5-pin XLR (female)** - Headset only connection.
6- or 7-pin XLR (female) - Headset and Footswitch connection.
3. **Keypanel Keys** - Press down to talk, press up to listen. For more information, see "Basic Intercom Key Operation" on page 40.
4. **Panel Speaker** - For more information, see "Mute the Microphone/Speaker" on page 50.
5. **Mic Mute / Mic Sel** - When the key is pressed up, the mic mute state is toggled. When the key is pressed down, the focus toggles between headset and panel mics, and headset and speaker outputs.

NOTE: The inputs/outputs affected by the Mic Sel key are dependent upon the Audio Out configuration (see "Audio Options Menu, Speaker" on page 98).

6. **CLR/CWW Key** - Clears the panel menu or answers the call waiting window.
7. **Menu button** - For detailed explanation, see "RP-1000 Menu System" on page 71.
8. **FWD button** - Allows you to go forward in the menu structure.
9. **BACK button** - Allows you to go backward in the menu structure.
10. **UPG 2 button** - Assigns any function from the menu structure to this key.
11. **UPG 1 button** - Assigns most functions from the menu structure to this key.

12. **Aux Volume** - Adjusts the volume of the Aux Inputs, the Matrix connections, RVON-2/OKI-2 Ch 1, and RVON-2/OKI-2 Ch2 from the option card. The range for this feature is *Mute, -48dB to 10dB*.

NOTE: When both RVON-2 Ch1 or OKI-2 Ch1 are configured for Matrix, they do not appear under the Aux Volume menu selections, rather as a Matrix connection.

13. **Main Volume** - Adjusts the volume for the front speaker, rear speaker, front headset and rear headset.
14. **Keypad** - Navigates through the RP-1000 menu structure and configure keypanel features as well as utilize the TIF dial-out features.

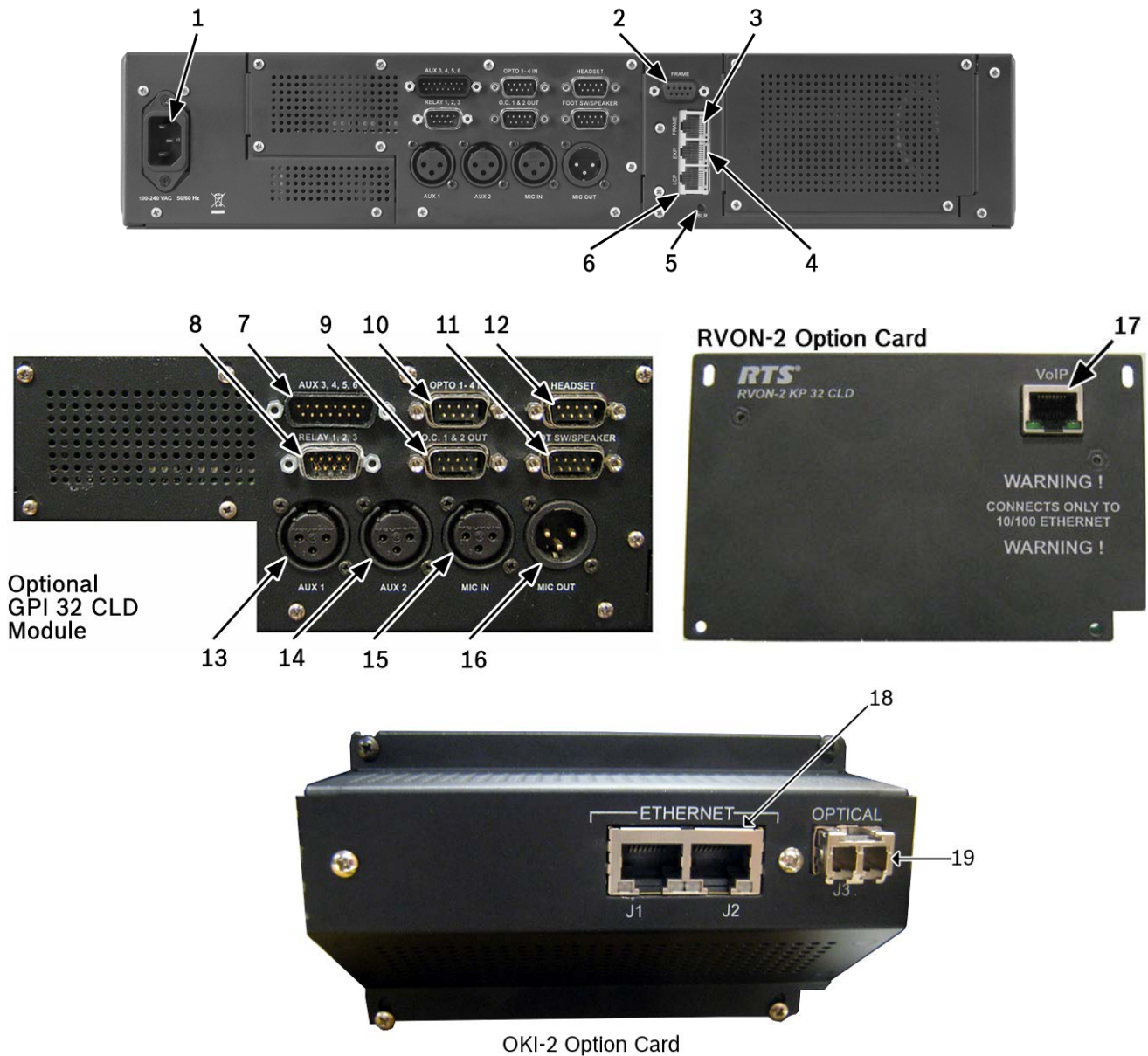


FIGURE 3. RP-1000 Back Panel, GPI 32 CLD Option Card, RVON-2 Option Card, and OKI-2 Option Card

Rear Panel Descriptions

1. **AC Power Connector**
2. **DB-9 (female) Connector** - Frame
3. **RJ-45 Connector** - Frame
4. **RJ-45 Connector** - Expansion
5. **BLR** - For more information, see “Download Firmware Using the BLR Function” on page 64.
6. **RJ-45 Connector** - LCP (for future expansion)
7. **DB-15 (male) Connector** - AUX 3, 4, 5, 6
8. **DB-9 (male) Connector** - Relay 1 – 3
9. **DB-9 (male) Connector** - OC1 & 2 OUT
10. **DB-9 (male) Connector** - Opto 1-4 IN
11. **DB-9 (male) Connector** - Footswitch/Speaker
12. **DB-9 (male) Connector** - Headset
13. **XLR-3 (female) Connector** - Aux 1
14. **XLR-3 (female) Connector** - Aux 2
15. **XLR-3 (female) Connector** - Mic IN
16. **XLR-3 (male) Connector** - Mic OUT

Optional RVON-2 CLD Module

17. **Ethernet RJ-45 connector** - RVON-2 Matrix Connection

Optional OKI-2 Module

18. **Ethernet RJ-45 connector (2x)** - OKI-2 Matrix Connector
19. **LC Fiber Connector**

Reference View – DKP 16 CLD

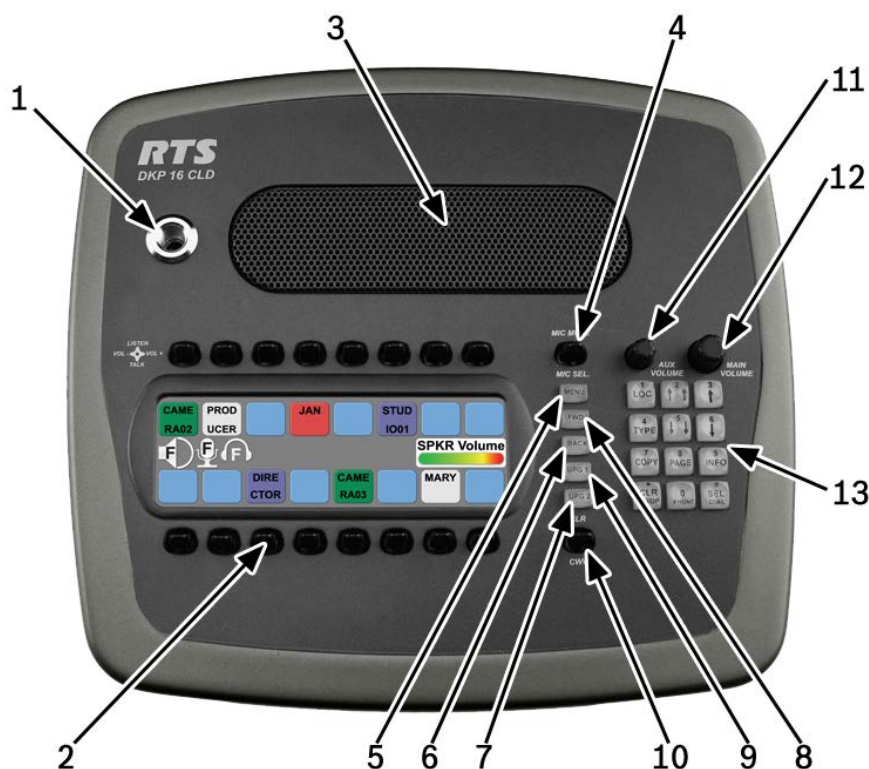


FIGURE 4. DKP 16 CLD - Top View

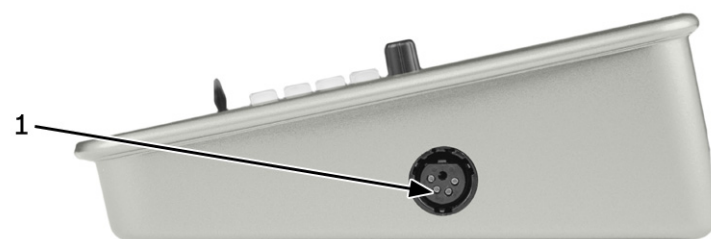
Front Panel Descriptions

1. **1 1/4" Stereo Jack** - Panel Mic
 2. **Keypanel Keys** - Press down to talk, press up to listen. For more information, see "Basic Intercom Key Operation" on page 40.
 3. **Panel Speaker** - For more information, see "Mute the Microphone/Speaker" on page 50.
 4. **Mic Mute / Mic Sel** - When the key is pressed up, the mic mute state is toggled. When the key is pressed down, the focus toggles between headset and panel mics, and headset and speaker outputs.
- NOTE:** The inputs/outputs affected by the Mic Sel key are dependent upon the Audio Out configuration (see "Audio Options Menu, Speaker" on page 98).
5. **Menu button** - For detailed explanation, see "RP-1000 Menu System" on page 71.
 6. **BACK button** - Allows you to go backward in the menu structure.
 7. **UPG 2 button** - User can assign any function from the menu structure to this key.
 8. **FWD button** - Allows you to go forward in the menu.
 9. **UPG 1 button** - User can assign any function from the menu structure to this key.

10. **CLR/CWW Key** - Clears the panel menu or answers the call waiting window.
11. **Aux Volume** - The Aux volume adjusts the volume of the Aux 1 and Aux 2 inputs, the Matrix connections, RVON-2 Ch 1, and RVON-2 Ch 2 from the option card (future). The range for this feature is *Mute*, *-48dB to 10dB*.

NOTE: When RVON-2 Ch1 is configured for Matrix, it does not appear under the Aux Volume menu selections, rather as a Matrix connection.

12. **Main Volume** - The main volume adjusts the volume for the front speaker, rear speaker, front headset and rear headset.
13. **Keypad** - The keypad keypad is used to navigate through the DKP 16 CLD menu structure and configure keypad features as well as utilize the TIF dial-out features.



Right Side



Left Side

FIGURE 5. DKP 16 CLD Front, Right and Left Side Views

1. **4-, 5-pin XLR (female)** – Headset
6-, 7-pin XLR (female) – Headset and Footswitch connection.
2. **4-, 5-pin XLR (female)** – Headset
6-, 7-pin XLR (female) – Headset and Footswitch connection.

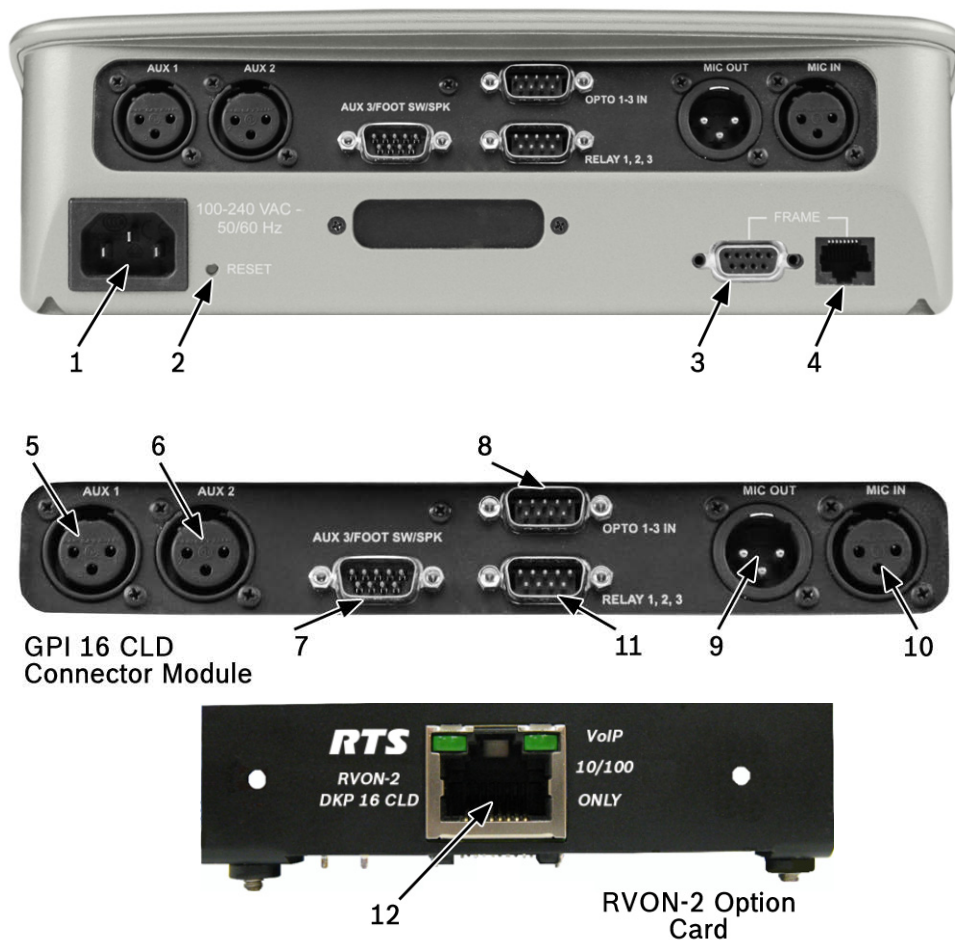


FIGURE 6. DKP 16 CLD Back View

Rear Panel Descriptions

1. **AC/Power**
2. **RESET**- For more information, see “Download Firmware Using the BLR Function” on page 64.
3. **DB-9 (female) Connector** - Frame
4. **RJ-45 Connector** - Frame

Optional GPI 32 CLD Connector Module

5. **XLR-3 (female) Connector** - Aux 1
6. **XLR-3 (female) Connector** - Aux 2
7. **DB-9 (male) Connector** - Aux 3, Footswitch and Speaker
8. **DB-9 (male) Connector** - Opto 1-3 IN
9. **XLR-3 (male) Connector** - Mic OUT
10. **XLR-3 (female) Connector** - Mic IN
11. **DB-9 (male) Connector** - Relay 1, 2, 3

Optional RVON-2 CLD Module

12. **Ethernet RJ-45 connector** – RVON-2 Matrix Connection

NOTE: The DKP 16 CLD does not support the OKI-2 module.

Connector Pinouts

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^a

	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

- a. The 6- and 7-pin configuration is not supported by the RP-1000; only the DKP 16 CLD

DB-15 (male) Aux 3, Aux 4, Aux 5, Aux 6^a

Pin	Assignment
1	AUX 3 Input +
2	AUX 3 Input -
3	AGND
4	AUX 4 Input +
5	AUX 4 Input -
6	AGND
7	DGND
8	+5VD
9	AGND
10	AUX 5 Input +
11	AUX 5 Input -
12	AUX 6 Input +
13	AUX 6 Input -
14	DGND
15	+5VD

- a. AUX 4, 5, and 6 are not supported by the DKP 16 CLD.

DB-9 Relay 1, 2, 3, 4

	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)^a

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

- a. Opto-Isolator 4-pin configuration is not supported by the DKP 16 CLD.

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	AGND

DB-9 (male) Footswitch/Speaker	
Pin	Assignment
1	AGND
2	Speaker Left -
3	AGND
4	Speaker Right -
5	Footswitch
6	Speaker Left +
7	NC
8	Speaker Right +
9	AGND

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

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

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

DB-9 (male) Frame	
Pin	Assignment
1	RS485 +
2	RS485 -
3	Audio IN (from Matrix) shield
4	Audio OUT (to Matrix) +
5	Audio OUT (to Matrix) -
6	Data Shield
7	Audio IN (from Matrix) -
8	Audio IN (from Matrix) +
9	Audio OUT (from Matrix) 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 7, 8, 9 for specific switch settings for the type of RJ-45 cable connection used.

RJ-45 Frame (Standard 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)

DB-9 (male) AUX 3/Footswitch/SPK (DKP-16 Only)	
Pin	Assignment
1	DGND
2	SPK L-
3	AUX IN+
4	SPK R-
5	Footswitch_N
6	SPK L+
7	AUX IN-
8	SPK R+
9	DGND

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

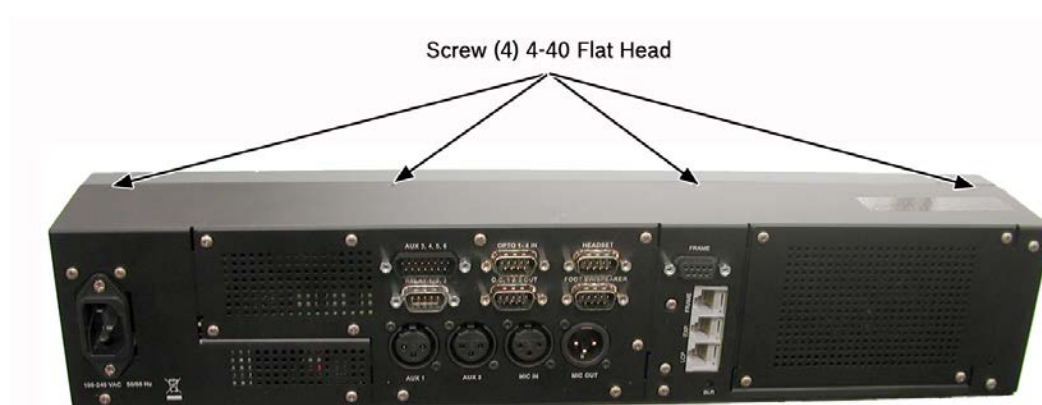
RJ-45 LCP	
Pin	Assignment
1	Data to LCP
2	Clock OUT
3	Data from LCP
4	GND
5	GND
6	GND
7	GND
8	GND

DB-9 (male) Opto-Isolator (1 & 2) (DKP-16 Only)	
Pin	Assignment
1	+5V (digital) current limiting resistor 1K
2	+5V (digital) current limiting resistor 1K
3	DGND
4	DGND
5	DGND
6	Switch Contact Input 1
7	Switch Contact Input 2
8	Switch Contact Input 3
9	NC

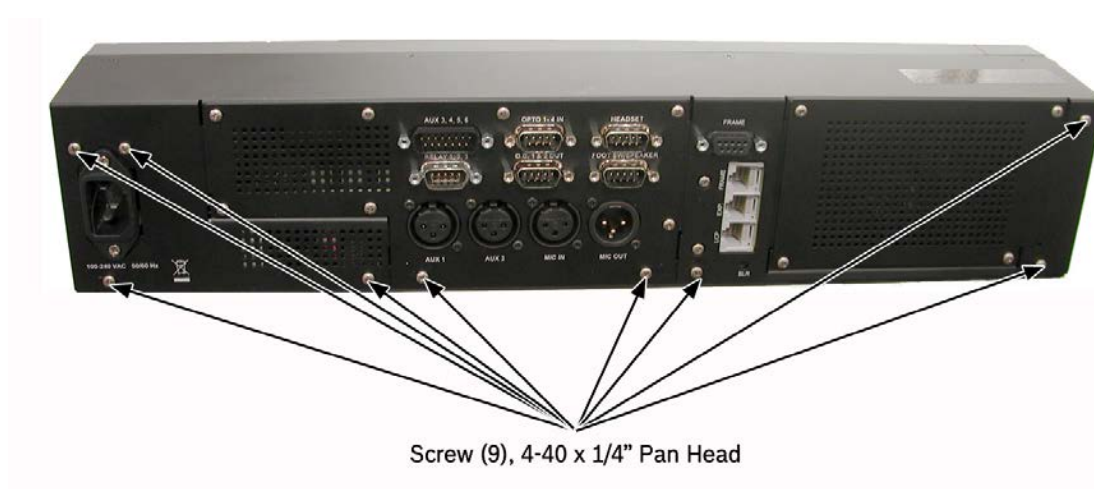
Accessing the Switch Bank

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

1. Remove the **four (4) screws** on the top of the unit.

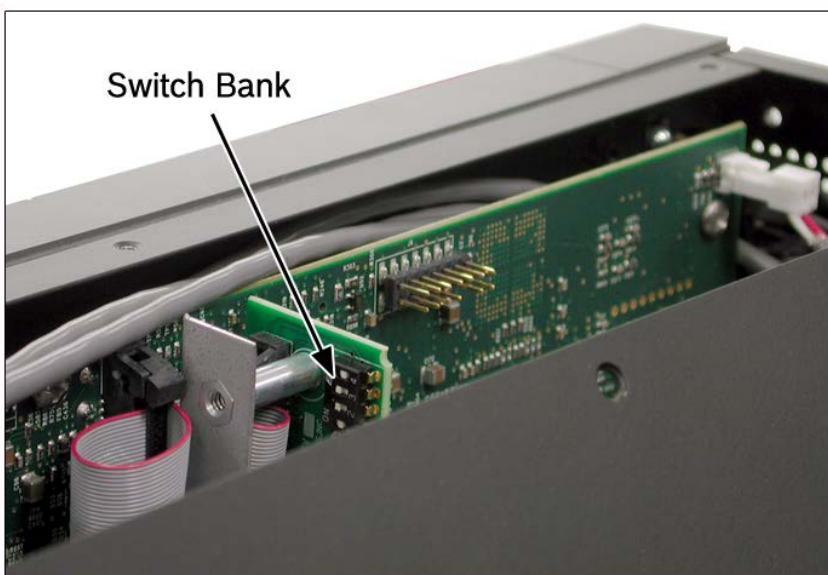


2. In no certain order, remove the **following screws**.



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

NOTE: The back panel is still attached by the DB-9 frame ribbon cable.



4. Using a pen or screwdriver, set the **switches** to the type of operation you desire. For operation modes, see Figure 7, Figure 8, or Figure 9.

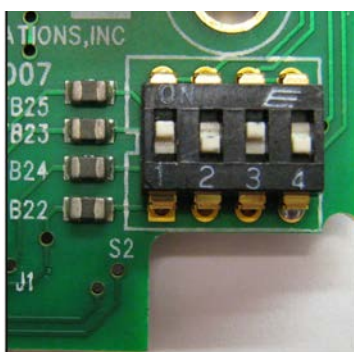


Switch 1 - OFF
Switch 2 - ON
Switch 3 - ON
Switch 4 - OFF

FIGURE 7. RTS Standard Cable (USOC)

USOC Wiring

1		Orange
2		Green
3		Blue
4		Blue & White
5		Green & White
6		Orange & White

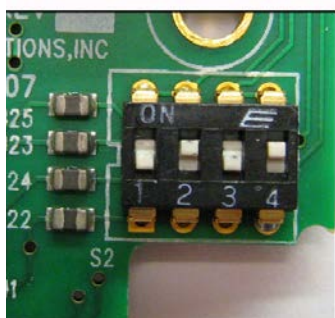


Switch 1 - ON
Switch 2 - OFF
Switch 3 - ON
Switch 4 - OFF

FIGURE 8. Standard CAT-5 Cable using pin 1 and pin 2 for RS485 functionality (568A)

568A Wiring

1		Green & White
2		Green
3		Orange & White
4		Blue
5		Blue & White
6		Orange
7		Brown & White
8		Brown



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

FIGURE 9. Standard CAT-5 Cable using pin 7 and pin 8 for RS485 functionality (568B)

568B Wiring

1		Orange & White
2		Orange
3		Green & White
4		Blue
5		Blue & White
6		Green
7		Brown & White
8		Brown

Requirements

The following keypanel firmware versions are needed for the specified RP-1000 model:

RP-1000 version 2.0.0 or later

RP-1000 with GPIO option card..... version 2.0.0 or later

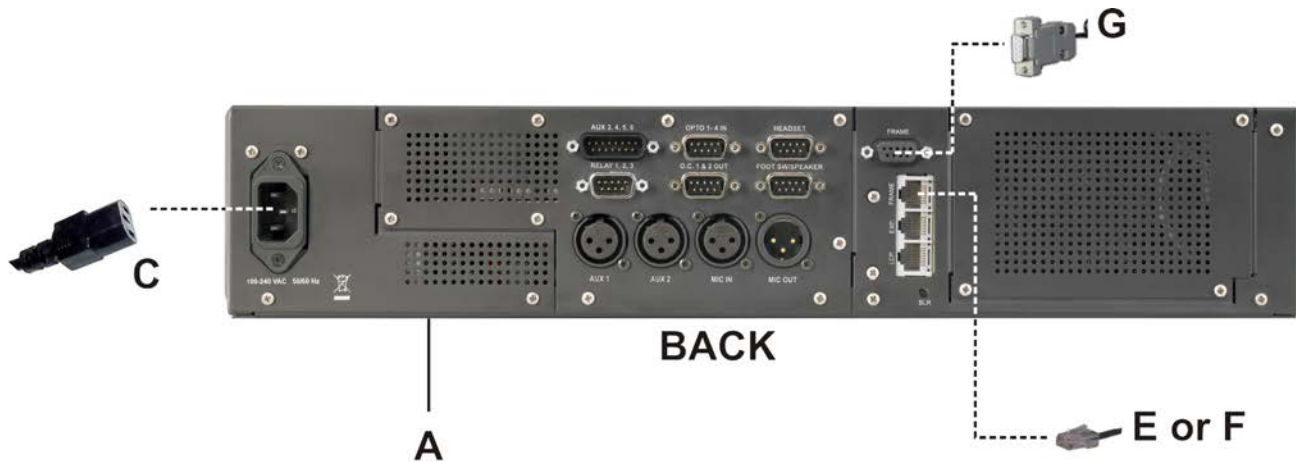
RP-1000 with RVON-2 option card..... version 2.0.0 or later

NOTE: You must be running RVON-2 firmware 2.1.6 or later.

RP-1000 with OKI-2 Option card..... version 2.0.0 or later

RP-1000 Installation

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



NOTE: The unit shown above has the optional GPIO card installed.


FIGURE 10. RP-1000 Installation

To **install the RP-1000**, do the following:


1. Plug the **Power Cord (A)** into the power connector RP-1000.
2. If required, set the **keypanel address**. For addressing information, see “Address Setting” on page 29 and “Service Menu, Set Address” on page 161.
3. Connect an **RJ11 cable with RTS cabling (B)** or **RJ45 cable with RTS cabling (C)** to the frame connector (see Figure 10).
OR
Connect a **DB9 cable (D)** to the DB9 frame connector (see Figure 10).
4. Using the RP-1000 and AZedit, **configure** your keypanel for operation.


Power Up

Connect a power cord to the unit and then to an AC power source. 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 a 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 window. Check the keypanel to matrix cable connection if this occurs. If the keypanel loses communications with the intercom,

the display window shows the Disconnected from Matrix icon and displays the  after approximately 30 seconds.

Address Setting

General Information

In ADAM, ADAM CS, ADAM M 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. RP-1000 Addressing

Manually Addressed	Automatically Addressed
<p>You must manually address^a the keypanel when using the following:</p> <ul style="list-style-type: none"> • AIO-8 on ADAM • AIO-16 SCSI on ADAM • ADAM CS • Zeus I • Zeus II 	<p>The keypanel is automatically addressed when using the following:</p> <ul style="list-style-type: none"> • AIO-16 MDR on ADAM and ADAM-M • Cronus • Zeus III and Zeus III LE/LE+ • RVON Products - RVON-8, RVON-2, RVON-C, and RVON-16. <p>NOTE: Keypanels using RVON-I/O may need to be individually addressed. See the RVON-I/O user manual for further instruction.</p>

a. To manually address the RP-1000, see “Service Menu, Set Address” on page 161.

To see specific addressing information for:

- ADAM with AIO-8 cards, see the ADAM installation user manual.
- ADAM CS, see the ADAM CS Installation user manual.
- ADAM and ADAM-M with AIO-16 cards, see the AIO-16 user manual (P/N F01U193267).
- Cronus, see Cronus user manual (P/N F01U118890).
- Zeus III, see the Zeus III user manual (P/N F01U193289).
- Zeus III LE/LE+, see the Zeus III LE/LE+user manual (P/N F01U193290).

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

Connections

Frame Connector

Use either of the Frame connectors (but not both) to connect to an intercom port of the intercom system. For frame connector locations, see Figure 3 on page 16. 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 the optional GPI 32 CLD option card 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.

NOTE: The headset connectors on the DKP 16 CLD are located on either side of the unit.

Panel Microphone Connector

A panel microphone may be connected to the front (or rear, with the optional GPI 32 CLD option card 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 it 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 RP-1000, in place of the headset connector.














Basic Operation

Intercom Keys and Displays

Color Display Descriptions for Intercom Keys

The RP-1000 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

	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 and 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 RP-1000.

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 is displayed as long as there is no Matrix data connection. NOTE: When the keypanel is disconnected, it displays its Device Name (for OMNEO) or IP Address (for RVON-2) devices.
	Firmware Download	Firmware is being downloaded to the keypanel. A progress bar displays: chunk progress overall progress chunk/overall progress NOTE: For more information, see “Download Firmware to the Color Keypanel Family From AZedit” on page 61.
	Footswitch Active	The footswitch is active.
	Footswitch Enabled	The footswitch is enabled, but not active. NOTE: When a keypanel key is latched while the Footswitch is enabled, the key display turns amber to signify that it is waiting for footswitch.
	Front Headphones	The front headphones are enabled. This indicates the front headset microphone is not enabled.
	Front Headset	The front headset is enabled. NOTE: On the DKP 16 CLD, the headset icons display L and R (left and right) instead of F and R (front and rear).
	Front Headset Mic Muted	The front headset mic is muted. NOTE: On the DKP 16 CLD, the headset icons display L and R (left and right) instead of F and R (front and rear).
	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 50. 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 98.
	Front Speaker Muted	The front speakers are muted. To mute the front speaker, see “Mute the Microphone/Speaker” on page 50.
	Rear Headphones	The rear headphones are active. This indicates the rear headset mic is not enabled To activate the rear headphones, see “Audio Options Menu, Headset Spkr” on page 87.
	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 96.
	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 98.
	Rear Speaker Muted	The rear speaker is muted. To mute the rear speaker, see “Mute the Microphone/Speaker” on page 50.
	Both Headphones	Both front and rear headphones are enabled. This indicates both the front and rear headset mics are disabled. To enable the front headphones, see “Audio Options Menu, Headset Spkr” on page 87.
	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 50. 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 98.
	Both Speakers Muted	Both front and rear speakers are muted. To mute the front speaker, see “Mute the Microphone/Speaker” on page 50.
	Snoop Tally Active	Snoop Tally is Active on the keypad. You must have the Hot Mic enabled to use snoop tallies. To enable snoop tallies, see “Service Menu, Snoop Tally” on page 162.
	Hot Mic	The hot mic is active. To activate Hot Mic, see “Audio Options Menu, Matrix Out” on page 92.
	Tone 1kHz Enabled	Tone 1kHz is enabled on the keypad. To enable tone 1kHz, see “Audio Options Menu, Tone Gen” on page 101.
	Tone 500Hz Enabled	Tone 500Hz is enabled on the keypad. To enable tone 500Hz, see “Audio Options Menu, Tone Gen” on page 101.
	Main Volume Bar	The main volume bar is used to control the volume for the keypad inputs and outputs, including all speaker and headset outputs, and matrix and aux inputs. If the volume of a speaker or headset is turned down to mute, the 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.
	Key Volume Bar	The key volume bar is used to control the listen gain on a per key level. The listen gain range is +6dB to -80db, or Mute. NOTE: Listen must be assigned on the key assignment for this function to operate.
	OMNEO Enabled	The OMNEO is enabled on the CLD panel. For more information on OMNEO Offers, see “Menu System, OMNEO Offers (Only available with OKI-2 option card installed)” on page 131.
	OMNEO Disabled	The OMNEO is disabled on the CLD panel. For more information on OMNEO Offers, see “Menu System, OMNEO Offers (Only available with OKI-2 option card installed)” on page 131.
	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 132.

TABLE 3. Display Icon Descriptions

Icon	Icon Name	Description
	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 132.
	Virtual Key Assignment	Keys are active on a virtual keypad that are not being displayed. For more information, see “Key Options Menu, Panel Swap” on page 123. NOTE: A talk or listen bar (or both) displays to indicate which type of virtual keys are active.

Standard Keypad

There are two (2) different keypad sequences you can apply to the RP-1000 unit, the Standard keypad sequence and the Classic keypad sequence. See “Keypad Quick Reference” on page 173 to view the Keypad Sequence Quick Reference.

NOTE: All keypads come pre-configured as either Standard or Classic, the instructions below are written for the Standard keypad.

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

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

Standard Keypad

NOTE:

- For information on Standard keypad sequences, see “Standard Keypad Sequence” on page 175.
- For information on the Classic Keypad, see “Classic Keypad Sequence” on page 174.



Keypad Button	Description ^a
MENU button	<p>The MENU button is used to access the top-level menu structure.</p> <ul style="list-style-type: none"> ➤ Press the Menu button once. <i>The top-level menu appears in the display window.</i> <p>NOTE: If the keypad backlight is set to Activate (Service Keypad Backlight), you must press the Menu button twice to access the top-level menu.</p>
FWD button	The FWD button moves you forward through the menu option highlighted. For example, if Display is highlighted in the display window and FWD is pressed, the second level of the display menu appears.
BACK button	<p>The BACK button moves you backward, one level, through the menu structure.</p> <p>NOTE: If you are at the top-level of the menu structure and press BACK, you cannot move backward any further.</p>
UPG 1 button	The UPG 1 button is used to assign a frequently used menu item. This allows users to access the menu item quickly. UPG buttons can also be programmed to trigger GPI outputs and panel swap events.
UPG 2 button	The UPG 2 button is used to assign a frequently used menu item. This allows users to access the menu item quickly. UPG buttons can also be programmed to trigger GPI outputs and panel swap events.
LOC (1) button	The LOC (1) button displays the list of available intercoms (LOCations) available to scroll from. Select an intercom name to access the scroll lists for that intercom.
TYPE (4) button	The TYPE (4) button displays the keypanel type assignments available for use.
COPY (7) button	<p>The COPY (7) button is used to copy an incoming call key assignment from the CWW to a specific keypanel key.</p> <p>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.</p> <p>NOTE: You can also copy from key to key by pressing COPY/SEL, and then tapping the source key and target key.</p>

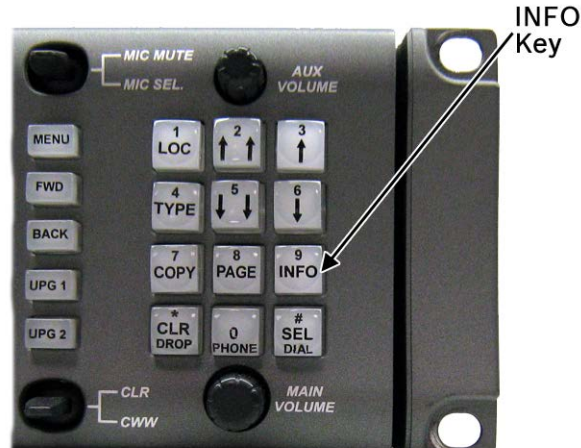
CLR/DROP (*) button	<p>The CLR/DROP (*) button is used to clear the CWW window or exit out of the menu structure. If the CLR/DROP button is pressed when in TIF mode, it hangs up the TIF connection.</p> <p>To access the DROP function, press PHONE (0), then DROP (or DIAL). The DIAL/DROP menu item appears. You use the menu normally, or use the DROP or DIAL keypad keys directly.</p>
↑↑ (2) button	The ↑↑ (2) button is used to page UP through available key assignments or menu options.
↓↓ (5) button	The ↓↓ (5) button is used to page DOWN through available key assignments or menu options.
PAGE (8) button	<p>The PAGE button is used to access a different setup page. You can configure up to 15 pages in the intercom system. The default number of pages is four (4). To configure the number of pages available use the Intercom Configuration window, on the Options page.</p> <p>To change setup pages using the keypad, do the following:</p> <p style="padding-left: 40px;">> Press 0, 8, <page>, depending on the setup page you want to view.</p>
PHONE (0) button	The PHONE(0) button accesses the TIF DIAL or DROP menu.
↑ (3) button	<p>The ↑ (3) button moves you backward through the menu structure or available key assignments one at a time.</p> <p>When in the MENU mode, pressing the ↑ (3) button moves you backward through the menu option highlighted.</p>
↓ (6) button	<p>The ↓ (6) button moves you forward through the menu structure or available key assignments one at a time.</p> <p>When in the MENU mode, pressing the ↓ (6) button moves you forward through the menu structure.</p>
INFO (9) button	<p>The INFO (9) button displays commonly used menu items in a side scroll list. Using the ↑ (3) and ↓ (6) buttons you can scroll through the list of options available. When a selection is highlighted, Press SEL to navigate down one level in the menu structure.</p> <p>By default, the INFO (9) list contains the following options: Id, Lev2, Lstn, Name, Type, Mtx, Tone, VRst, Asgn, Test, and Ver.</p> <p>NOTE: For more details about the INFO button, see “INFO button” on page 39.</p>
SEL/DIAL (#) button	<p>The SEL/DIAL (#) button is used to select options highlighted in the menu structure.</p> <p>The SEL/DIAL (#) button, when in TIF mode, is used to dial out from the keypad.</p>

- 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 RP-1000. These include the following:

Graphical Representation



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 101.
VRst	Opens the Key Volumes Reset menu. For more information, see “Press SEL. A blue arrow appears next to the selected option.” on page 88.
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 162.
Ver	Displays the firmware version currently loaded on the RP-1000. For more information, see “Display Menu, Version” on page 109.

Intercom Key Operation

Basic Intercom Key Operation

Coupled with the traditional operation of keys, the RP-1000 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 11 displays the different key positions and their meanings.

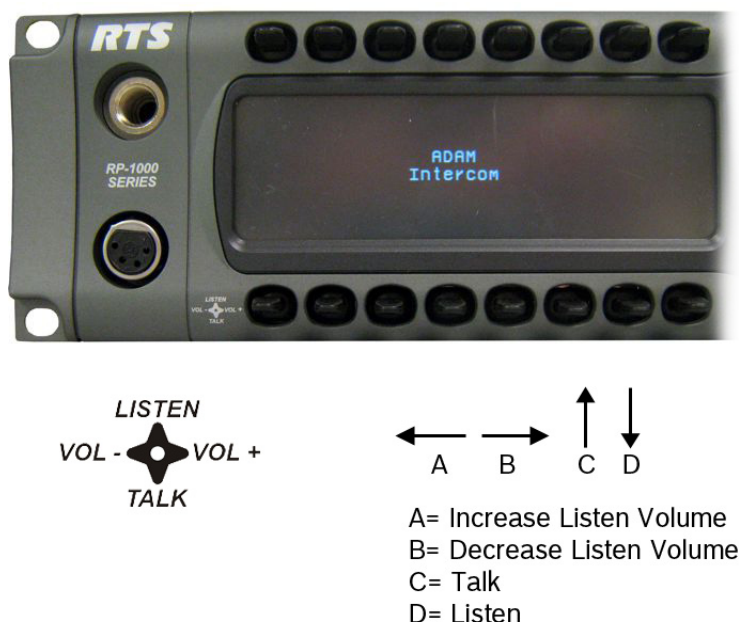


FIGURE 11. RP-1000 Key Position Explanation

Talk/Listen Indicator

The **Talk/Listen Indicator**, shown in Figure 12, 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.

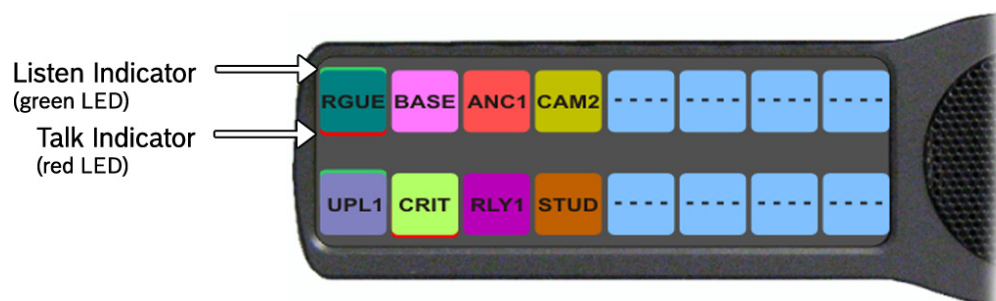


FIGURE 12. Talk/Listen Indicators

For the RP-100 Series of keypanels, you must be running CLD keypanel firmware version 1.1.1 to have talk and listen indicators supported on the display keys.

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 55.


Key Gain Adjustment

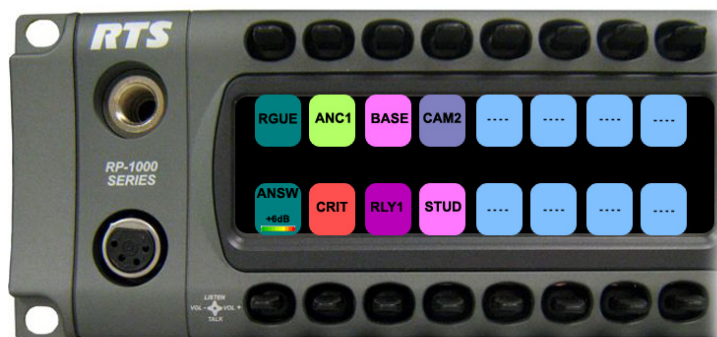
The **Key Gain Adjustment** is used to change the crosspoint listen gain on a specific key from the Matrix. This adjustment is automatically reflected in AZedit on the Crosspoint Gains window. (System|Gains|Crosspoint).

The range for this feature is -80dB to $+6\text{dB}$, 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:

1. On the RP-1000 front panel
 - Press the **keypanel key** to the right to increase the listen gain for the selected key assignment.
 - 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 window.



→
Increase Key Volume

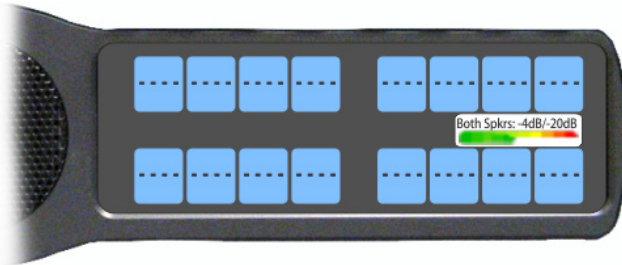
←
Decrease Key Volume

Listen Volume Adjustments

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

Output volume ranges from $+10\text{dB}$ to -48dB and *Mute*.

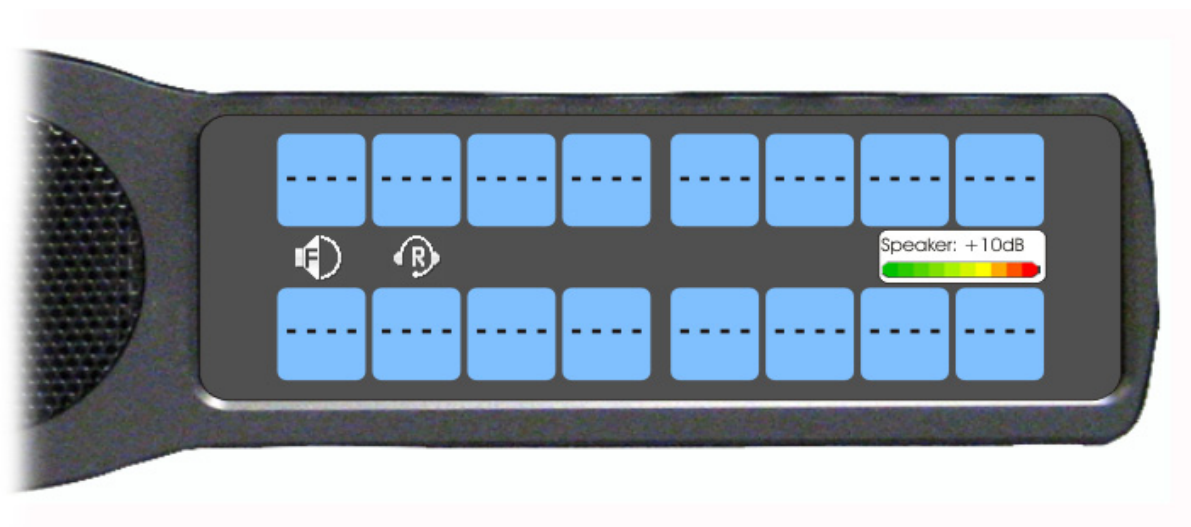
NOTE: If you gang speakers and/or headset volumes, you see a split volume bar. The front speaker or headset is the top portion of the bar, while the bottom portion of the bar is the rear speaker or headset volume.



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

- > On the RP-1000, turn the **MAIN VOLUME encoder** to the right to increase the volume for the listen destination OR Turn the **MAIN VOLUME encoder** to the left to decrease the volume for the listen destination.

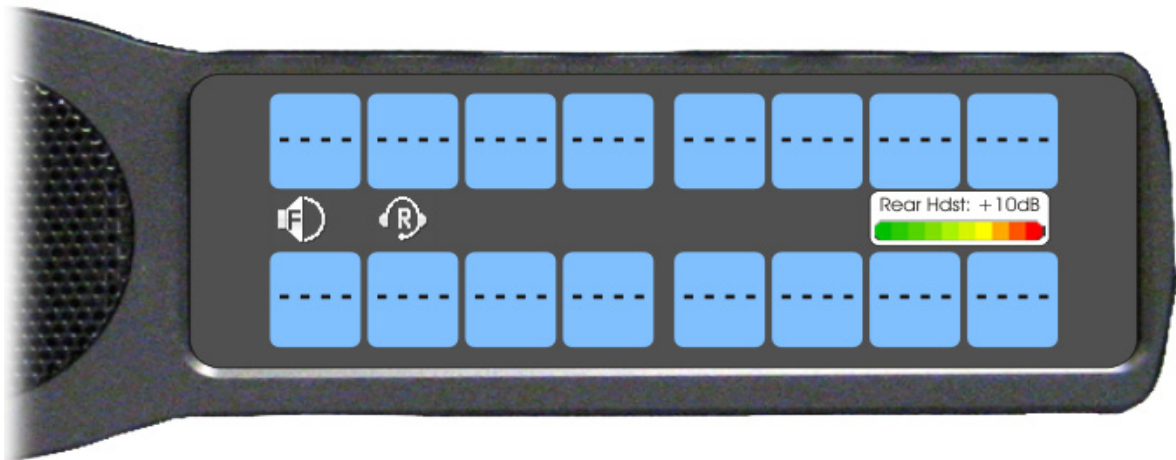
NOTE: When the MAIN VOLUME encoder is turned, the volume level bar appears in the display window.



NOTE: You can save the volume adjustments to be power-up defaults using Figure , “Menu System, Save Config,” on page 134.

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

- > On the RP-1000, push the **MAIN VOLUME encoder** once.
The listen destination main volume focus switches to the next listen destination shown, if applicable.



Aux Volume Adjustments

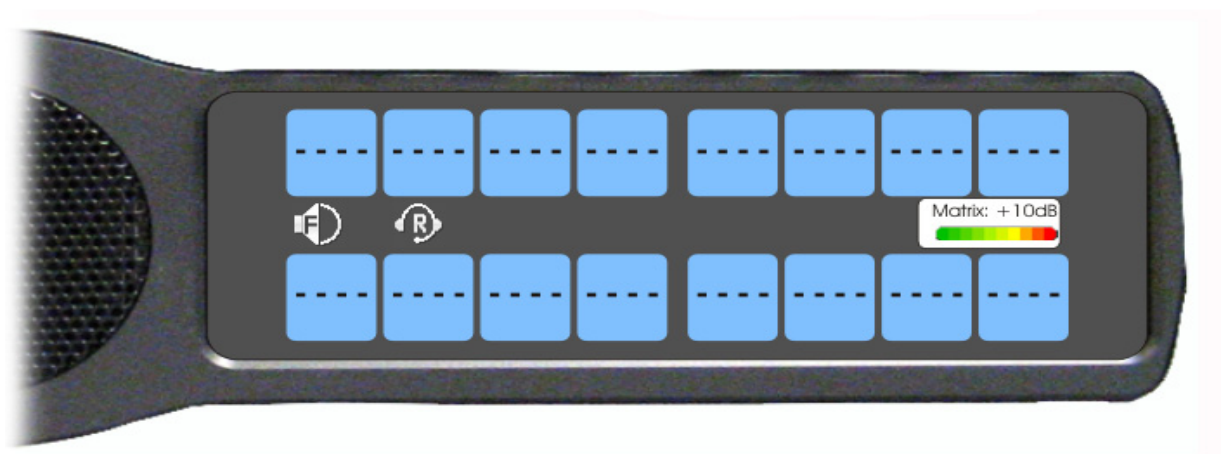
By default, the **Aux Volume** control adjusts the input volume, which include Aux 1-Aux 6 (Aux 2 for DKP-16) option card Channel 1, Channel 2, and Matrix IN.

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

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

- > On the RP-1000, turn the **AUX VOLUME encoder** to the right to increase the volume for the selected input.
OR
Turn the **AUX VOLUME encoder** to the left to decrease the volume for the selected input.

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

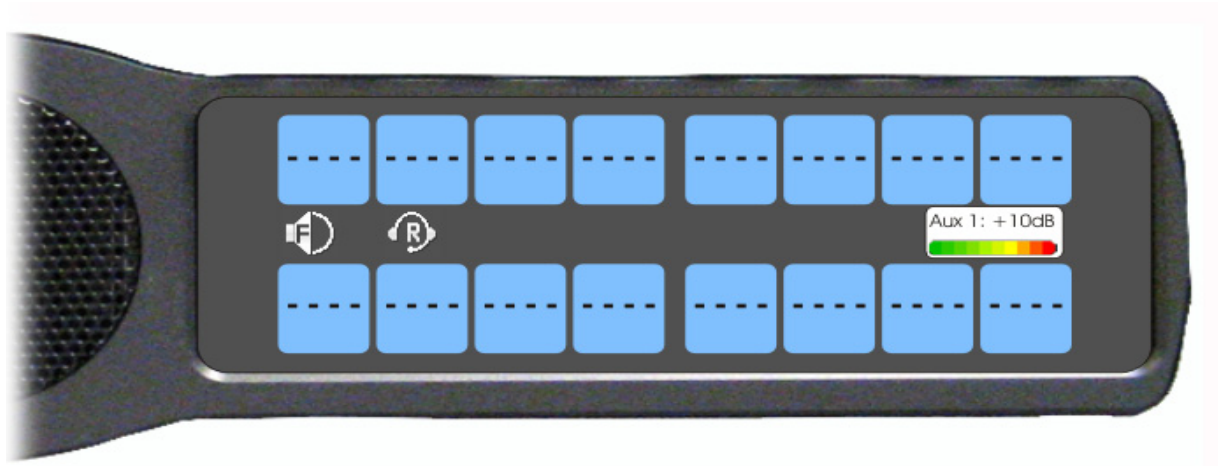


NOTE:

- You can save the volume adjustments to be power-up defaults using “Menu System, Save Config” on page 134.
- The inputs appear in the Aux Volume menu if they are enabled or present. For more information, see “Service Menu, Aux/Mtx Inputs” on page 137.

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

- > On the RP-1000, push the **AUX VOLUME encoder** once.
The aux volume focus switches to next input shown, if applicable.



Operation of Intercom Keys with Auto Functions

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

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 whatever is assigned to the talk key.
<i>Talk+auto listen</i>	Both 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 may 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 121.

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, Latching" on page 122.

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 73.

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 to an intercom port designated as a TIF port in AZedit, placing the key in the talk position activates the RP-1000 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 RP-1000. The keypad and/or keypanel sequence chosen determines how this feature is used, see “Service Menu, Keypad” on page 142.

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

1. On the RP-1000 keypad, press the **up and down arrow** key to scroll through the list of point-to-point connections available.

The selected port is highlighted in white.



NOTE: You can also use the arrow keys to page scroll through the list of ports available. Page scroll is useful when you have a large intercom system and you want to find a port quickly.

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

NOTE: If you are using the Classic keypad, see “Classic Keypad Sequence” on page 174.

3. On the RP-1000 keypad, use the arrow keys to scroll through the list of point-to-point connections available.
The selected port is highlighted in white.

TIP:

- To enable page scroll using the Classic keypad sequence, press **5**, and then use the double arrow keys to page scroll. Page scroll is useful when you have a large intercom system and you want to find a port quickly.
 - To exit page scroll mode, press **PGM**.
4. When the port is selected, press down on the **CWW key** to talk to the selected port.

Call Waiting Operation

Occasionally, a keypanel may call and there is not a key assigned to talk back to the caller. In this case, the caller's name appears in the **CWW** (Call Waiting Window). For CWW key location, see "Reference View – RP-1000" on page 15.

NOTE: In version 1.1.1 and later, the RP-100 Series of keypanels supports a graphical call waiting window. For more information, see "Graphical Call Waiting Window" on page 48.

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

- > Press down and hold the **CWW key** to talk back.

To **clear a name from the CWW window**, do the following:

- > When the CWW window is populated, tap **up** on the CWW key.

NOTE: If a second call is received in the CWW while a caller name is already displayed, the Call Waiting window flashes.

To **answer a second call**, do the following:

- > Tap **up** to clear the first name, and then hold the **key** down to talk to the second caller.

NOTE: By default, only the names of callers who are not currently assigned to intercom keys appear in the call waiting window. Alternately, you can force all caller names to display in the call waiting window. This is controlled by DIP Switch 2 on the ADAM Master Controller card or the *Always stack callers in the call waiting window* option found in AZedit (*Options/Intercom Configuration/Options*). Setting this option in AZedit overrides the DIP Switch 2 setting on the Master Controller.

Graphical Call Waiting Window

Traditionally, incoming calls have been displayed on key 16 on the keypanel, flashing to indicate an incoming call. With firmware version 1.1.1, the RP-1000 Series keypanel can keep a history of the last nine(9) callers and displays them in a scrollable, graphical window above keys 15 and 16. The CWW displays three (3) calls at a time (only two (2) in Kanji) with a scroll arrow appearing if there are more then three (3) calls in the list.

Firmware version 1.1.1 requires MCII-e version 2.1.0 or later.

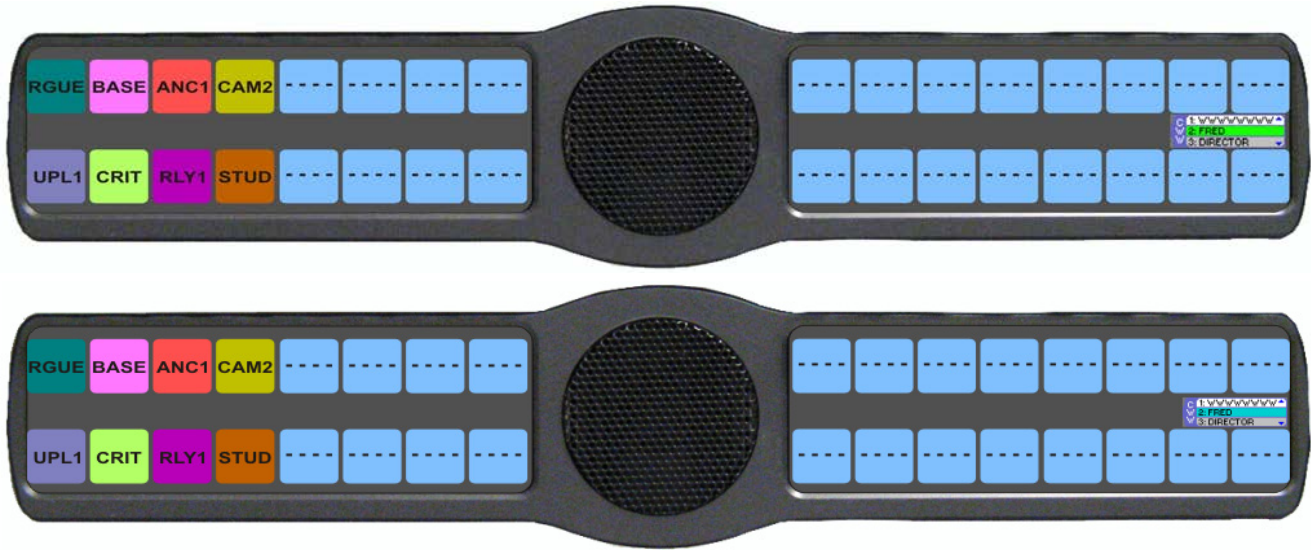


FIGURE 13. Graphical Call Waiting Window

TABLE 4. Graphical CWW Call Description

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 4 and Figure 13 to understand the different states of the CWW.

Display or Hide the CWW

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

- > On the RP-1000 panel, press up on the **CWW key**.
The graphical call waiting window appears.

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

- > Press the keypad **CLR key**.
The CWW closes.
OR
Press the **MENU button**.
The CWW temporarily closes and Menu mode is active. It stays hidden until menu mode is closed or times out (after one [1] minute).
OR
Rotate or press a **volume shaft encoder**.
The CWW temporarily closes while the volume display is shown.
OR
Enter **Page mode** (see “Standard Keypad” on page 36).
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-second timeout.

Incoming Calls

When a call is received at the RP-1000 panel, the graphical CWW list appears on the keypad display. Unlike the keypad tally indicators in previous keypad versions, the graphical CWW list appears on the keypad display. Unlike the keypad tally indicators in previous keypad versions, the graphical CWW and the call flashes (tallies), rather than the CWW button.

Up to nine (9) calls can be stored in the CWW history scroll list. The most recent call is inserted at the top of the graphical CWW list (position 1) with a white background (See Figure 13). 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 14. Graphical Call Waiting Window Highlighted Call

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

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

1. Scroll the **CWW** to highlight the call you want to answer.
The highlighted call is shown with a cyan background.
2. Press and hold the **CWW key** to talk to the caller.
The highlight in the CWW list turns green when talking with the caller.
3. Release the **CWW key** to stop talking.
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 the **arrow down** button.
The highlight moves through the scroll list.

Clearing the CWW List

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

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

Mute the Microphone/Speaker

Depending on the sources selected, as shown in the display window, when the Mic Mute switch is pressed UP, the corresponding features are muted (shown with a mute icon  overlaid on the feature icon). For Mic Mute key location, see “Reference View – RP-1000” on page 15.

NOTE: Figure 15 is a representation of what the mute icon looks like in the display. All muted icons cannot be seen as shown in Figure 15. See Table 5 on page 51 for information on when the various display icons appear relative to the configuration options specified.



FIGURE 15. All Muted Display Icons

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

Mic Select

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

For more information, see:

- “Audio Options Menu, Headset Spkr” on page 87
- “Audio Options Menu, Panel Mic” on page 96
- “Audio Options Menu, Headset Mic” on page 84

TABLE 5. Source Configuration Matrix and Display icons





























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

TABLE 5. Source Configuration Matrix and Display icons

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

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

User Programmable Keys

UPG 1 and **UPG 2** (see Figure 2 and Figure 4) 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 window 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 54.

The UPG keys 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.

NOTE: The UPG keys can be cleared using Key Options|Clear from the keypad menu.

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

1. On the RP-1000 keypad, press **MENU**.
The Information menu appears.
2. Using the arrow keys, 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 window.

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

1. On the RP-1000 keypad, press **MENU**.
The Information menu appears.
2. Using the arrow keys, select **Service**.
3. Press **SEL**.
The Service menu appears.
4. Using the arrow keys, select **Local GPIO**.
5. Press **SEL**.
GPIO Inputs and GPIO Outputs appears in the display window.
6. Using the arrow keys, select **GPIO Outputs**.
7. Press **SEL**.
OC Out 1, OC Out 2, Relay 1, Relay 2, and Relay 3 appear in the display window.
8. Using the arrow keys, select the **Relay 1, Relay 2, or Relay 3**.
9. Press **SEL**.
Not Assigned, Talk Key, UPG 1, and UPG 2 appear in the display window.
10. Using the arrow keys, select **UPG 1** or **UPG 2**.
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 RP-1000 keypad, press **MENU**.
The Information menu appears.
2. Using the arrow keys, select **Service**.
3. Press **SEL**.
The Service menu appears.
4. Using the arrow keys, select **Scrn Saver**.
Activate, Delay and Mode appear.
5. Using the arrow keys, select **Activate**.
6. Press **SEL**.
The screen saver activates on the keypad.
7. Press and hold the **UPG key** you want to assign this option to for two (2) seconds.
Menu position saved appears in the display window and the screen saver feature is assigned to the UPG key.

Keypanel Color Window

The **Keypanel Color** window, shown in Figure 16, is used to change the colors assigned to a function types, key assignments, assignment groups and talk/listen indications. You can modify local intercom key assignments and function type colors, as well as remote intercom function type colors, giving you the flexibility to distinguish different systems through the use of color patterns.

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

- when using a CLD family keypanel (KP 32 CLD, DKP 16 CLD, KP 12 CLD, EKP 32 CLD) firmware version 1.1.1 is installed on the KP 32 CLD or v1.0.1 on the KP 12 CLD.
- when using an RP-1000 series keypanel (RP-1000 and RP-1932) firmware version 2.0.0 is installed on the RP-1000.
- running AZedit version 3.7.0 or later.
- running MCII-e version 2.1.0 or later.

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

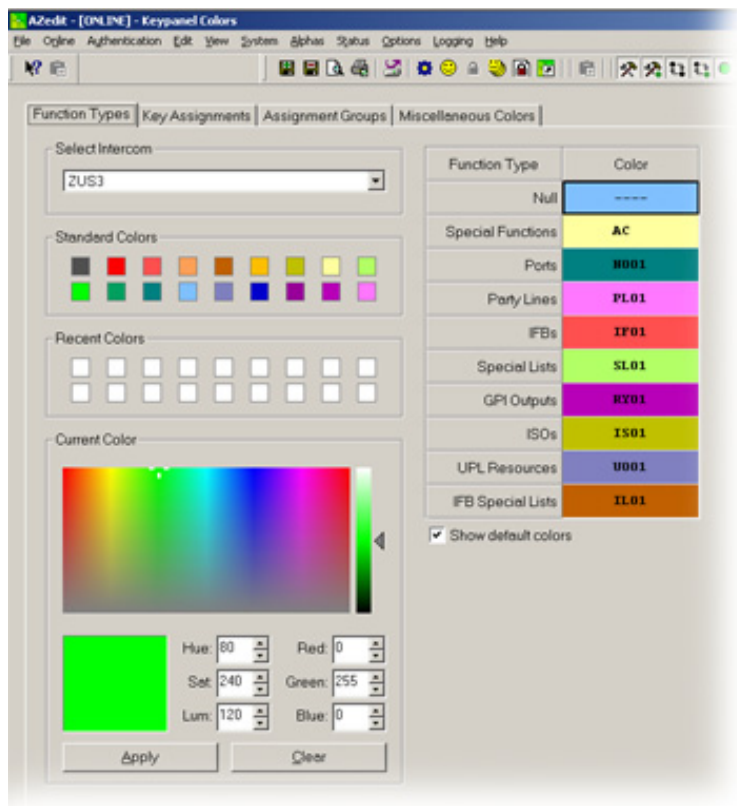


FIGURE 16. Keypanel Colors Window

Function Types Page

The **Function Types** page, shown in Figure 16, 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** for which you want to change the key function types.
2. From the Color column in the right pane, select the **function color box** for which you want to change the color.
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 of the type of assignment.

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 17. Function Type and Color Columns

Function Type Column

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

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

Color Column

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

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

Show Default Colors Check Box

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

Key Assignment Page

The **Key Assignment** page, shown in Figure 18, is used to change the colors assigned to the various assignment types. This means you can assign different colors to the individual function type resources. For example, you can change the display color for the party line assignment number 003.

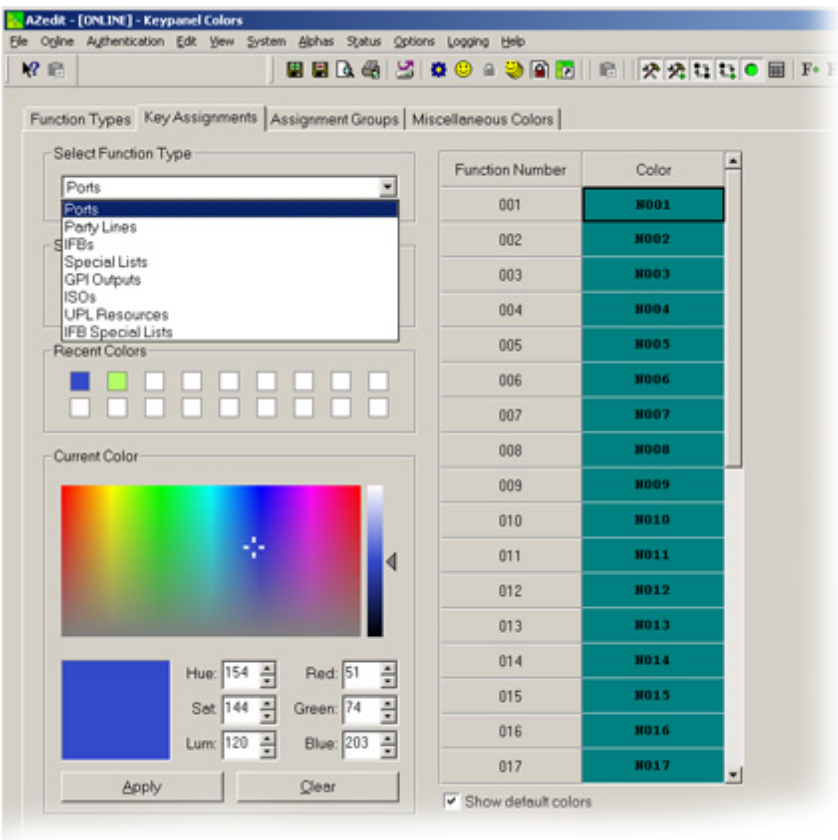


FIGURE 18. Key Assignments Page

Select Function Type Drop Down Menu

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

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

Function Number Column

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

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

Color Column

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

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

Assignment Groups Page

The **Assignment Groups** page, shown in Figure 19, is used to change colors of the members of the different assignment groups

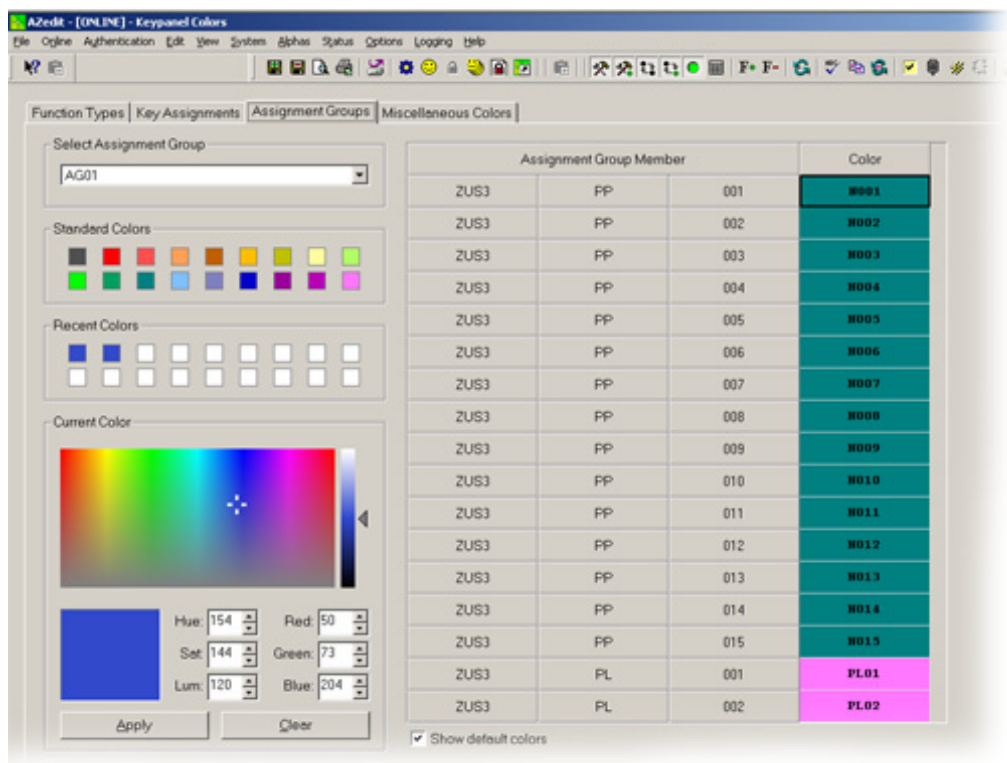


FIGURE 19. Assignments Groups Page

Select Assignment Group Drop Down Menu

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

Assignment Group Member Column

The **Assignment Group Member** column displays the members of the assignment group you select from the Assignment Group drop down menu. For more information, see “Select Assignment Group Drop Down Menu” on page 59.

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 20, is used to change the colors of the talk and listen indicators seen on the RP-1000 series keypanel when talk and/or listen is activated.

For more information on Talk and Listen indicators, “Talk/Listen Indicator” on page 40.

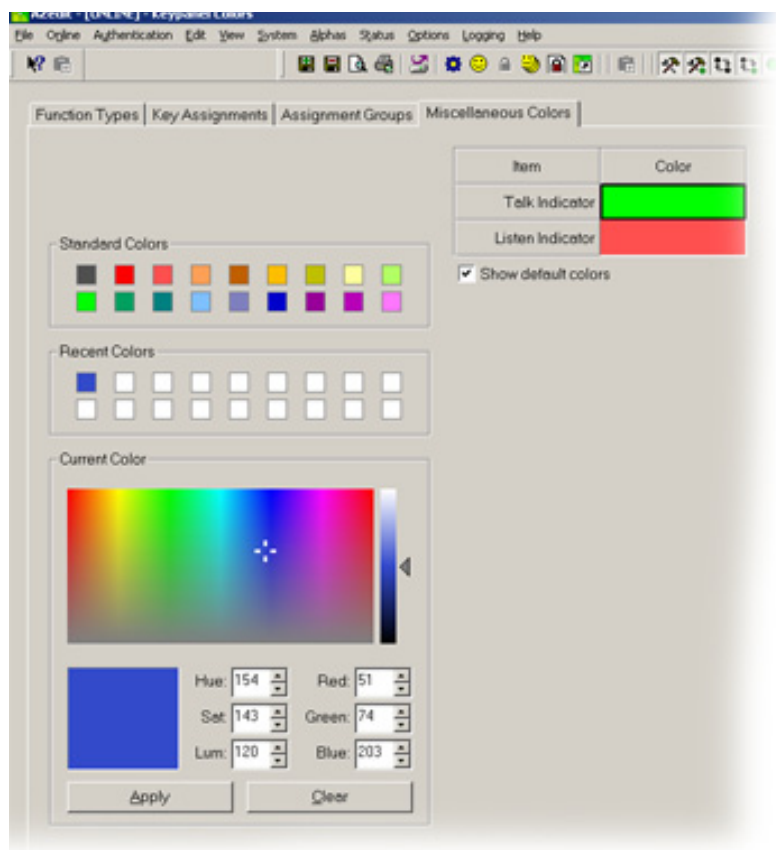


FIGURE 20. Miscellaneous Colors Page

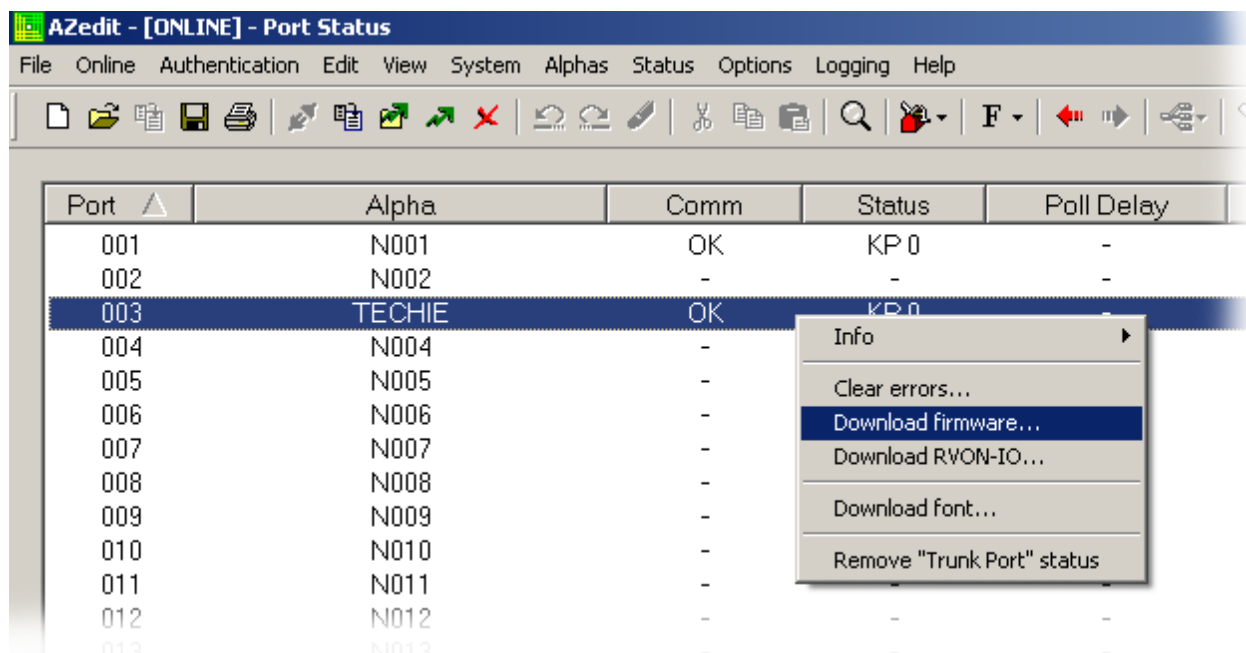
Firmware Download

NOTE: The instructions provided below are shown using the RP-1000, 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:

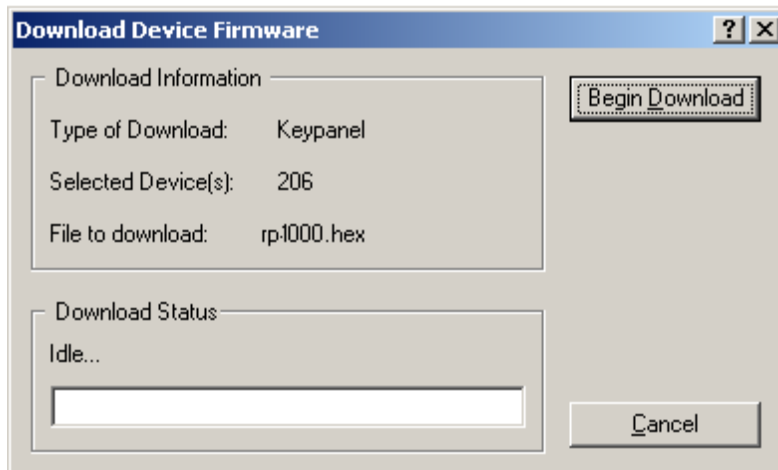
1. Open **AZedit**.
2. From the Status menu, select **Port**.
The Port Status window appears.
3. Find the **port number** where the RP-1000 is assigned.



4. Highlight the **Port** (keypanel) to be updated.
You may select more than one (1) at a time by holding CTRL key down while you select.
5. Right-click the **highlighted selections**.
A popup menu appears.
6. Select **Download Firmware**.
The Firmware Download window appears.

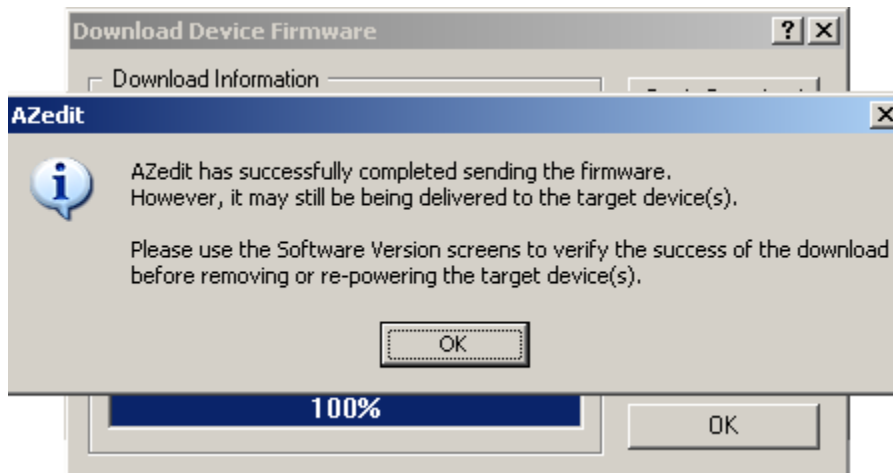
7. Using the browse button, browse to the **file to be downloaded**.
8. Click **Open**.

The Download Device Firmware window appears.



9. Click **Begin Download**.

The download begins.



10. Click **OK**.

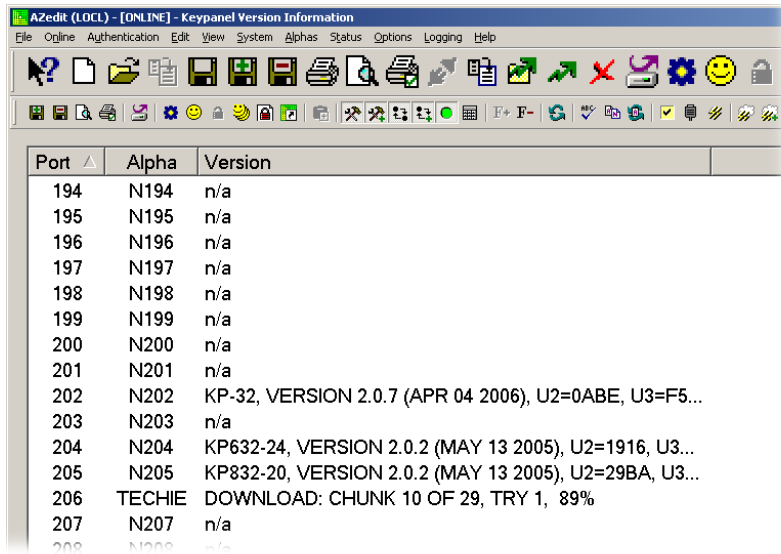
The RP-1000 firmware download finishes.

NOTE:

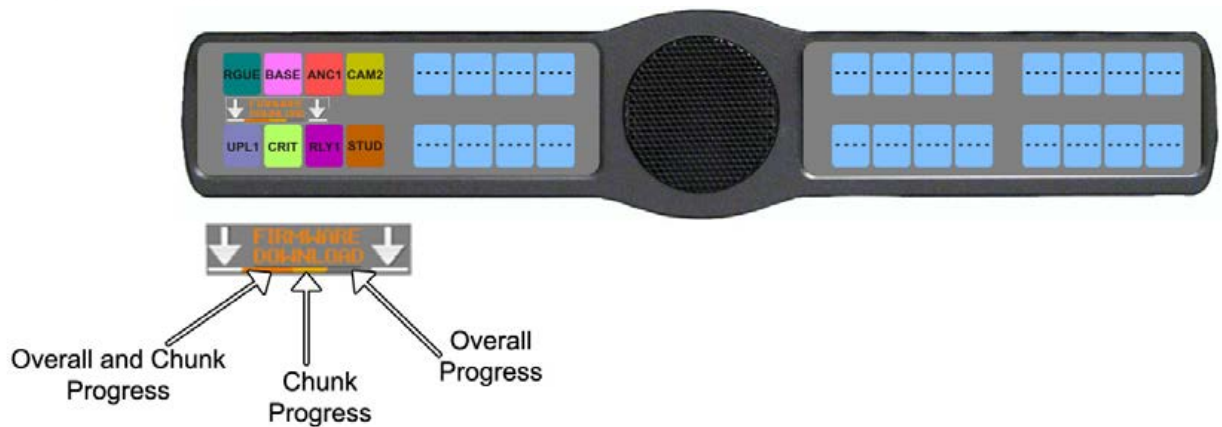
- This can take up to 30 minutes to complete. Use the Keypanel Version Information window to follow the progress of the download. Also, the keypanel displays Firmware Download on the display window until the download is complete.
- The RP-1000 resets itself once the firmware download is complete.

AZedit (LOCL) - [ONLINE] - Keypanel Version Information

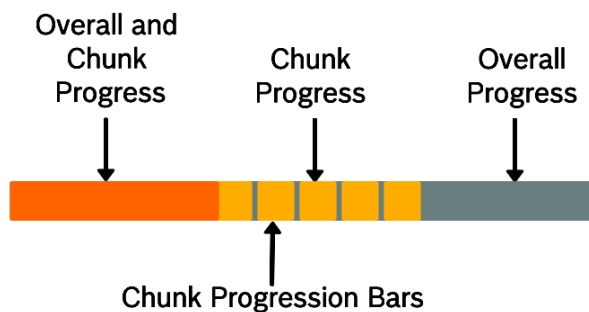
File Online Authentication Edit View System Alphas Status Options Logging Help



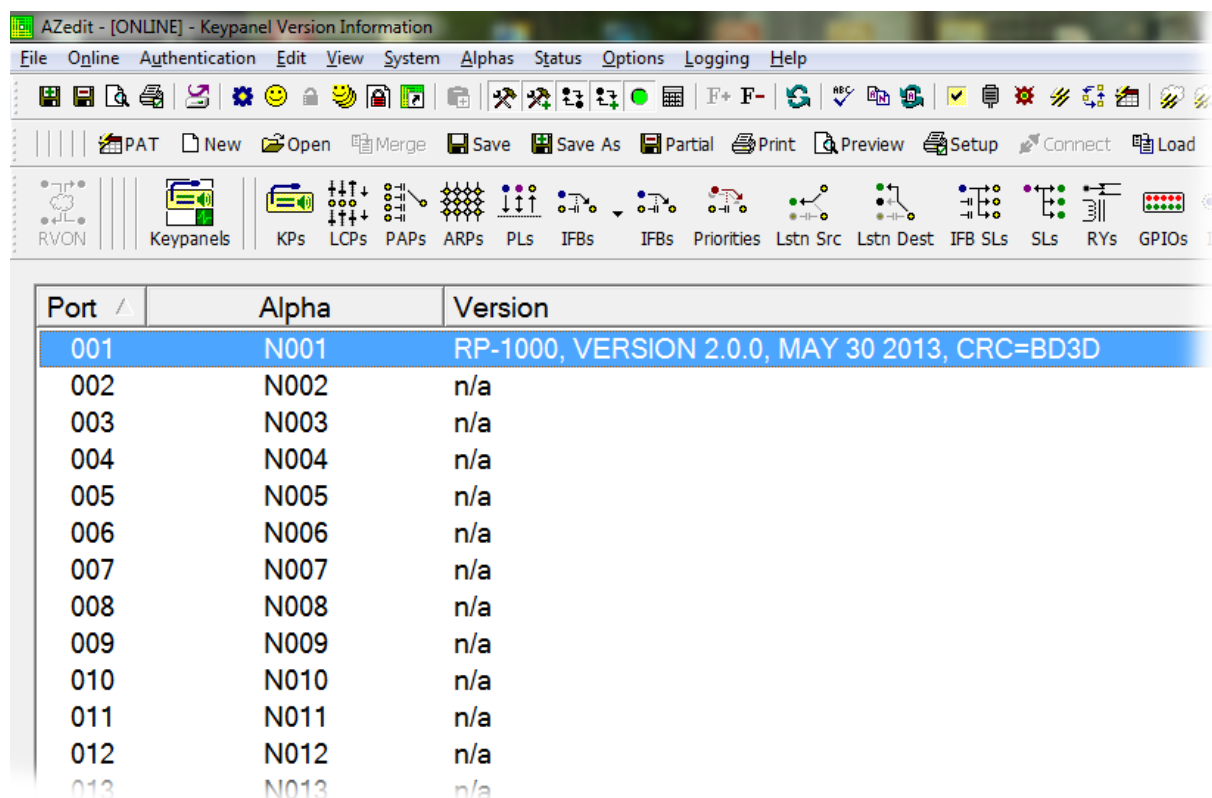
Port	Alpha	Version
194	N194	n/a
195	N195	n/a
196	N196	n/a
197	N197	n/a
198	N198	n/a
199	N199	n/a
200	N200	n/a
201	N201	n/a
202	N202	KP-32, VERSION 2.0.7 (APR 04 2006), U2=0ABE, U3=F5...
203	N203	n/a
204	N204	KP632-24, VERSION 2.0.2 (MAY 13 2005), U2=1916, U3...
205	N205	KP832-20, VERSION 2.0.2 (MAY 13 2005), U2=29BA, U3...
206	TECHIE	DOWNLOAD: CHUNK 10 OF 29, TRY 1, 89%
207	N207	n/a
208	N208	n/a



NOTE: While the firmware is downloading, chunk progress is displayed by incremental blocks.



11. Verify the **version upgrade** in the Keypanel Version Information window is correct.



Download Firmware Using the BLR Function

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

- Option 1.** If your keypanel is not mounted in a rack, run the boot loader from the keypanel, see “Run The Boot Loader” on page 64.
- 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 Downloading of a New Boot Loader from the Keypanel (v 2.0.0 and later for RP-1000, v1.1.0 for DKP 16 CLD)” on page 68 (v 1.1.0 and later).

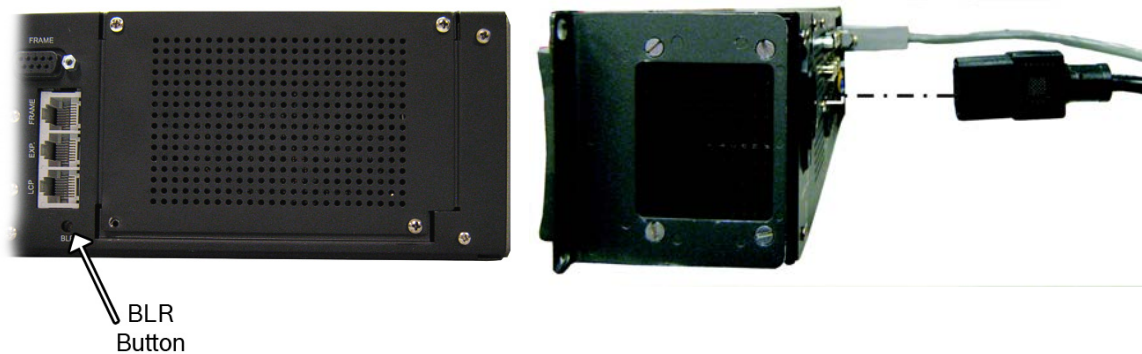
NOTE: The instructions provided below are shown using the RP-1000, but are applicable for all CLD family keypanels.

Run The Boot Loader

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

1. Power **off** the keypanel.
2. Verify the **RP-1000** is powered off, but still connected to the FRAME.

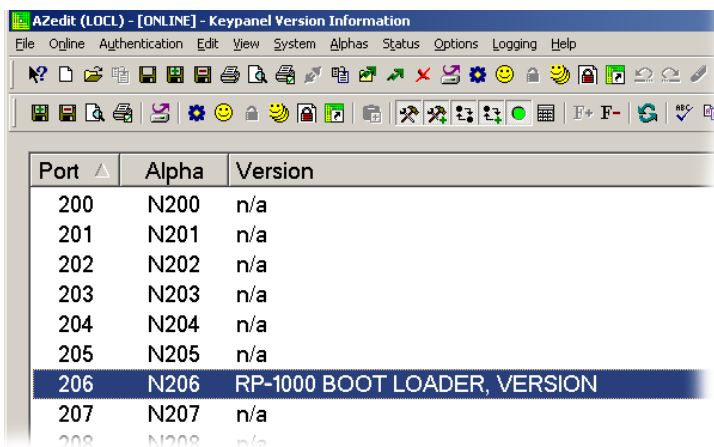
3. Using a screwdriver, press the **BLR button** located on the back of the keypanel.



4. While the BLR button is pressed, connect the **power cord** to the keypanel.
RP-1000 - Boot Loader Waiting for download... appears in the display window.



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.



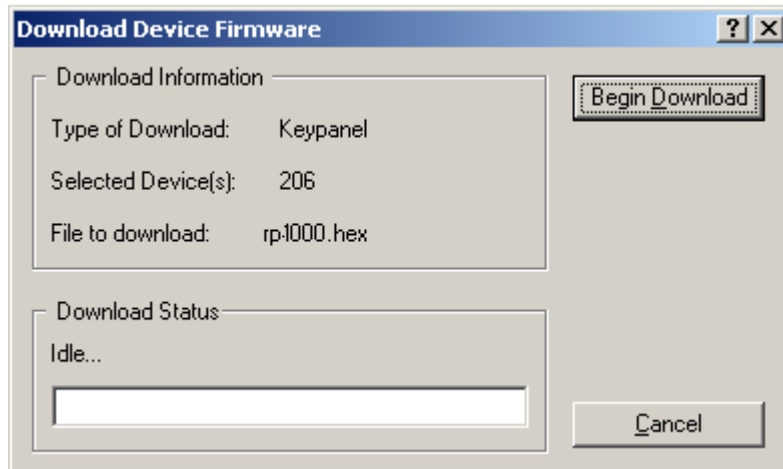
7. From the Keypanel Version Information window, find and select the specified **RP-1000**.

NOTE: Notice the Version column is showing RP-1000 Bootloader Version X.X.X is shown.

8. Right-click on the **RP-1000**.
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., RP1000.hex).

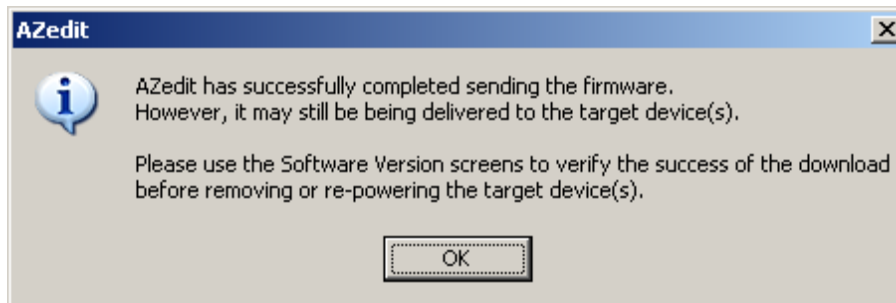
11. Click **Open**.

The Download Device Firmware window appears.



12. Click **Begin Download**.

The Download begins and a popup message appears.



13. Click **OK**.

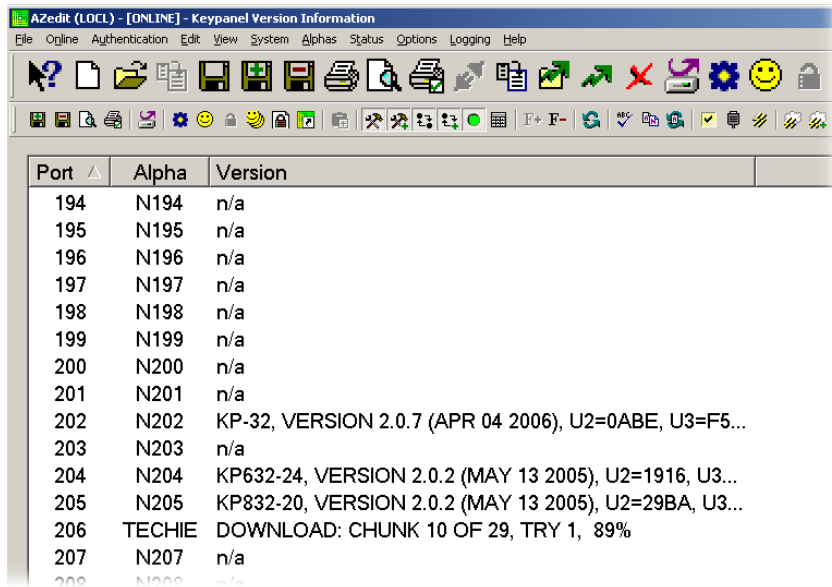
The RP-1000 firmware download finishes.

NOTE: This 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 RP-1000 display window until the download is complete.

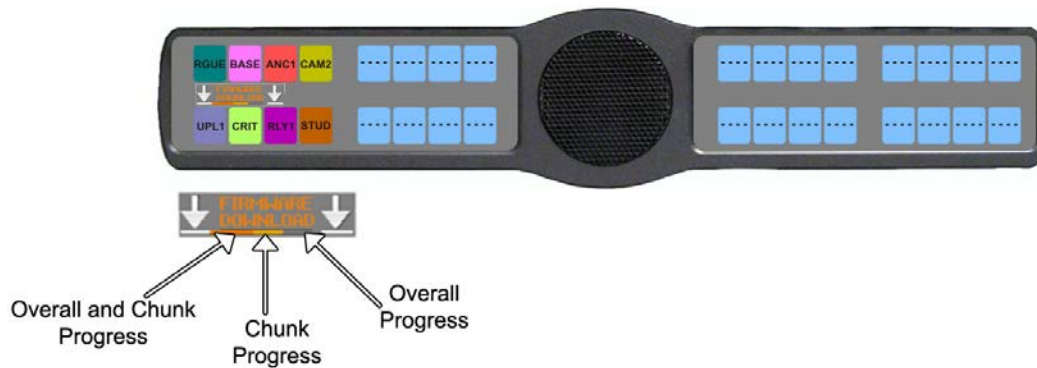
IMPORTANT: If you are downloading a new boot loader image, then when Chunk 1 is at 90%, press and hold the BLR button until the displays shows *Chunk 2*. Once *Chunk 2* appears, release the BLR button. Pressing the BLR button during this time triggers the download to continue.

AZedit (LOCL) - [ONLINE] - Keypanel Version Information

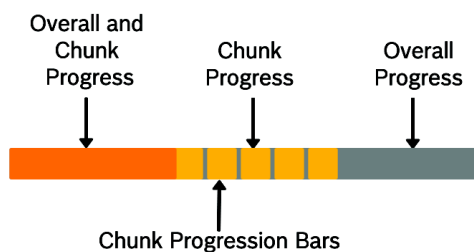
File Online Authentication Edit View System Alphas Status Options Logging Help



Port	Alpha	Version
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	KP-32, VERSION 2.0.7 (APR 04 2006), U2=0ABE, U3=F5...
203	N203	n/a
204	N204	KP632-24, VERSION 2.0.2 (MAY 13 2005), U2=1916, U3...
205	N205	KP832-20, VERSION 2.0.2 (MAY 13 2005), U2=29BA, U3...
206	TECHIE	DOWNLOAD: CHUNK 10 OF 29, TRY 1, 89%
207	N207	n/a
208	N208	n/a



NOTE: While the firmware is downloading, chunk progress is displayed by incremental blocks.



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



Enable Downloading of a New Boot Loader from the Keypanel (v 2.0.0 and later for RP-1000, v1.1.0 for DKP 16 CLD)

By enabling boot loader upgrades from the keypanel, updating the boot loader 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 **Main Vol** and **Aux Vol** encoders at the same time, press the **MENU** button.
The main menu appears.
2. Using the arrow keys, select **Service**.
3. Press **SEL**.
The Service menu options appear.
4. Using the arrow keys, select **Boot Code**.
5. Press **SEL**.
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 window.

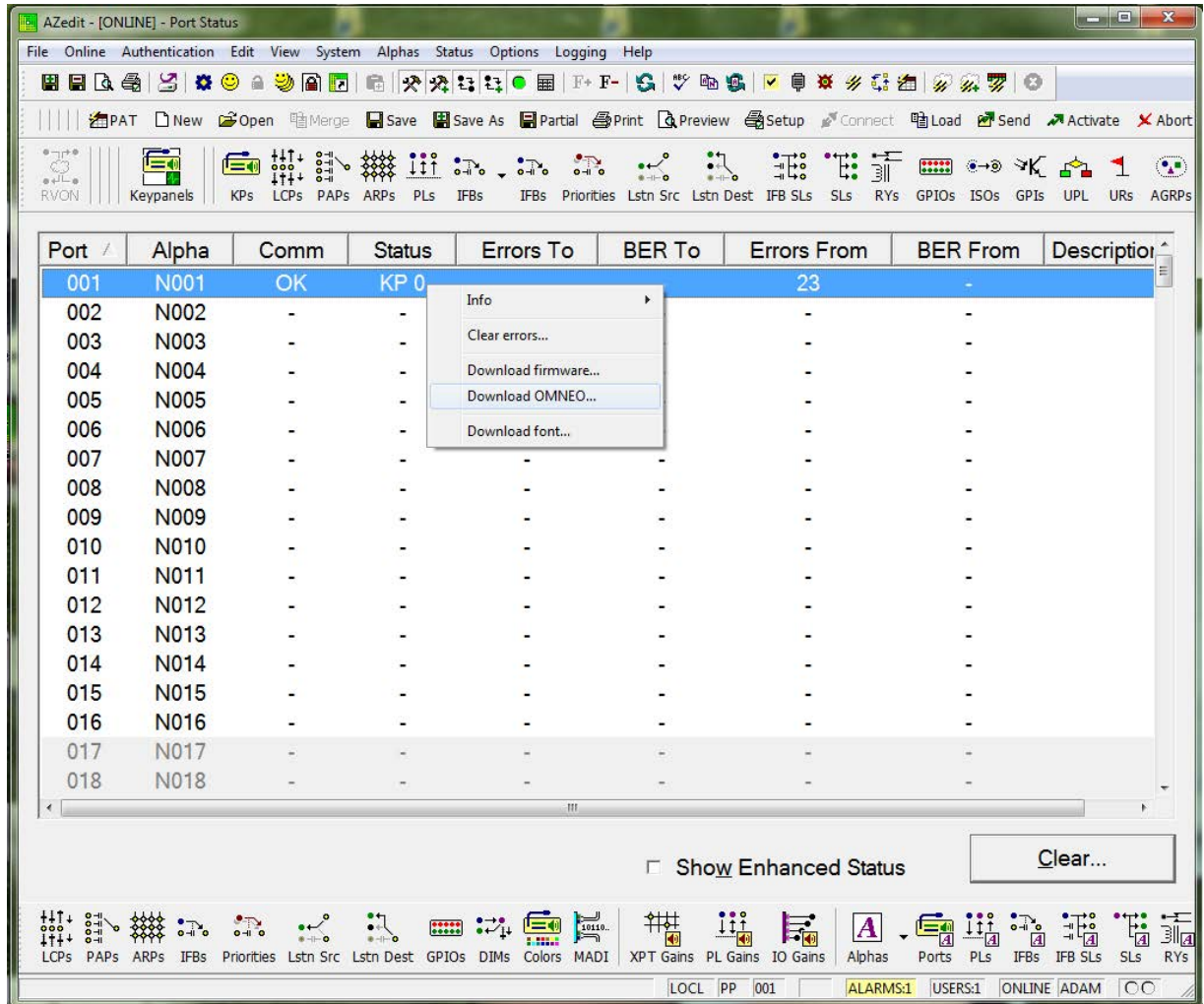
6. Using the arrow keys, select **Allow Download**.
7. Press **SEL**.
The CLD family keypanel allows firmware downloads.

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

Upgrade the OKI-2 Board Firmware

To upgrade the OKI-2 board firmware, do the following:

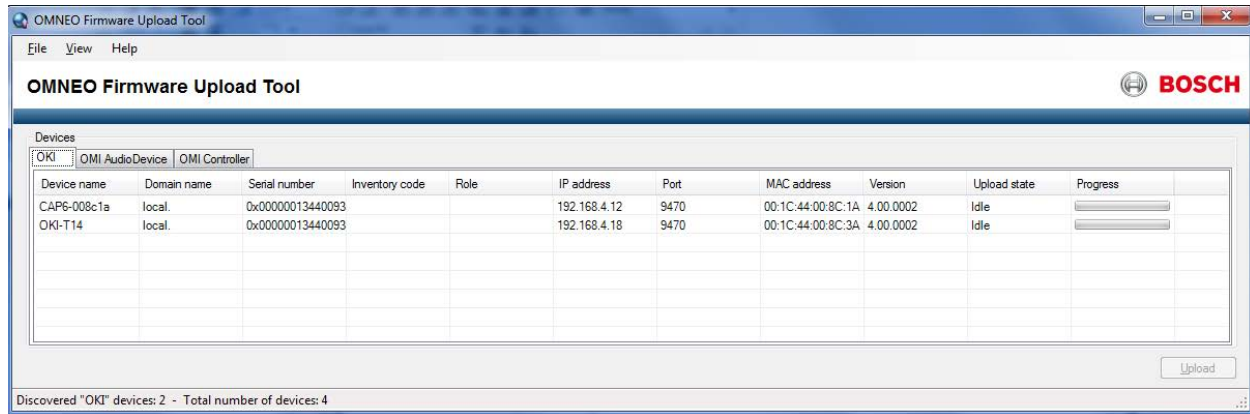
1. From the Status menu, select **Port**.
The Port Status window appears.
2. Right-click the **port** where the OKI-2 RP-1000 Classic keypanel is assigned.
A popup menu appears.



3. From the popup menu, select **Download OMNEO**.
A User Access Control warning appears. If this is the first time running the Firmware Upload Tool, do the following:
 - a. In the Browse for Folder window, navigate to and select the **Firmware Upload Tool** folder.
 - b. Click **OK**.
The Firmware Upload Tool appears.

4. Click **OK**.

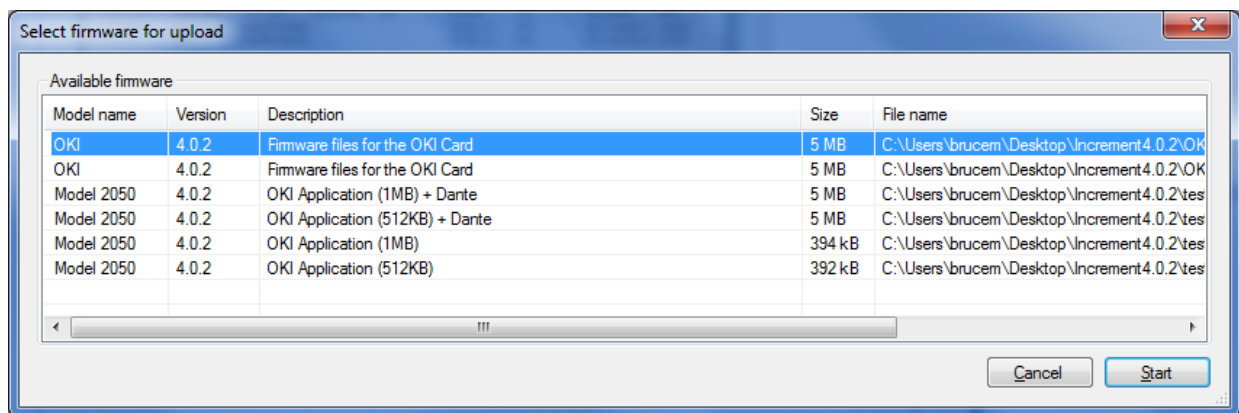
The Firmware Upload Tool appears.



5. Select the **OKI-2 Device** you want to upload the new firmware.

6. Click **Upload**.

The Select firm ware for upload window appears.



7. Select the **firmware version** you want.

8. Click **Start**.

You can watch the progress of the upload in the Progress column.

RP-1000 Menu System

NOTE: A menu system quick reference chart is located at “Keypanel Menu Quick Reference” on page 177.

Main Menu Access

The **Main Menu** is the top most level of the menu structure.

Available selections for this menu are:

Audio Options

Display

Key Assign

Key Options

OMNEO Offers (Only when OKI-2 option card is present)

RVON Offers (Only when RVON-2 option card is present)

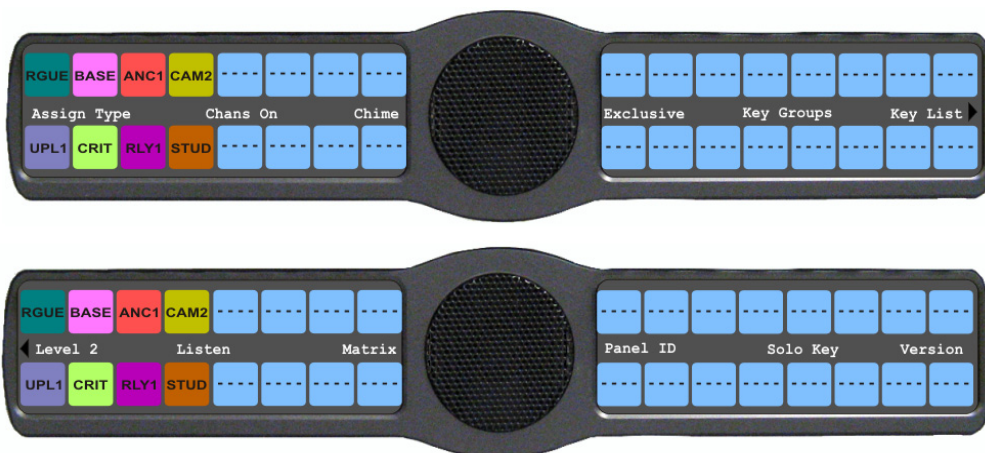
Save Config

Service

To access the main menu structure, do the following:

1. On the keypad, press **MENU**.

The Information menu structure displays across the middle of the display window.



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

Menu System, Audio Options

Available options for this menu are:

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

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

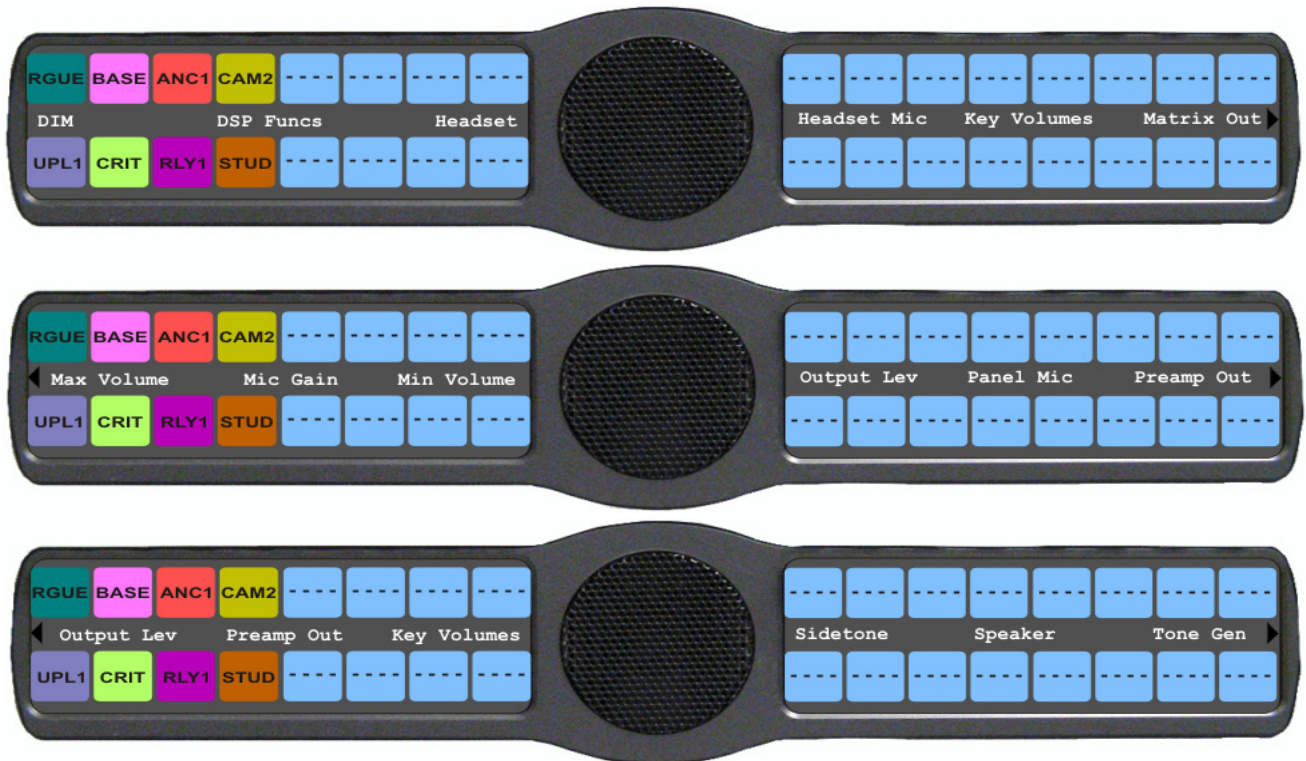


FIGURE 21. Main Audio Options Menu

Audio Options Menu, Dim

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

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

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

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

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

4. Press **SEL**.
The Dim Amount: scroll box appears.



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

Audio Options Menu, DSP Funcs

DSP Funcs access the digital signal processing options for the keypanel.

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

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

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



Equalization

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

By default, *None* is configured.

There is no preset equalization configured.

Available selections for this menu are: *None, Preset #1 (extreme low pass), Preset #2 (low pass), Preset #3 (voice band), Preset #4 (narrow high pass), and Preset #5 (high pass).*

The presets are as follows:

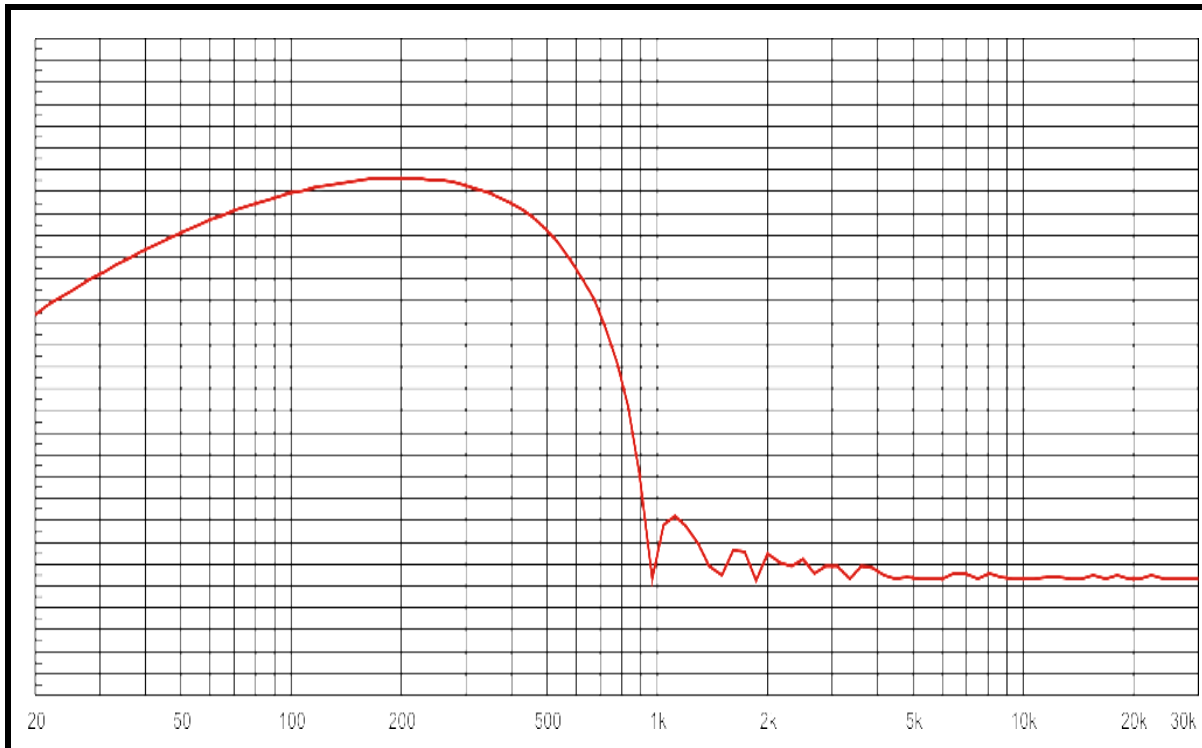


FIGURE 22. Frequency Response - Preset 1 (20Hz to 300Hz) Extreme Low Pass

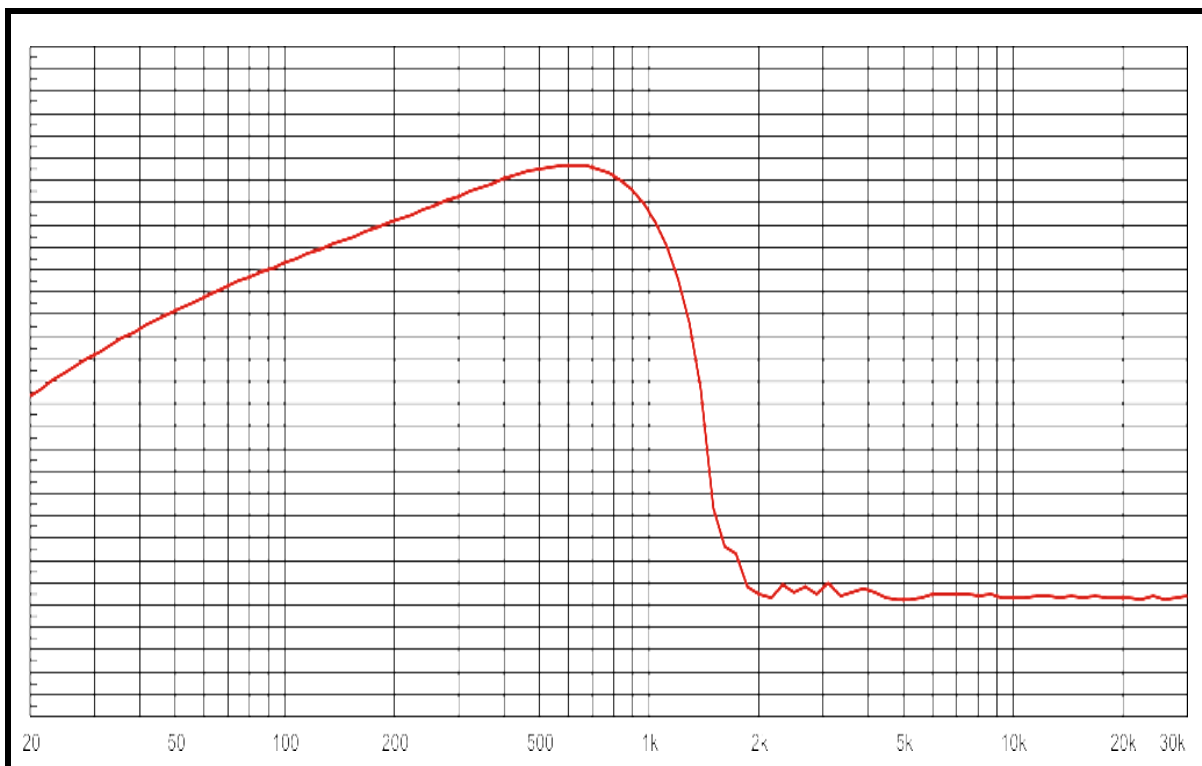


FIGURE 23. Frequency Response - Preset 2 (300Hz to 900Hz) Low Pass

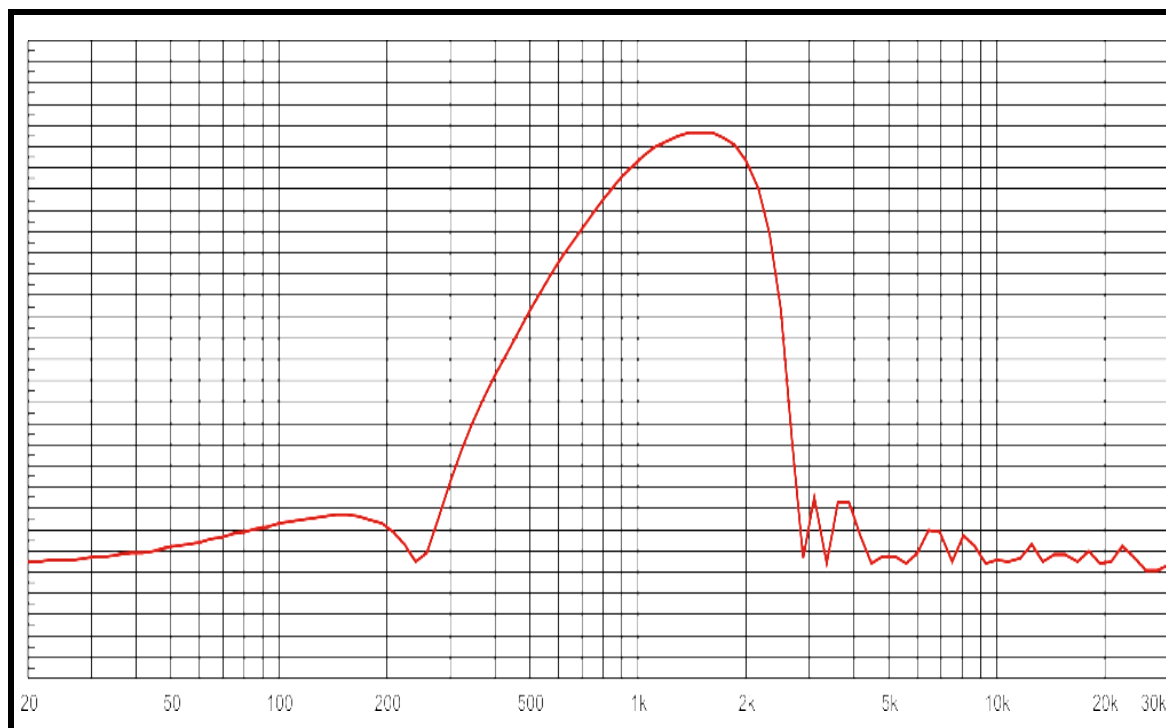


FIGURE 24. Frequency Response - Preset 3 (900Hz to 2100Hz) Voice Band

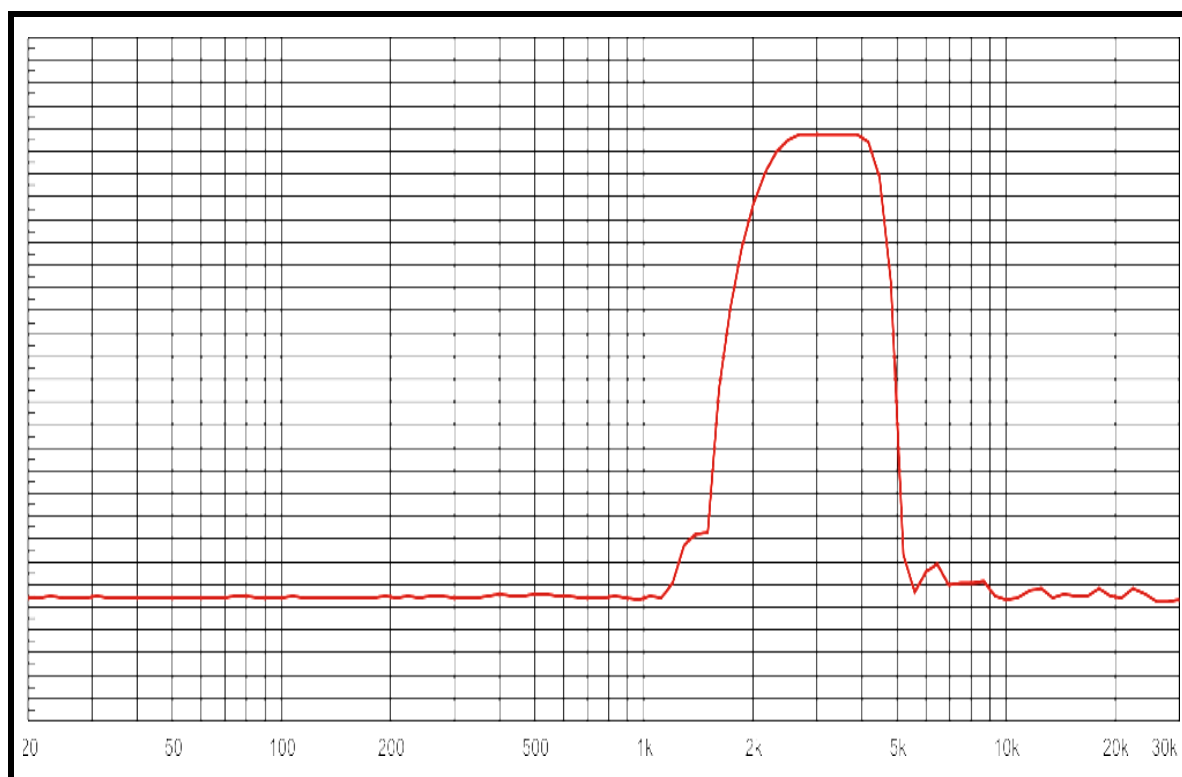


FIGURE 25. Frequency Response - Preset 4 (2100Hz to 4500Hz) Narrow High Pass

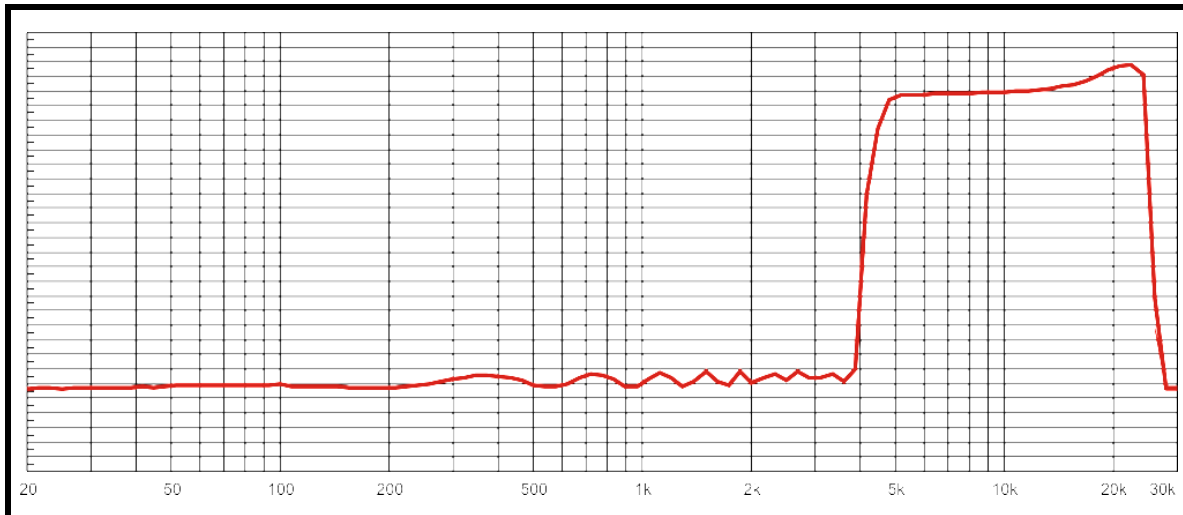


FIGURE 26. Frequency Response - Preset 5 (4500Hz to 24,000Hz) High Pass

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

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

1. Starting at Audio Options|DSP Funcs menu, select **Equalization**.
2. Press **SEL**.
Front Speaker, Rear Left, and Rear Right appear in the display window.




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

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

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



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

A blue arrow  appears next to the selected option

Filters

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

By default, filters is set to *None*.

Available options for this menu are:

Aux 1 - 6

(Aux 1 - 3 for the DKP-16)

This feature is only available when the GPI option card is installed.

Headset Mic

Panel Mic

Rear Headset Mic

This feature is only available when the GPI option card is installed.

Rear Panel Mic

This feature is only available when the GPI option card is installed.

OMNEO Ch1

This feature is only available when the OKI-2 option board is installed.

OMNEO Ch2

This feature is only available when the OKI-2 option board is installed.

RVON Ch1

This feature is only available when the RVON-2 option card is installed.

RVON Ch2

This feature is only available when the RVON-2 option card is installed.

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

NOTE: The DKP 16 CLD supports only three (3) AUX channels

1. Starting at the **Audio Options|DSP Funcs** menu, select **Filters**.
2. Press **SEL**.

Aux In 1, Aux In 2, Aux In 3, Aux In 4, Aux In 5, Aux In 6, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, and RVON Ch2 appear in the display window.



3. Using the arrow keys, select **Aux In 1, Aux In 2, Aux In 3, Aux In 4, Aux In 5, Aux In 6, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, or RVON Ch2**.
4. Press **SEL**.
None and 9600Hz appears in the display window.
5. Using the arrow keys, select either **None** or **9600Hz** baud.



6. Press **SEL**.

A blue arrow appears next to the selected option

Gating

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

Available options for this menu are:

Aux 1 - 6
(*Aux 1 - 3 for*
the DKP-16)

This feature is only available when the GPI option card is installed.

Headset Mic

Matrix

Panel Mic

Rear Headset Mic

This feature is only available when the GPI option card is installed.

Rear Panel Mic

This feature is only available when the GPI option card is installed.

OMNEO Ch1

This feature is only available when the OKI-2 option board is installed.

OMNEO Ch2

This feature is only available when the OKI-2 option board is installed.

RVON Ch1

This feature is only available when the RVON-2 option card is installed.

RVON Ch2

This feature is only available when the RVON-2 option card is installed.

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

By default, the gating threshold is set to *Disabled*.

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

<i>Aux In 1-6</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>OMNEO Ch1</i>	<i>8dBu</i>
<i>OMNEO Ch2</i>	<i>8dBu</i>
<i>RVON Ch1</i>	<i>8dBu</i>
<i>RVON Ch2</i>	<i>8dBu</i>

To **configure gating on the RP-1000 keypanel**, do the following:

NOTE: The DKP 16 CLD supports only three (3) AUX channels

1. Starting at the Audio Options|DSP Funcs menu, select **Gating**.
2. Press **SEL**.

Aux In 1, Aux In 2, Aux In 3, Aux In 4, Aux In 5, Aux In 6, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, and RVON Ch2 appear in the display window.




3. Using the arrow keys, select **Aux In 1, Aux In 2, Aux In 3, Aux In 4, Aux In 5, Aux In 6, Front Hdst, Front Mic, Matrix In, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, or RVON Ch2**.
4. Press **SEL**.

The Threshold scroll box appears in the display window.



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

A blue arrow  appears next to the selected option

Metering

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

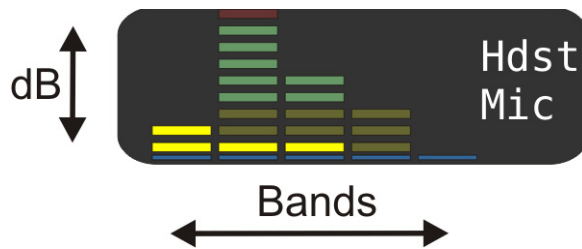


FIGURE 27. Metering Explanation

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

Available options for this menu are:

<i>Band 1</i>	<i>100Hz to 400Hz</i>
<i>Band 2</i>	<i>400Hz to 800Hz</i>
<i>Band 3</i>	<i>800Hz to 1.6KHz</i>
<i>Band 4</i>	<i>1.6KHz to 3.2KHz</i>
<i>Band 5</i>	<i>3.2KHz to 15KHz</i>



FIGURE 28. Metering Bands display

By default, *None* is configured for metering.

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

You can enable metering on:

Aux 1 - 6

(Aux 1 - 3 for the DKP-16)

This feature is only available when the GPI option card is installed.

Front Headset

Front Mic

Matrix In

Rear Headset

This feature is only available when the GPI option card is installed.

Rear Mic

This feature is only available when the GPI option card is installed.

OMNEO Ch1

This feature is only available when the OKI-2 option board is installed.

OMNEO Ch2

This feature is only available when the OKI-2 option board is installed.

RVON Ch1

This feature is only available when the RVON-2 option card is installed.

RVON Ch2

This feature is only available when the RVON-2 option card is installed.

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


NOTE: The DKP 16 CLD supports only three (3) AUX channels

1. Starting at the Audio Options|DSP Funcs menu, select **Metering**.
2. Press **SEL**.

Aux In 1, Aux In 2, Aux In 3, Aux In 4, Aux In 5, Aux In 6, Matrix In, None, Front Hdst, Front Mic, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, or RVON Ch2 appear in the display window.



3. Using the arrow keys, select **Aux In 1, Aux In 2, Aux In 3, Aux In 4, Aux In 5, Aux In 6, Matrix In, None, Front Hdst, Front Mic, Rear Hdst, Rear Mic, OMNEO Ch1, OMNEO Ch2, RVON Ch1, or RVON Ch2**.
4. Press **SEL**.

A blue arrow  appears next to the selected option.

Mixing

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

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

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

Available options for this menu are:

Aux 1 - 6
(*Aux 1 - 3 for*
the DKP-16)

This feature is only available when the GPI option card is installed.

Headset Mic

Matrix

Panel Mic

OMNEO Ch1

This feature is only available when the OKI-2 option board is installed.

OMNEO Ch2

This feature is only available when the OKI-2 option board is installed.

Rear Headset Mic

This feature is only available when GPI option card is installed.

Rear Panel Mic

This feature is only available when GPI option card is installed.

RVON Ch1 IN

This feature is only available when the RVON-2 option card is installed.

RVON Ch2 IN

This feature is only available when the RVON-2 option card is installed.

TABLE 6. Resources Table

SOURCE	Front Pane Mic	Matrix Audio In	Front Headset Mic	Rear Headset Mic	Rear Panel Mic	Aux IN 1	Aux IN 2	Aux IN 3	Aux IN 4	Aux IN 5	Aux IN 6	Option Card^a Ch1 IN	Option Card^a Ch2 IN
DESTINATION													
Matrix OUT	X	X	X	X	X	X	X	X	X	X	X	X	X
Front Speakers	X	X	X	X	X	X	X	X	X	X	X	X	X
Front Headset Left	X	X	X	X	X	X	X	X	X	X	X	X	X
Front Headset Right	X	X	X	X	X	X	X	X	X	X	X	X	X
Rear Headset Left	X	X	X	X	X	X	X	X	X	X	X	X	X
Rear Headset Right	X	X	X	X	X	X	X	X	X	X	X	X	X
Rear Speaker Left	X	X	X	X	X	X	X	X	X	X	X	X	X
Rear Speaker Right	X	X	X	X	X	X	X	X	X	X	X	X	X
Mic OUT	X	X	X	X	X	X	X	X	X	X	X	X	X
Option Card^a Ch1 OUT	X	X	X	X	X	X	X	X	X	X	X	X	X
Option Card^a Ch2 OUT	X	X	X	X	X	X	X	X	X	X	X	X	X

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

NOTE:

- If all resources are being used, the Rear Panel Mic is not available.
- Not all sources can be mixed to all destinations. Mic inputs cannot be mixed to matrix out or pre-amp out, and matrix input (including option card channel 1) cannot be mixed to speaker or headset outputs using this menu. To mix mic inputs to the matrix output, use the Panel Mic and Headset Mic menus. To mix matrix in to speakers and headsets, use the Headset Spkr or Speaker menu.

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

NOTE: The DKP 16 CLD supports only three (3) AUX channels

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



3. Using the arrow keys, select the **Output** you want to mix to.
4. Press **SEL**.
Aux In 1, Aux In 2, Aux In 3, Aux In 4, Aux In 5, Aux In 6, Front Hdst, Front Mic, Matrix In, OMNEO Ch1, OMNEO Ch2, Rear Hdst, Rear Mic, RVON Ch1, and RVON Ch2 appear in the display window.



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

Audio Options Menu, Headset Mic

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

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

NOTE: When a GPI option card is installed, Front and Rear options are displayed for the RP-1000 series; (Left and Right are displayed for the DKP 16 CLD).

Available selections for the auto-mute menu are:

Disabled

Enabled

Available selections for the mode menu are:

Disabled

Enabled

Switched (default)

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

Available selections for the type menu are:

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

Dynamic

Electret

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

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

NOTE: When using a DKP 16 CLD, Left and Right appear, instead of Front and Rear.



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

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

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



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

4. Press **SEL**.
Disabled, Enabled, and Switched appear.



5. Using the arrow keys, select the **mode**.
6. Press **SEL**.
A blue arrow ► appears next to the selected option.

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

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



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



5. Using the arrow keys, select the **Auto-Detect, Dynamic, or Electret**.
6. Press **SEL**.
A blue arrow ► appears next to the selected option.

Audio Options Menu, Headset Spkr

The **Headset Spkr** menu option is used to control the headset detection functions: auto-transfer, which is used to detect if a headset is present and mode, which determines when and where audio is heard. Also from this menu, the Main shaft encoder is defined how to control the front and rear channels define how the Main shaft encoder controls the volume for the front and rear channels.

NOTE: When a GPI option card is installed, Front and Rear options are displayed for the RP-1000 series; (Left and Right are displayed for the DKP 16 CLD).

Available selections for the Auto-transfer menu are:

Disabled

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

Available selections for the Mode menu are:

Both

Left Chan

Right Chan

Available selections for the different modes are:

Always On (default)

Disabled

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

NOTE: When using the DKP 16 CLD, *Left* and *Right* appear as options, instead of *Front* and *Rear*.

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

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



2. Press **SEL**.
Auto-Transfer and Mode appear.
3. Using the arrow keys, select **Mode**.
4. Press **SEL**.
Both, Left Chan, and Right Chan appear.
5. Using the arrow keys, select the **mode** you want.

6. Press **SEL**.
Always On, Disabled, and Switched appear.



7. Using the arrow keys, select the **mode**.
8. Press **SEL**.
A blue arrow ► appears next to the selected option.

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

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



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



3. Using the arrow keys, select **Auto-Transfer**.
4. Press **SEL**.
Disabled and Enabled appear.
5. Using the arrow keys, select **Disabled** or **Enabled**.
6. Press **SEL**.
A blue arrow ► appears next to the selected option.

Volume Controls

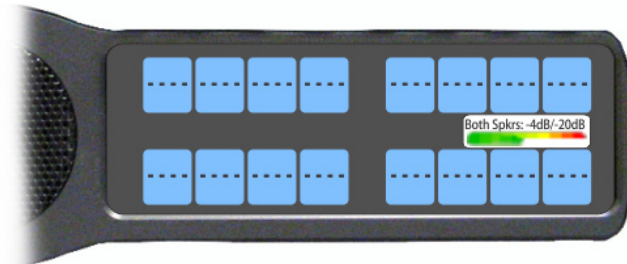
Available selections for the Volume Control menu are:

NOTE: For more information on Ganged Volume configuration, see “Service Menu, Ganged Vols” on page 141.

Ganged The volume controls are tied to each other, only one knob is turned to adjust volume levels.

Individual The volume controls are separate to each other.

NOTE: If you gang speakers and/or headset volumes, you see a split volume bar. The front speaker or headset is the top portion of the bar, while the bottom portion of the bar is the rear speaker or headset volume.



To define how the Main shaft encoder controls the volume for the front and rear channels, do the following:


- Starting from the Audio Options|Headset Spkr menu, select **Volume Control**.



- Press **SEL**.
Ganged and Individual appear.



- Using the arrow keys, select either **Ganged** or **Individual**.
- Press **SEL**.

A blue arrow  appears next to the selected option.

Audio Options Menu, Key Volumes

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

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

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

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

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



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



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

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

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



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

4. Press **SEL**.
Volumes Reset appears in the display window.



Audio Options Menu, LCP 16 CLD

The **LCP 16 CLD Level Control Panel** is connected to RP-1000 Series keypad. The LCP 16 CLD panel, when connected to a RP-1000 keypad is only used to adjust input and output volumes. You may connect only one (1) LCP panel to a RP-1000 keypad.

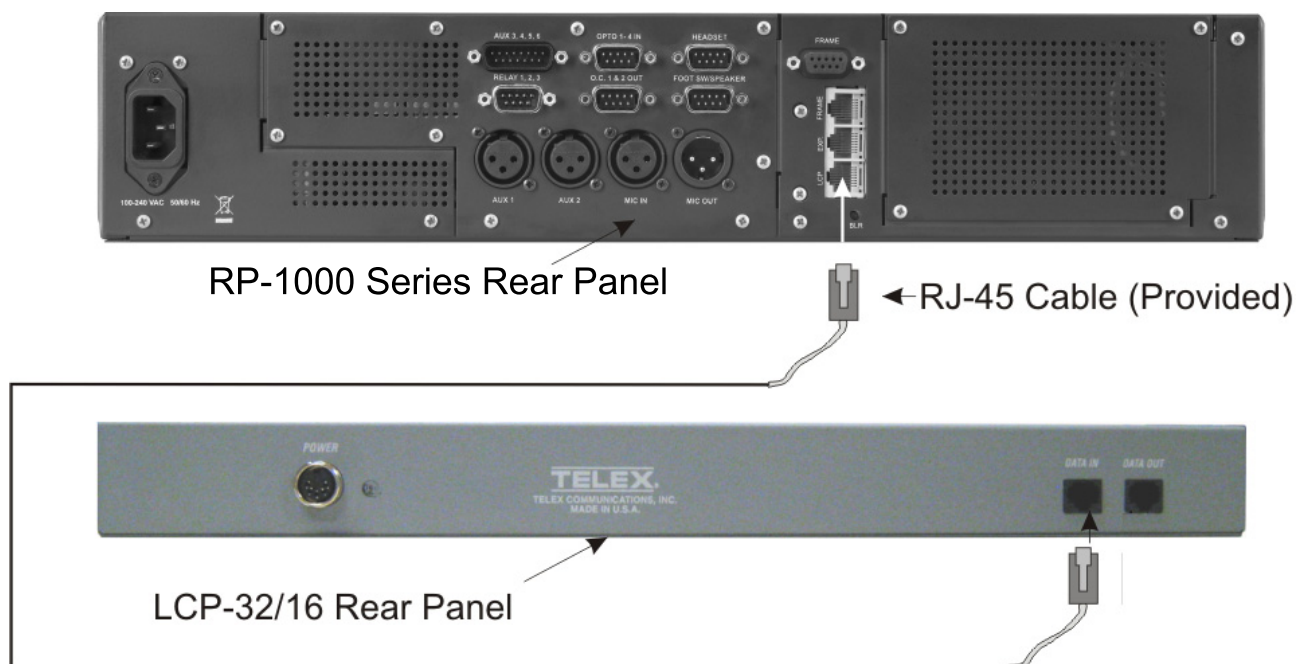


FIGURE 29. Hardware Setup for RP-1000 and LCP 16 CLD

CAUTION: Do not connect a RP-1000 power supply to the LCP 16 CLD. Doing so could cause damage to the unit.

NOTE: The LCP 16 CLD menu option in both the Audio Options and Display menus is always present whether an LCP 16 CLD unit is connected to the RP-1000 series unit or not.

To **configure an LCP 16 CLD via the RP-1000 Series**, do the following:

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

Audio Options Menu, Matrix Out

Matrix Out allows the user to select between Normal or Hot Mic. In the Normal setting, audio from the selected active mic (based on the mic select feature, see “Audio Options Menu, Panel Mic” on page 96) goes out to the Matrix when any talk key is latched. In the Hot Mic setting, audio from the mic goes out to the Matrix without regard to the talk key state.


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

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

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



2. Press **SEL**.

A blue arrow  appears next to the selected option.

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



Audio Options Menu, Max Volume

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

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

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

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



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

Audio Options Menu, Mic Gain

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

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

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

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



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



3. Using the arrow keys, select the **source to configure mic gain**.
4. Press **SEL**.
The mic gain scroll box appears in the keypanel display window.



5. Using the arrow keys, scroll to the **mic gain level** (in dB) you want.

To enable/disable the mic gain level adjustment from the front mic select switch for the RP-1000, do the following:

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



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



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

Audio Options Menu, Min Volume

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

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

By default, Min Volume is set to *Mute*.

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

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



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

Audio Options Menu, Outp Level

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

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

By default, the Output Level is set to *8dB*.

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

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



- Press **SEL**.

Audio Options Menu, Panel Mic

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

Available options for this field are:

Disabled

Enabled

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

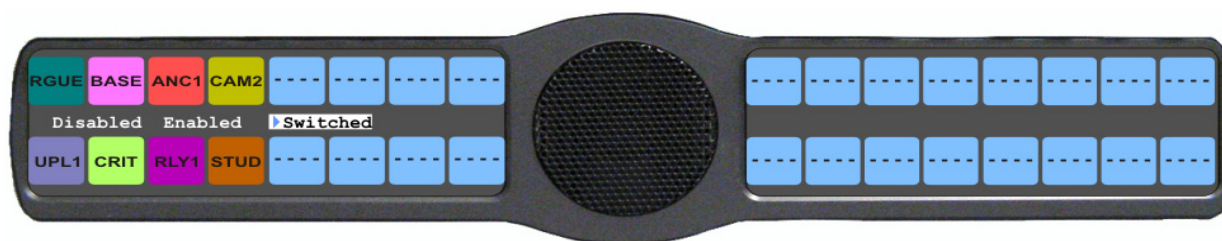
To **configure the Panel Mic**, do the following:

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




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

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



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

A blue arrow  appears next to the selected option.

Audio Options Menu, Preamp Out

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

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



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

Audio Options Menu, Sidetone

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

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

By default, the sidetone level is set at *-20dB*.

You can also configure the mode sidetone operates.

The available options for the sidetone mode are:

<i>Always On</i>	
<i>Disabled</i>	
<i>Switched (default)</i>	When set to switched, the user's voice is heard only when the talk key is activated.

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

1. Starting at the Audio Options|Sidetone menu, select **Level**.
2. Press **SEL**.

The Sidetone Level adjustment appears in the display window. By default, sidetone is set to -20dB.



3. Using the scroll arrow keys, adjust the **sidetone level**.

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

1. Starting at the Audio Options|Sidetone menu, select **Mode**.
2. Press **SEL**.

Always On, Disabled, and Switched appear in the display window. By default, Switched is selected.



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

Audio Options Menu, Speaker

The **Speaker** menu option is used to configure how the speaker operates. When a GPI option card is installed, Front and Rear options are displayed. Also from this menu, the Main shaft encoder is defined how to control the front and rear channels define how the Main shaft encoder controls the volume for the front and rear channels.

Available selections for the Auto-transfer menu are:

Disabled

Enabled

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

Available selections for the Mode menu are:

Front Speaker Options:

Always On

Disabled

Switched

Rear Speaker Options:

*Both**Left Chan**Right Chan*

Available selections for the different modes are:

*Always On**Disabled**Switched (default)*

When set to Switched, the state of the Speaker is controlled by the Mic Sel key.

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


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



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



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

A blue arrow  appears next to the selected option.

Volume Controls

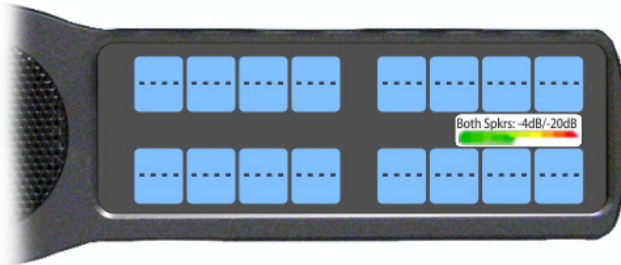
Available selections for the Volume Control menu are:

NOTE: For more information on Ganged Volume configuration, see “Service Menu, Ganged Vols” on page 141.

Ganged The volume controls are tied to each other, only one knob is turned to adjust volume levels.

Individual The volume controls are separate to each other.

NOTE: If you gang speakers and/or headset volumes, you see a split volume bar. The front speaker or headset is the top portion of the bar, while the bottom portion of the bar is the rear speaker or headset volume.



To define how the Main shaft encoder controls the volume for the front and rear channels, do the following:


- Starting from the Audio Options|Speaker menu, select **Volume Control**.



- Press **SEL**.
Ganged and Individual appear.



- Using the arrow keys, select either **Ganged** or **Individual**.
- Press **SEL**.

A blue arrow  appears next to the selected option.

Audio Options Menu, Tone Gen

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

Available selections for this menu are:

500Hz Tone (default)

1kHz Tone


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

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

- > Starting at the Audio Options|Tone Gen menu, select **Tone Off** to disable the tone generator.

OR

Using the arrow keys, select **Tone On** to enable the tone generator.

A blue arrow  appears next to the selected option.



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

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



2. Press **SEL**.




1kHz Tone and 500Hz Tone appears in the display window.



3. Using the arrow keys, select **1kHz Tone**.

OR

Using the arrow keys, select **500Hz Tone**.

A blue arrow  appears next to the selected option and the 500Hz  or 1kHz  icon displays in the display window if tone is enabled and the menu is cleared.

Menu System, Display

Use this menu to display information about the keypanel configuration.

The information available for display is as follows:

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

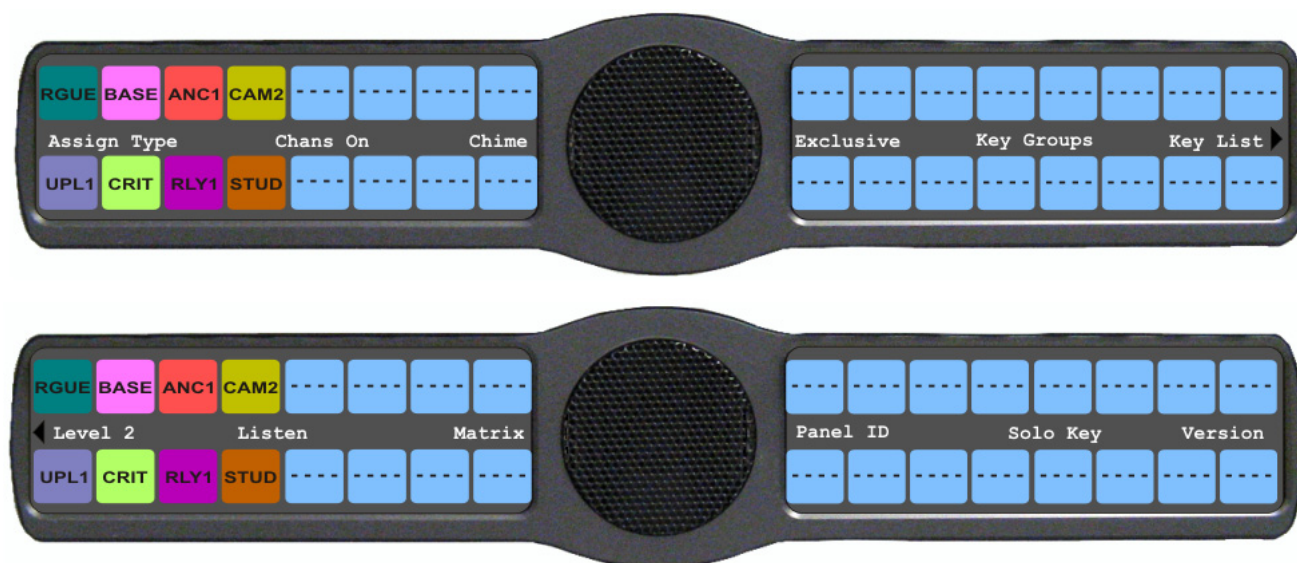


FIGURE 30. Main Display Menu

Display Menu, Assign Type

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

To **display the types of key assignments assigned to the RP-1000**, do the following:

1. On the RP-1000 keypad, press **MENU**.
The Information menu appears.
2. Verify **Display** is selected.
3. Press **SEL**.
The Display submenu appears.
4. Verify **Assign Type** is selected.
5. Press **SEL**.
The assignment types appear on the appropriate key displays.



Display Menu, Auto Dial

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

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

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



Display Menu, Chans On

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

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

1. Starting at the Display menu, select **Chans On**.
2. Press **SEL**.
The Chans On display appears showing the active channels.



Display Menu, Chime

Chime displays all keys with the chime option enabled on them in red. For more information, see “Key Options Menu, Chime” on page 119.

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

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



Display Menu, Exclusive

Exclusive displays all keys with the exclusive key assignment. For more information, see “Key Options Menu, Exclusive” on page 121.

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

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



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

Display Menu, Key Groups

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

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

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



Display Menu, Key List

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

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

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



Display Menu, LCP 16 CLD

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

To **display the LCP 16 CLD assignments on the RP-1000 Series**, do the following:

1. Starting at the Display menu, select **LCP 16 CLD**.
2. Press **SEL**.
The LCP 16 CLD assignments appear under the corresponding keys in the RP-1000 Series display panel.

NOTE: If an LCP 16 CLD is not detected by the RP-1000 Series keypanel, the message LCP 16 CLD Assigns (LCP Not Detected) appears.

Display Menu, Level 2

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

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

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



Display Menu, Listen

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

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

1. Starting at the Display menu, select **Listen**.
2. Press **SEL**.

The Listen display appears showing the listen assignments on the specified keys.



Display Menu, Matrix

Matrix displays the intercom system name for all talk level 1 key assignments. The local intercom is represented by a green key, while a remote intercom is represented by a red key. If a key assignment is not present on a key, an unassigned key (blue) 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. Starting at the Display menu, select **Matrix**.
2. Press **SEL**.

The Matrix display appears showing the matrix intercom system.



Display Menu, Panel ID

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

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

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

1. Starting at the Display menu, select **Panel ID**.
2. Press **SEL**.

The Panel ID display appears showing the port number and alpha (if applicable) for the keypanel.



Display Menu, Solo

Solo displays all keys with the solo assignment. For more information, see “Key Options Menu, Latching” on page 122.

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

1. Starting at the Display menu, select **Solo**.
2. Press **SEL**.

The Solo display appears showing solo keys in red.

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



Display Menu, Version

Version displays the firmware version currently running on the keypanel.

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

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

1. Starting at the Display menu, select **Version**.
2. Press **SEL**.

The Version display appears showing firmware version for the keypanel.



Menu System, Key Assign Menu

The **Key Assign** menu, shown in Figure 31, is used to assign intercom key assignments and auto functions to keypanel keys.

Available options for this menu are:

Matrix (only in trunked systems)

Pt-to-Pt

Party Line

IFB

Special List

Sys Relay

Camera ISO

UPL

IFSL

Auto Func



Key Assign Menu Part 1



Key Assign Menu Part 2

FIGURE 31. Main Key Assign Menu

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

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

Key Assign Menu, Matrix (Trunked System Only)

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

To assign a remote assignment to the RP-1000, do the following:

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



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



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



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

Key Assign Menu, Pt-to-Pt

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

NOTE: Some Pt-to-Pt destinations may be non-keypanel devices that cannot activate talk and listen paths. Therefore, if you want full communication, you may need to assign both talk and listen on the key. For more information, see “Key Assign Menu, Auto Func” on page 116.

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

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



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



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

Key Assign Menu, Party Line

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

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

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

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



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

Key Assign Menu, IFB

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

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

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



2. Press **SEL**.
A list of auto-functions appear (see Figure 32, "Auto Functions," on page 116).
3. Using the arrow keys, select the **auto-function** you want to assign to the IFB assignment, if applicable.
4. Press **SEL**.
Tap Key appears.
5. Press down on the **keypanel key position** where you want the IFB assignment to appear.
The key color changes to salmon and the alpha appears on the key.

Key Assign Menu, Spcl List

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

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

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

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



2. Press **SEL**.
A list of auto-functions appear (see Figure 32, "Auto Functions," on page 116).
3. Using the arrow keys, select the **auto-function** you want to assign to the Special List assignment, if applicable.
4. Press **SEL**.
Tap Key appears.
5. Press **down** on the keypanel key position where you want the Special List assignment to appear.
The key color changes to green and the alpha appears on the key.

Key Assign Menu, Sys Relay

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

- The 8 GPI outputs from an ADAM Frame (J11 on the XCP-ADAM-MC Breakout Panel).
- The 8 GPI outputs from an ADAM CS Frame (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 keypanel key**, do the following:

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



2. Press **SEL**.
A list of auto-functions appear (see Figure 32, "Auto Functions," on page 116).
3. Using the arrow keys, select the **auto-function** you want to assign to the relay assignment, if applicable.
4. Press **SEL**.
Tap Key appears.
5. Press **down** on the **keypanel key position** where you want the Relay assignment to appear.
The key color changes to magenta and the alpha appears on the key.

Key Assign Menu, Camera ISO

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

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

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



2. Press **SEL**.
A list of auto-functions appear (see Figure 32, "Auto Functions," on page 116).
3. Using the arrow keys, select the **auto-function** you want to assign to the Camera ISO assignment, if applicable.
4. Press **SEL**.
Tap Key appears.
5. Press down on the **keypanel key position** where you want the Camera ISO assignment to appear.
The key color changes to dark yellow and the alpha appears on the key.

Key Assign Menu, UPL

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

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

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



2. Press **SEL**.
A list of auto-functions appear (see Figure 32, "Auto Functions," on page 116).
3. Using the arrow keys, select the **auto-function** you want to assign to the UPL assignment, if applicable.
4. Press **SEL**.
Tap Key appears.
5. Press down on the **keypanel key position** where you want the UPL assignment to appear.
The key color changes to periwinkle and the alpha appears on the key.

Key Assign Menu, IFB SL

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

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

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



2. Press **SEL**.
A list of auto-functions appear (see Figure 32, “Auto Functions,” on page 116).
3. Using the arrow keys, select the **auto-function** you want to assign to the IFSL assignment, if applicable.
4. Press **SEL**.
Tap Key appears.
5. Press down on the **keypanel key position** where you want the IFSL assignment to appear.
The key color changes to brown and the alpha appears on the key.

Key Assign Menu, Auto Func

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

Available options for this menu are:

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



FIGURE 32. Auto Functions

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

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

Menu System, Key Options Menu

The **Key Options Menu**, shown in Figure 33, is used to configure many of the RP-1000 keypanel operation options, such as auto dial functions, chime keys and duration, exclusive keys, key group assignments, solo key configuration, latching options, button lock and tally operation.

Available options for this menu are:

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



FIGURE 33. Main Key Option Menu

Key Options Menu, Auto Dial

Auto Dial stores commonly used phone numbers in the auto dial list locally on the keypanel. You can access the local auto dial list from any CLD Color Display Keypanel or any of the KP 32 family keypanels.

NOTE: You can also create a centralized auto dial list which is stored on the Master Controller and maintained through AZedit. For more information, see “Centralized Auto Dials” on page 169.

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

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

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

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



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

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

3. Press **SEL**.
#01: with a blinking cursor appears in the display window.
4. Using the keypad keypad, enter the **phone number** you want to store (for example, 5551234567).

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

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

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

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



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

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

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

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

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

NOTE: To hang up after using the 1-Touch key, you must use the TIF menu or assign Drop to a UPG key. For more information, see “User Programmable Keys” on page 53.

Key Options Menu, Chime

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

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

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

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



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

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

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

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

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



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

Key Options Menu, Clear

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

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

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



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

Key Options Menu, Exclusive

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

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

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



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

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

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

Key Options Menu, Key Groups

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

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

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

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



2. Press **SEL**.
Tap Master Key appears in the display window.

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



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

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

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

Key Options Menu, Latching

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

By default, latching is enabled.

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

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



3. Using the arrow keys, select **Enabled** or **Disabled**.
A blue arrow ► appears next to the selected option.

Key Options Menu, Lock (Button Lock)

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

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

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



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

Key Options Menu, Panel Swap

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

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

For example, the RP-1000 has 32 physical keys and the matrix has 64 ports; therefore, one (1) virtual EKP can be used.

However, a RP-1000 and an EKP-32 has 64 physical keys. Virtual EKPs cannot be used unless the Intercom is configured for 96 or 128 ports.

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

TABLE 7. Number of Virtual EKPs supported with different keypanel and intercom configurations

Intercom configured for 64 keys	# of Virtual EKPs supported
RP-1000	1
RP-1000 w/RP-1932	0

Intercom configured for 96 keys	# of Virtual EKPs supported
RP-1000	2
RP-1000 w/RP-1932	1
RP-1000 w/2xRP-1932	0

Intercom configured for 128 keys	# of Virtual EKPs supported
RP-1000	3
RP-1000 w/RP-1932	2
RP-1000 w/2xRP-1932	1
RP-1000 w/3xRP-1932	0

Panel Swap Control Options

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

Keypad FWD

Keypad BACK

Keypad UPG1

Keypad UPG2

GPI In Opto 1, 2, 3, and 4

GPI Out OC Out 1 and 2

GPI Out Relay 1, 2, and 3

Configuration for Panel Swap

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

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

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

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

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


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

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

Panel Swap Key States

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

- Force Off:* the key assignment is automatically terminated when the key assignment is not displayed.
- Retain:* the key assignment stays active even when the key assignment is not displayed.

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

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


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

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

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

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



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

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

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



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



3. Using the arrow keys, select **control mechanism** desired.
4. Press **SEL**.
The appropriate sub-control mechanism appears (see “Panel Swap Control Options” on page 124).
5. Using the arrow keys, select the **sub-control mechanism**.
6. Press **SEL**.
Cycle To, Switch To, Toggle To, and Unassigned appear in the display window.



7. Using the arrow keys, select the **keypanel action** desired.
8. Press **SEL**.
A list of actions for the keypanel action appears in the display window (see “Configuration for Panel Swap” on page 124).
9. Using the arrow keys, select the **action** desired.
10. Press **SEL**.
A blue arrow ► appears next to the selected option.
11. Press the **CLR** button to exit the menu.

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

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



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



3. Using the arrow keys, select the **key state** you want to enable (see “Panel Swap Key States” on page 125).
4. Press **SEL**.
A blue arrow appears next to the selected option.
5. Press the **CLR** button to exit the menu.

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

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



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



3. Using the arrow keys, select **control mechanism** you want to erase.
4. Press **SEL**.
The appropriate sub-control mechanism appears (see “Panel Swap Control Options” on page 124).
5. Using the arrow keys, select the **sub-control mechanism** you want to erase.

6. Press **SEL**.
Cycle To, Switch To, Toggle To, and Unassigned appear in the display window.



7. Using the arrow keys, select **Unassigned**.
8. Press **SEL**.
A blue arrow appears next to the selected option.
9. Press the **CLR** button to exit the menu.

Key Options Menu, Solo

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

You can assign only one (1) solo key.

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

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



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

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

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

Key Options Menu, Tallies




FIGURE 34. Key Options Menu - Tallies Menu

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

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

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

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

A blue arrow  appears next to the selected option.



Key Options Menu, Turn Off

The **Turn Off** menu item allows the user to turn off all keys, all talk keys, or all listen keys. This menu item can be used with the programmable UPG keys to create a UPG key which can turn off all keys with one push of a key.

To **turn off keys on the keypad using the menu**, do the following:

1. Starting at the Key Options|Turn Off menu, select **All Keys**, **Talk Keys** or **Listen Keys**.
2. Press **SEL**.
Turn Keys Off? appears in the keypad display window.
3. Press **SEL**.
Keys Turned Off appears in the keypad display window.
4. Press **CLR** to clear the keypad display window.

To **configure a UPG to turn off keys**, do the following:

1. Starting at the Key Options|Turn Off menu, select **All Keys**, **Talk Keys** or **Listen Keys**.
2. Press **SEL**.
Turn Keys Off? appears in the keypad display window.
3. Press **SEL**.
Keys Turned Off appears in the keypad display window.

4. On the keypanel, press and hold **UPG 1** or **UPG 2** until the message Menu position saved appears in the keypanel display window.
Keys Turned Off appears in the keypanel display window once the UPG key is released.
5. Press **CLR** to clear the keypanel display window.

To **configure a UPG to require a confirmation before turning off keys**, do the following:

1. Starting at the Key Options|Turn Off menu, select **All Keys**, **Talk Keys** or **Listen Keys**.
2. Press **SEL**.
Turn Keys Off? appears in the keypanel display window.
3. On the keypanel, press and hold **UPG 1** or **UPG 2** until the message Menu position saved appears in the keypanel display window.
Turn Keys Off? reappears in the keypanel display window.
4. Press **SEL**.
Keys Turned Off appears in the keypanel display window.
5. Press **CLR** to clear the keypanel display window.

Menu System, OMNEO Offers (Only available with OKI-2 option card installed)

The **OMNEO Offers** menu item is used to configure the matrix connection when the OKI-2 option card is installed. From this menu, you can also configure the OMNEO channels to be used for AUX Inputs.



FIGURE 35. OMNEO Offers Information Menu Option

OKI-2 Option Card Matrix Port Configuration

With the OKI-2 card installed in the RP-1000 Series/CLD family of keypanels, you can have up to two (2) additional full-duplex audio channels that can be mixed with audio in the keypad.

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

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



NOTE: When the OKI-2 card is installed, by default the AIO menu selection is Disabled.

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

NOTE: You can automatically switch between keypad frame connections. But, when the connection is switched, it automatically disables and resets to the *None* option. This means when you reconnect, you must reassign the matrix port.

OKI-2 Option Card Aux Port Configuration

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

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



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



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

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

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



FIGURE 36. RVON Offers Information Menu Option

RVON-2 Option Card Matrix Connection

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

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

<i>AIO</i>	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.
<i>RVON-2</i>	RVON-16, RVON-8, RVON-C, RVON-I/O (in remote mode). You can only use RVON CH1 when connecting to the matrix using the RVON-2. Use the VoIP connection on the RVON-2 option card.
<i>RVON-I/O</i>	RVON-16, RVON-8, RVON-C, and RVON-I/O (in local mode). Use the Frame connection on the back panel of the keypanel.

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

RVON-2 Option Card Matrix Port Configuration

With the RVON-2 option card installed in the RP-1000/CLD family of keypanels, you can have up to two (2) additional full-duplex audio channels that can be mixed with audio in the keypanel.

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

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

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



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

2. Using the arrow keys, select the **port** you want to use.
An arrow appears next to the port.
3. 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* 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:

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



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

Menu System, Save Config

The **Save Config** menu option, shown in Figure 37, 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. You can run Reset Config (see “Service Menu, Reset Cfg” on page 156), to erase all custom settings.



FIGURE 37. Save Config Menu Option

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

- On the keypad, press **MENU**.
The Information menu appears.
- Using the arrow keys, select **Save Config**.
- Press **SEL**.
Configuration Saved appears in the display window.



Menu System, Service

The information available for key assign is as follows:

Alphas
Aux/Mtx Inputs
Baud Rate
Display Dim
Footswitch
Ganged Vols
Intercom Mode
Key View
Keypad
Local GPIO
OMNEO Setup (Only Available if the OKI-2 card is present)
Page Change
Reset Cfg
RVON Setup (Only Available if the RVON-2 card is present)
Scrn Saver
Set Address
Snoop Tally
Test Panel



FIGURE 38. Main Service Menu

Service Menu, Alphas

The **Alphas** menu is used to select the character size appearing in the display window of the keypanel .

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

Minimum firmware revision requirements for Cyrillic support¹ are:

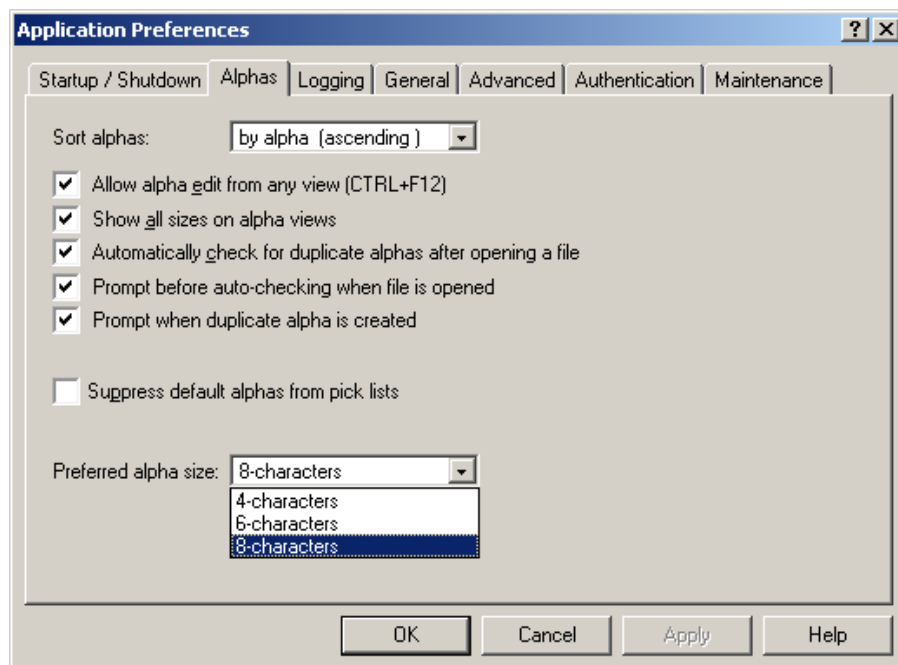
- MCII-e v2.4.0 or later
- AIO-8 v10.5.0 or later
- AIO-16 v1.3.0 or later
- Cronus v1.8.0 or later
- Zeus III v1.3.0
- RP-1000 v2.0.0
- KP 32 CLD v1.3.0 or later
- KP 12 CLD v1.1.0
- KP812-U v1.0.0
- KP12/4U v1A.0.25C (Cyrillic character set only)
- Font file KP32-CLD-UNICODE.KPF v0.05

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

Available options are:

4 Chars
6 Chars
8 Chars
8 Chars (Unicode)

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



1. To use Cyrillic mode, you must configure AZedit to support it. For more information, see "Unicode Support" on page 227.

To **set the alpha size**, do the following:

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



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



3. Using the arrow keys, select **Save and Restart**.
4. Press **SEL**.
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 RP-1000 has six (6) Aux Input connectors on the back panel of the unit. See the “RP-1000 Block Diagram” on page 14.

By default, Matrix In is *enabled*.

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

NOTE: There are only three (3) Aux Inputs available on the DKP 16 CLD.

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

1. Starting at the Service|Aux/Mtx Inputs menu, select **Aux In 1**, **Aux In 2**, **Aux In 3**, **Aux In 4**, **Aux In 5**, **Aux In 6**, **Matrix In**, **RVON Ch1** or **RVON Ch2**.
2. Press **SEL**.
Disabled and Enabled appear in the display window.
3. Using the arrow keys, select **Enabled** to enable the selected Aux Input.
OR
Select **Disabled** to disable the selected Aux Input.

Service Menu, Baud Rate

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

Available selections for this field are:

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

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

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

A blue arrow ► appears next to the option currently selected.



- Press **SEL**.

Service Menu, Display Dim

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

Available selections for this menu are *35% brightness* up to *100% brightness* (set in increments of 5).

By default, the keypanel brightness is set to *40%*.

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


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

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

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

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

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




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

Service Menu, Footswitch

The **Footswitch** menu allows the user to enable the footswitch feature and configure how a latched talk key behaves when the footswitch is released. In normal footswitch operation, latched talk keys go into a ready state waiting for the footswitch to be pressed. When the footswitch is pressed, the latched talk keys become active. Then, when the footswitch is released, the latched talk keys go back into a ready state. You can configure the keypanel so latched talk keys become unlatched when the footswitch is released. In this mode, the footswitch is one-time operation. Pressing the footswitch turns the keys on and releasing the footswitch turns the keys off, unlatching them so the keys are unable to come on again with the next press of the footswitch. To use the footswitch again, you must re-latch the desired talk keys. For more information, “Key Options Menu, Latching” on page 122.

A footswitch is a foot-triggered switch used to activate keypanel assignments.

By default, the Footswitch is *disabled*.

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

Enabling

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

1. Starting at the Service|Footswitch menu, select **Mode**.
2. Press **SEL**.
Disabled Enabled appear in the display window.
3. Using the arrow keys, select **Enabled**.
4. Press **SEL**.

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



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

1. Starting at the Service|Footswitch menu, select **Mode**.
2. Press **SEL**.
Disabled Enabled appears in the display window.
3. Using the arrow keys, select **Disabled**.
4. Press **SEL**.

A blue arrow ► appears next to Disabled.

5. Press **CLR** to exit menu mode.

Latch Operation

To **have talk keys unlatch when the footswitch is released**, do the following:

1. Starting at the Service|Footswitch menu, select **Latched Keys**.
2. Press **SEL**.
Retain and Unlatch appear in the display window.
3. Using the arrow keys, select **Unlatch**.
4. Press **SEL**.

A blue arrow ► appears next to Unlatched.

5. Press **CLR** to exit menu mode.

To **have talk keys return to the latched state when the footswitch is released**, do the following:

1. Starting at the Service|Footswitch menu, select **Latched Keys**.
2. Press **SEL**.
Retain and Unlatch appear in the display window.
3. Using the arrow keys, select **Retain**.
4. Press **SEL**.

A blue arrow ► appears next to Retain.

5. Press **CLR** to exit menu mode.

Service Menu, Ganged Vols

Ganged Vols is used to set what happens when adjusting the volume for a ganged channel pair when the volumes are not identical and one of the volumes reaches the minimum or maximum level.

Available options:

Disappearing Mode – allows adjustments to continue when one of the volumes of the ganged pair hits a limit. This setting adjusts the volume difference until the difference or offset between the volumes disappears.


Fixed Offset Mode – prevents adjustments to continue when one of the volumes of the ganged pair hits a limit. This setting maintains the difference between the two volumes.

To **configure ganged vols**, do the following:

- Starting at the Service|Ganged Vols menu, select **Disappearing** to allow adjustments to continue once a limit has been met by one (1) of the volumes.
OR
select **Fixed Offset**, to prevent adjustments once a limit has been met by one (1) of the volumes.



- Press **SEL**.


A blue arrow  appears next to selected option.

Service Menu, Intercom Mode

The **Intercom Mode** menu is used to select the type of firmware you have in your intercom and so the keypanel can display alphas in the correct font/language.

Available options are *Alternate* and *Standard*.

To **select the intercom mode**, do the following:

- Starting at the Service|Intercom Mode menu, select **Alternate** or **Standard**.
A blue arrow  appears next to selected option.
- Press **SEL**.
The selections *Cancel* and *Save and Restart* appear.
- Using the arrow keys, select **Cancel** to cancel out of the action.
OR
Using the arrow keys, select **Save and Restart** to save the changes.
- Press **SEL**.


Service Menu, Key View

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

By default, *Suppress AF* is selected.

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

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

A blue arrow  appears next to selected option.

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



Service Menu, Keypad

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



FIGURE 39. Service Menu - Keypad Options

Keypad Sequence

Keypad Sequence is used to select the type of keypad you want to use on the keypanel.

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

For more information, see “Keypad Quick Reference” on page 173.

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

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



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

SEL Key

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

Available selections for this field are:

<i>Auto</i>	The key function is automatically selected based on whether you are in English or Japanese alpha mode. In Standard mode, the SEL/PGM key is assigned Assignment Group functionality, while in Alternate mode, the SEL/PGM key is assigned Quick Assign functionality.
<i>Assignment Groups</i>	The key function is given Assignment Groups. This displays the scroll lists of a collection of user-selectable key assignments. When you select a group, a scroll list of the members of the group appear, which then can be called or programmed onto a key. For more information see, "Assignment Groups Page" on page 59.
<i>Quick Assign</i>	The key function is given Quick Assign. When you configure the SEL/PGM key with Quick Assign, you are actually selecting your most used key type, for example, P-P with AL. When the SEL/PGM key is pressed with a quick assign configured to it, a menu appears with Assign or Clear. The user can then quickly configure a key with a pre-configured assignment by selecting Assign, or clear the key assignment by selecting Clear.

Backlight

Available selections for this field are:

<i>Activate</i> (default)	When Activate is selected, the backlight activates when 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.
<i>Always Off</i>	The keypad backlight is always off.
<i>Always On</i>	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. Starting at the Service|Keypad menu, select **Backlight**.
2. Press **SEL**.
Activate (default), Always Off, and Always On appear in the display window.



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

Service Menu, Local GPIO

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

Further configuration can be done to allow GPIO Inputs to track the state of the Output. For example, an output is activated (and is being tracked by an input), the input is also activated. This feature allows GPIO Outputs to control Talk Key or Key Group activation.

In addition to tracking, you can also configure the way a Input GPIO Key Group is configured. By default, when a key group is activated, the keys are forced on until the key group is deactivated. This is referred to as Level Mode. Alternatively, you can configure the key group to Edge Mode. This option turns on keys in a key group when the group is activated, but allows the user to turn off individual keys even if the key group is still active.

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

NOTE: The DKP 16 CLD has only three (3) Opto Connectors available.

To **configure a GPIO Input to control an individual talk key**, do the following:

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



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



7. Using the arrow keys, select **Talk Key**.
8. Press **SEL**.
Tap Key appears in the display window.
9. Tap the **talk key** to be controlled by the GPIO Input.
The selected keypanel key turns red.

To **configure a GPIO Input to control a Key Group**, do the following:

1. Starting at the Service|Local GPIO menu, select **GPIO Inputs**.
2. Press **SEL**.
Opto 1, Opto 2, Opto 3, and Opto 4 appear in the display window.
3. Using the arrow keys, select **Opto 1, Opto 2, Opto 3, or Opto 4**.
4. Press **SEL**.
Function and Mode appear in the display window.
5. Using the arrow keys, select **Function**.
6. Press **SEL**.
Key Group, Not Assigned, and Talk Key appear in the display window.
7. Using the arrow keys, select **Key Group**.
8. Press **SEL**.
A list of Key Groups appear in the display window.



9. Using the arrow keys, select the **group** to be controlled by the GPIO Input.
10. Press **SEL**.
A blue arrow ► appears next to the selected option.

To **configure GPIO Input control of a key group for edge or level mode**, do the following:

1. Starting at the Service|Local GPIO menu, select **GPIO Inputs**.
2. Press **SEL**.
Opto 1, Opto 2, Opto 3, and Opto 4 appear in the display window.
3. Using the arrow keys, select **Opto 1, Opto 2, Opto 3, or Opto 4**.
4. Press **SEL**.
Function and Mode appear in the display window.
5. Using the arrow keys, select **Function**.




6. Press **SEL**.
Key Group, Not Assigned, and Talk Key appear in the display window.
7. Using the arrow keys, select **Key Group**.

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



9. Using the arrow keys, select the **group** you want to assign the GPIO Input to.
Level and Edge appear in the display window.
10. Using the arrow keys, select **Level** or **Edge**.



11. Press **SEL**.
A blue arrow  appears next to the selected option.

To setup a GPIO Input to track its corresponding GPIO Output, do the following:

1. Starting at the Service|Local GPIO menu, select **GPIO Inputs**.
2. Press **SEL**.
Opto 1, Opto 2, Opto 3, and Opto 4 appear in the display window.
3. Using the arrow keys, select **Opto 1**, **Opto 2**, **Opto 3**, or **Opto 4**.
4. Press **SEL**.
Function and Mode appear in the display window.
5. Using the arrow keys, select **Mode**.




6. Press **SEL**.
Normal and Track Output appear in the display window.

7. Using the arrow keys, select **Track Output**.



8. Press **SEL**.

A blue arrow  appears next to the selected option.

To **configure local control of a GPIO Output**, do the following:

NOTE: There are no open collector outputs available on the DKP 16 CLD.

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



3. Using the arrow keys, select **Relay 1, Relay 2, Relay 3, OC Out 1, or OC Out 2**.
4. Press **SEL**.
Not Assigned, Talk Key, UPG 1 and UPG 2 appear in the display window.
5. Using the arrow keys, select the **method** you want to control the GPIO Output.
If UPG1 or UPG2 is selected, configuration is finished. If Talk Key is selected proceed to the next step.
6. Press **SEL**.
Tap Key appears in the display window.
7. Tap the **key** to be used to trigger the GPIO Output.
The selected keypad key turns red.

Service Menu, OMNEO Setup

The **OMNEO Setup** menu option is used to configure the OKI-2's device name, enable DHCP, and address the OKI-2 card for the RP-1000 Series keypanel.

IMPORTANT: When making changes to the OKI-2 device name and IP Address at the keypanel, you must make the same changes in AZedit or IPedit before the connection is made. For example, if you configure all your devices in either AZedit or IPedit before putting the matrix on the network. Once the keypanels have been configured and the matrix is put on the network, the connections will automatically be made. Making the change at the keypanel alone does not automatically update the configuration on the matrix.

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

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



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



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

To **configure the OKI-2's device name**, do the following:

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



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

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

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



7. Using the arrow keys, select **Device Name**.
The name of the OKI-2 card appears in the display window with the first character of its name blinking.



8. Using the arrow keys, scroll through the **characters** to the character you want to assign.
OR
Using the Aux Volume knob, turn the **knob** to the right to scroll quickly through the characters.
9. Press **SEL**.
OR
Turn the **Main Volume knob** to the right.
The focus moves to the next letter.
10. Repeat **steps 12 and 13** until you have modified the device name.
11. Press **FWD**.
The message Save Name? appears on the display window.
12. Press **SEL**.

To **configure the OKI-2 IP parameters**, do the following:

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



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



5. Press **SEL**.
The IP Address appears with the first octet blinking in the display window.
6. Using the number pad, enter the **first octet number** in the IP Address.
7. Press **SEL**.
The focus shifts to the second octet.
8. Using the number pad, enter the **second octet number** in the IP Address.
9. Press **SEL**.
The focus shifts to the third octet.
10. Using the number pad, enter the **third octet number** in the IP Address.
11. Press **SEL**.
The focus shifts to the last octet.
12. Using the number pad, enter the **last octet number** in the IP Address.
13. Press **SEL**.
The OMNEO Setup menu options appear in the display window.

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

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



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

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

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



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

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

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



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



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

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

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



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

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

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



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

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

Service Menu, Page Change

Page Change is used to select whether setup pages allow changes while talk keys are active. By default, in Standard Intercom Mode, page changes are allowed when talk keys are active. However, the default in Alternate Intercom Mode does not allow page changes to occur when talk keys are active.

Available options:


- | | |
|-----------------------|--|
| <i>Auto</i> – | The default is followed depending on the Intercom Mode: Standard or Alternate. |
| <i>Always Allow</i> – | Page changes are allowed while Talk Keys are active. |
| <i>No Talk Keys</i> – | Page changes are not allowed while Talk Keys are active. A red bar appears above/below the keys signifying page changes are not allowed. If the talk key is turned off, the red bar turns blue and page changes can be done. |

To **configure page change operation**, do the following:

1. Starting at the Service|Page Change menu, select **Page Change**.
2. Press **SEL**.
Auto, Always Allow, and No Talk Keys appear.



3. Using the arrow keys, select the **page change option** you desire.
4. Press **SEL**.

A blue arrow  appears next to the selected option.

Service Menu, Reset Cfg

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

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

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



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



Service Menu, RVON Setup

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

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

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

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



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



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



- Press **SEL**.
The focus shifts to the second octet.
- Using the number pad, enter the **second octet number** in the IP Address.
- Press **SEL**.
The focus shifts to the third octet.
- Using the number pad, enter the **third octet number** in the IP Address.
- Press **SEL**.
The focus shifts to the last octet.
- Using the number pad, enter the **last octet number** in the IP Address.
- Press **SEL**.
The RVON Setup menu options appear in the display window.

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

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



- Press **SEL**.
The Gateway Address appears with the first octet blinking in the display window.
- Using the number pad, enter the **first octet number** in the Gateway Address.
- Press **SEL**.
The focus shifts to the second octet.
- Using the number pad, enter the **second octet number** in the Gateway Address.
- Press **SEL**.
The focus shifts to the third octet.

7. Using the number pad, enter the **third octet number** in the Gateway Address.
8. Press **SEL**.
The focus shifts to the last octet.
9. Using the number pad, enter the **last octet number** in the Gateway Address.
10. Press **SEL**.
The RVON Setup menu options appear in the display window.

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

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



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

Service Menu, Scr Saver

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



FIGURE 40. Service Menu - Screen Saver Options

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 Bitmap, Display Off (sleep mode), or Text. |

The default setting for this option is:

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

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

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

1. Starting at the Service|**Scrn Saver** menu, select **Activate**.



2. Press **SEL**.
The screen saver is activated on the keypanel display window.

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

1. Starting at the Service|Scrn Saver menu, select **Delay**.
2. Press **SEL**.

Delay Time: 1 Hour ⬆ ⬇ ⬆ appears.



3. Using the arrow keys, select the **amount of time** you want to expire before the screen saver activates.

To set the screen saver mode (type), do the following:

1. Starting at the Service|Scrn Saver menu, select **Mode**.
2. Press **SEL**.

Bitmap, Display Off and Text appear in the display window.



3. Using the arrow keys, select **Bitmap** to display the RTS logo when the screen saver activates.
OR
Using the arrow keys, select **Display Off** to put the display into sleep mode when the screen saver activates.
OR
Using the arrow keys, select **Text** to have a text message display when the screen saver activates.
4. Press **SEL**.
If Bitmap or Text is selected, the options Bounce or Scroll appear.
5. Using the arrow keys, select **Bounce** to have the bitmap or text bounce across the display.
OR
Using the arrow keys, select **Scroll** to have the bitmap or text scroll across the display.

Service Menu, Set Address

Set Address is used to indicate the poll ID of the RP-1000. See “RP-1000 Addressing” on page 29 to determine if you need to set the keypanel address. The poll ID is the number (or address) at which audio is sent to and from the keypanel to the Matrix. The Poll ID number is directly related to the connection port on the breakout panel.

EXAMPLE: If the RP-1000 or DKP 16 CLD is connected to the breakout panel on J2, the poll ID for the keypanel is 2.

Available options for the Poll ID are 1–8.

To **set the address**, do the following:

1. Starting at the Service|Set Address menu, select the **poll ID** for the keypanel
2. Press **SEL**.
Cancel or Save and Restart appear in the display window.








3. Using the arrow keys, scroll to **Save and Restart**.



4. Press **SEL**.
Restarting.... appears. The keypanel resets. Once the restart is complete, the Poll ID is enabled.



TABLE 8. Test Panel Key Descriptions

<i>Display</i>	<i>Action</i>
	All alpha numeric displays show a % symbol when in Test Panel mode.
	Press down on any key.
	Press up on any key.
	Press to the right on any key (excluding the MIC MUTE/MIC SEL and CLR/CWW).
	Press to the left on any key (excluding the MIC MUTE/MIC SEL. and CLR/CWW).
<-AUX>	Rotate the Aux Volume encoder knob counterclockwise.
<+AUX>	Rotate the Aux Volume encoder knob clockwise.
<-MAIN>	Rotate the Main Volume encoder knob counterclockwise.
<+MAIN>	Rotate the Main Volume encoder knob clockwise.
<-MIC>	Press left on the MIC MUTE/MIC SEL. key.
<+MIC>	Press right on the MIC MUTE/MIC SEL. key.
<MUTE>	Press up on the MIC MUTE/MIC SEL. key.
<MIC>	Press down on the MIC MUTE/MIC SEL key.
<-CWW>	Press left on the CLR/CWW key.
<+CWW>	Press right on the CLR/CWW key.
<CLR>	Press up on the CLR/CWW key.
<CWW>	Press down on the CLR/CWW key.
<Menu>	Press the MENU button.
<Fwd>	Press the FWD button.
<Back>	Press the BACK button.
<UPG1>	Press the UPG1 button.
<UPG2>	Press the UPG2 button.

To **enable the test panel**, do the following:

1. On the keypanel keypad, press **MENU**.
The Information menu appears.
2. Using the arrow keys, select **Service**.
3. Press **SEL**.
The Service submenu appears in the display window.
4. Using the arrow keys, select **Test Panel**.
5. Press **SEL**.
The Test Panel display appears.
6. Using Table 8 on page 163, test the **keypanel keys**.

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: TIF assignments tally when the phone is ringing. By default, the assignments also tally while the phone is off-hook. This operation can be disabled by selecting the *Don't generate tallies for off-hook TIF assignments* check box in AZedit (Options|Intercom Configuration|Options page).

Dialing and Hanging Up

NOTE: Auto Dial only appears in the TIF menu options when auto dial numbers are configured.

Manual Dial

To **manually dial**, do the following:

1. On the keypanel, 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 window.
3. Using the arrow keys, select **Manual Dial**.



4. Press **SEL**.
Dial: appears in the display window.
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**, do the following:

1. On the keypad, press the **TIF** key down to turn it on.
Auto Dial, Hang Up, Manual Dial, and Redial appear in the display window.
2. Using the arrow keys, select **Hang Up**.



3. Press **SEL**.
The call is disconnected.

To **program a keypanel UPG key to activate the TIF key**, do the following:

1. In Standard mode, press **0**.
OR
In Classic mode, press **4**.
Dial Drop appear in the display window.
2. Using the arrow keys, select **Dial**.
Tap Key appears in the display window.
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 RP-1000 keypanel UPG key to hang up the TIF key**, do the following:

1. In Standard mode, press **0**.
OR
In Classic mode, press **4**.
Dial Drop appear in the display window.
2. Using the arrow keys, select **Drop**.
Tap Key appears in the display window.
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**, do the following:

1. On the keypanel, press the **TIF listen** key on.
2. On the keypanel, press the **TIF talk** key on.
Auto Dial, Hang Up, Manual Dial, and Redial appear in the display window.
3. Using the arrow keys, select **Redial**.



4. Press **SEL**.
The last dialed number is connected. The TIF key alpha flashes and Hang Up appears in the display window.



5. Press **SEL** to disconnect the call.
The call is ended.

Auto Dial

To **autodial a phone number**, do the following:

1. On the keypanel, press the **TIF listen** key on.
2. On the keypanel, press the **TIF talk** key on.
Auto Dial, Hang Up, Manual Dial, and Redial appear in the display window.
3. Using the arrow keys, select **Auto Dial**.



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



5. Using the arrow keys, 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 window.

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 utilize centralized auto dials in your intercom system:

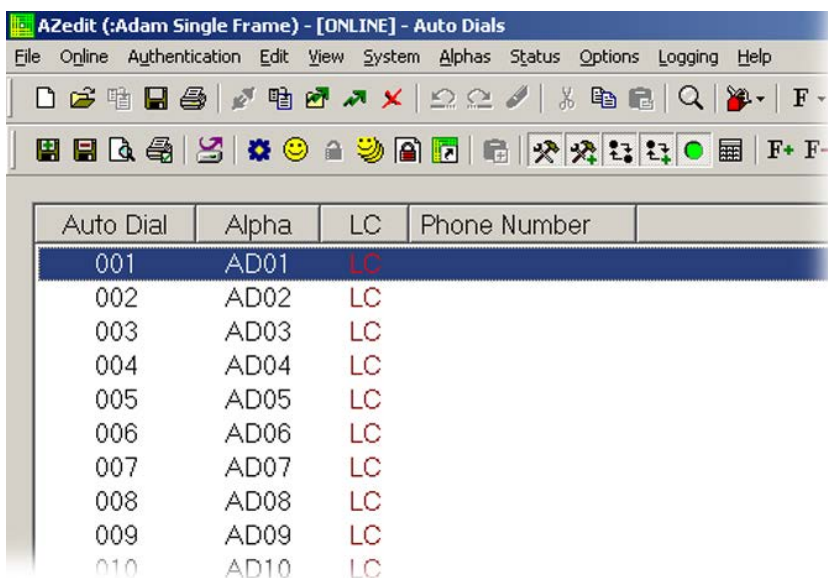
- AZedit Intercom Software V3.6.1 or later
- MCII-e V2.0.4 or later
- PeriphII-e (Ethernet) V1.20.0 or later
- Periph Controller (Standard) V10.20.0 or later
- DBX V1.20.0 or later
- Cronus Firmware V1.5 or later
- Zeus II Firmware V3.4.0 or later
- Zeus III Firmware V1.0.0 or later
- KP 32 CLD Firmware V1.3.0 or later
- RP-1000 Firmware V 2.0.0 or later

Centralized Auto Dial

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 keypanel. For more information, see “Key Options Menu, Auto Dial” on page 117.

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 boxes** you want to configure for the auto dial number.
4. In the Phone Number field, enter the **telephone number** you want to have for that auto dial sequence.

NOTE: Entering *99 creates a pause in dialing. This is used to dial extensions or select preset options.

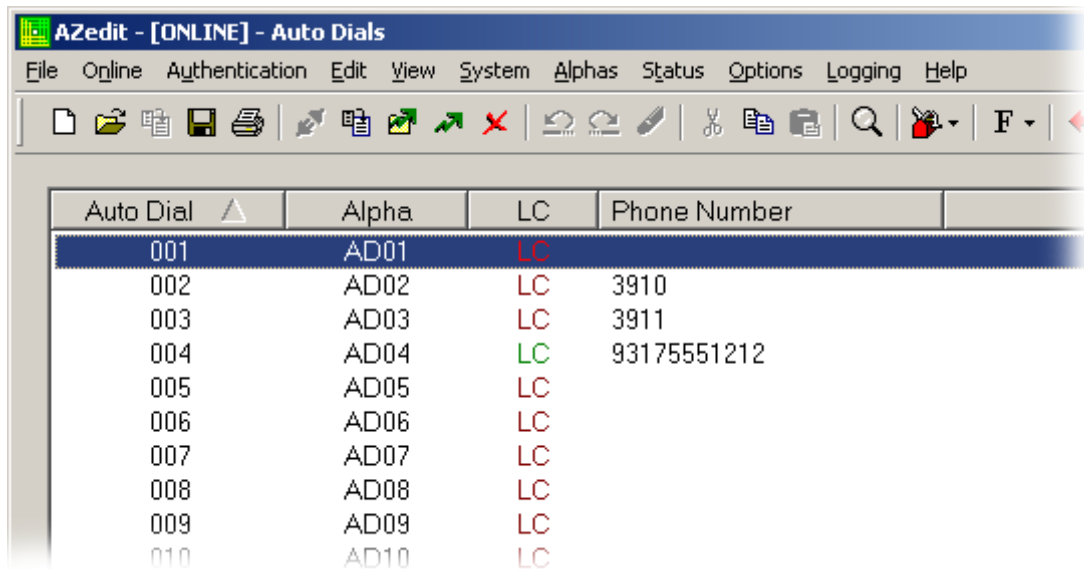
5. Click **Next** to enter another number.
The next blank Edit Auto Dials window appears.
OR
Click **Done** to close the Edit Auto Dial window.
The Auto Dials window appears with the new number in the list.

To **add a description to the telephone number you added to the Auto Dial database**, do the following:

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

3. In the Description field, enter a **unique description** for the auto dial number. For example, Studio 1A NYC.
4. In the Alpha 4, Alpha 6, or Alpha 8 field, enter a **recognizable 4-, 6- or 8-character Alpha**. For example, 1ANY.

5. Click **Done** when you are finished.
OR
Click **Next** to enter another Alpha Description.



Auto Dial	Alpha	LC	Phone Number
001	AD01	LC	
002	AD02	LC	3910
003	AD03	LC	3911
004	AD04	LC	93175551212
005	AD05	LC	
006	AD06	LC	
007	AD07	LC	
008	AD08	LC	
009	AD09	LC	
010	AD10	LC	

6. From the Online menu in AZedit, select **Send Changes**.
The Send Changes window appears.
7. Click **OK**.
The changes are sent to the intercom and the telephone number is added to the intercom system auto dial table.

To use **centralized auto dial numbers**, do the following:

1. On the keypanel, press the **key with the TIF assignment**.
Hang Up, Icom ADial, Manual Dial, and Redial appear in the display window.



2. Using the arrow keys, 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 window.
4. Using the arrow keys, scroll to the desired **auto dial number**.
5. Press **Sel**.
The number connects.

To use centralized auto dial numbers with keypanel keypad sequences, do the following:

1. When using the Standard keypad mode, press **0**.
OR
When using the Classic keypad mode, press **4**.
Dial and Drop appear in the display window.



2. Using the arrow keys, scroll to **Dial**.
OR
Press the **Dial** key on the keypanel.
3. Press **SEL**.
Tap Key appears.
4. Press the **TIF assignment key**.
A dial tone is heard.
5. Using the keypad, enter #NNN (where NNN is the Auto Dial number assignment in AZedit).
The number is dialed.

Keypad Quick Reference

Keypad Sequence Introduction

Keypad sequences are a series of keypad strokes made on the keypad, which in turn displays specific information (such as keypad ID, talk level 2 assignments, etc.). Keypad sequences are shortcuts via the keypad keypad.

Available options for this field are:

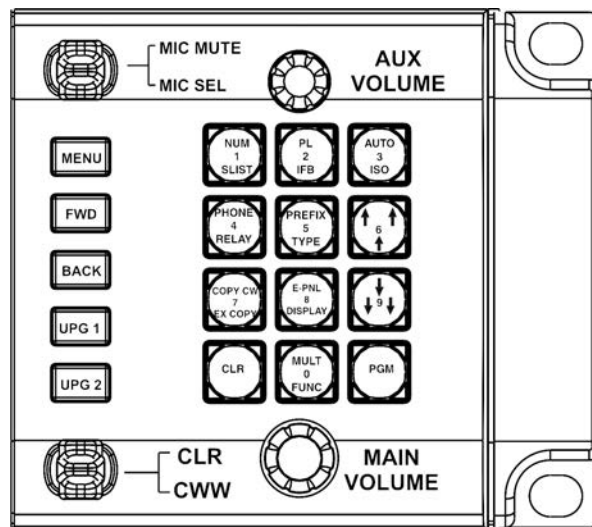
<i>Classic</i>	sequence 2, is the previous standard for KP 32 and KP 96 keypads.
<i>Standard</i>	sequence 1, is the new standard for the RP-1000. This sequence is based upon an alternate key sequence for the KP 32 keypad.

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 142.

As with other keypads, the RP-1000 Series allows you to lock the entire menu or only the service menu. This is implemented through AZedit (System|Miscellaneous|Keypad Menu Password). For more information, see the AZedit user manual.

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

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

Standard 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
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

System Menu - with GPIO Option Card 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

Audio Options

Filters

Aux In 1	Filter List
Aux In 2	• none
Aux In 3	• 9600Hz
Aux In 4	
Aux In 5	
Aux In 6	
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
Aux In 4	Threshold Disabled
Aux In 5	Threshold Disabled
Aux In 6	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

Audio Options**Metering**

Aux In 1
 Aux In 2
 Aux In 3
 Aux In 4
 Aux In 5
 Aux In 6
 Front Hdst
 Front Mic
 Matrix In
 None
 Rear Hdst
 Rear Mic
 RVON Ch1
 RVON Ch2

Mixing

Front Hdst	Source List (Not all sources are available to be mixed to all destinations)
Both	
Left	
Right	<ul style="list-style-type: none"> Front Mic
Front Spkr	<ul style="list-style-type: none"> Rear Mic
Preamp Out	<ul style="list-style-type: none"> Front Hdst
Rear Hdst	<ul style="list-style-type: none"> Rear Hdst
Both	<ul style="list-style-type: none"> Matrix
Left	<ul style="list-style-type: none"> Aux In 1
Right	<ul style="list-style-type: none"> Aux In 2
Rear Spkr	<ul style="list-style-type: none"> Aux In 3
Both	<ul style="list-style-type: none"> Aux In 4
Left	<ul style="list-style-type: none"> Aux In 5
Right	<ul style="list-style-type: none"> Aux In 6
RVON Ch 1	<ul style="list-style-type: none"> RVON Ch1
RVON Ch 2	<ul style="list-style-type: none"> RVON Ch 2
To Matrix	

Headset Mic**Front**

Auto-Mute	Disabled
	Enabled
Mode	Disabled
	Enabled
	Switched*
Type	Auto-Detect
	Dynamic
	Electret

Audio Options**Rear**

Auto-Mute	Disabled
	Enabled
Mode	Disabled
	Enabled
	Switched*
Type	Auto-Detect
	Dynamic
	Electret

Headset Spkr**Front**

Auto-Transfer	
	Disabled
	Enabled*
Mode	
	Both, Left Channel, Right Channel
	Always On*
	Disabled
	Switched

Rear

Auto-Transfer	
	Disabled
	Enabled*
Mode	
	Both, Left Channel, Right Channel
	Always On*
	Disabled
	Switched

Volume Control

Ganged	
Individual	

Key Volumes**Adjust**

Enabled*	
Disabled	

Reset

Cancel	
Do Reset	Volumes Reset

Audio Options**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
	Aux 4
	Aux 5
	Aux 6
	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

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

Audio Options**Min Volume****Headset**

Front	Min Volume: Mute
Rear	Min Volume: Mute

Speaker

Front	Min Volume: Mute
Rear	Min Volume: Mute

Output Level

Output Lvl: +8dB

Panel Mic**Front**

- Disabled
- Enabled
- Switched*

Rear

- Disabled
- Enabled
- Switched*

Preamp Out

- Disabled
- Hot Mic
- Switched*

Sidetone**Level**

Sidetone Level: -20dB

Mode

- Always On
- Disabled
- Switched*

Speaker**Front**

- Both, Left Channel, Right Channel
- Always On*
- Disabled
- Switched

Rear

- Both, Left Channel, Right Channel
- Always On*
- Disabled
- Switched

Volume Control

- Ganged
- Individual

Audio Options**Tone Gen**

Frequency

1KHz

500Hz*

Tone Off*

Tone On

Display**Assign Type**

Key Assign Type

Auto Dial

1-touch Key Assignments

Chans On

List of Callers

Chime

Chime Keys

Exclusive

Exclusive Keys

Key Groups

Group 1 Group 1 Members

Group 2 Group 2 Members

Group 3 Group 3 Members

Group 4 Group 4 Members

Key List

List of Hidden Assignments

LCP 16 CLD

LCP 16 CLD Assignments

Level 2

Level 2 Assignments

Listen

Listen Assignments

Matrix

Key Assign Matrices

Panel ID

Panel Alpha: N###

Solo Key

Solo Key

Version

Version X.X.X

Key Assign**Matrix**

Matrix List:

- Pt-to-Pt
- Party Line
- IFB
- Spcl List
- Sys Relay
- Camera ISO
- UPL
- IFB SL

Pt-to-Pt

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

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

Key Assign

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Sys Relay

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Camera ISO

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

UPL Resource

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign**IFB Spcl List**

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Auto Func

- All Call
- Auto Follow
- Auto Listen
- Auto Mute
- Auto Recip
- Auto Table
- Dim

Key Options**Auto Dial**

Numbers

1-100

1-Touch

Tap Key

Assign Pre-configured #s

Clear

Tap Key

Exclusive

Tap Key

Key Groups

Group 1-4

Tap Master Key

Tap Slave Keys

Latching

Disabled

Enabled*

Lock

Tap Key

Key Options**Panel Swap****Control****GPI Inputs****Opto 1-4****Cycle To**

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned**GPI Outputs****OC Out 1/OC Out 2****Cycle To**

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned**Relay 1- Relay 3****Cycle To**

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned**Keypad****BACK/FWD/UPG1/UPG2****Cycle To**

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned**Key Options****Key States**

Force Off

Retain

Virtual EKP's

None

EKP1 – EKP7

Solo

Tap Key

Tallies

15 seconds*

Indefinite

Turn Off

All Keys

Talk Keys

Listen Keys

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**

Cancel

Save and Restart

6 Chars

Cancel

Save and Restart

8 Chars

Cancel

Save and Restart

8-Chars (UNICODE)

Cancel

Save and Restart

Service**Aux/Mtx Inputs****Aux In 1**

Disabled
Enabled

Aux In 2

Disabled
Enabled
Ganged

Aux In 3

Disabled
Enabled

Aux In 4

Disabled
Enabled

Aux In 5

Disabled
Enabled

Aux In 6

Disabled
Enabled

Matrix In

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

Expansion

Both Brightness
Left
Right

Main Panel

Both Brightness
Left
Right

Footswitch**Mode**

Disabled*
Enabled

Service**Latched Keys**

Retain*
Unlatch

Ganged Vols

Disappearing
Fixed Offset

Intercom Mode**Alternate**

Cancel
Save and Restart

Standard

Cancel
Save and Restart

Key View

Suppress AF*
Talk/Lisn
Talk Only

Keypad**Backlight**

Activate*
Always Off
Always On

SEL Key

Auto*
Assign Groups
Quick Assign

Sequences

Classic
Standard*

Local GPIO**GPIO Inputs****Opto 1-4****Function****Key Group****Group 1 – 4**

Edge
Level*

Not Assigned*

Talk Key

Tap Key

Mode

Normal*

Track Output

GPIO Outputs**OC Out 1-2**

Not Assigned

Talk Key

Tap Key

UPG

Service

Relay 1-3

Not Assigned

Talk Key

Tap Key

UPG

Page Change

Auto

Always Allow

No Talk Keys

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

Chime

No Chime*

Test Panel

Test Panel

System Menu - with GPIO Option Card And OKI-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

Aux In 1 Filter List

Aux In 2 • none

Aux In 3 • 9600Hz

Aux In 4

Aux In 5

Aux In 6

Front Hdst

Front Mic

Matrix In

Rear Hdst

Rear Mic

OKI-2 Ch1

OKI-2 Ch2

Gating

Aux In 1 Threshold Disabled

Aux In 2 Threshold Disabled

Aux In 3 Threshold Disabled

Aux In 4 Threshold Disabled

Aux In 5 Threshold Disabled

Aux In 6 Threshold Disabled

Audio Options

Front Hdst Threshold Disabled

Front Mic Threshold Disabled

Matrix In Threshold Disabled

Rear Hdst Threshold Disabled

Rear Mic Threshold Disabled

OKI-2 Ch1 Threshold Disabled

OKI-2 Ch2 Threshold Disabled

Metering

Aux In 1

Aux In 2

Aux In 3

Aux In 4

Aux In 5

Aux In 6

Front Hdst

Front Mic

Matrix In

None

Rear Hdst

Rear Mic

OKI-2 Ch1

OKI-2 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 Mic

Rear Hdst • Front Hdst

• Rear Hdst

Both • Matrix

Left • Aux In 1

Right • Aux In 2

Rear Spkr • Aux In 3

Both • Aux In 4

Left • Aux In 5

Right • Aux In 6

OKI-2 Ch 1 • OKI-2 Ch1

OKI-2 Ch 2 • OKI-2 Ch 2

To Matrix

Audio Options**Headset Mic****Front**

Auto-Mute	Disabled
	Enabled
Mode	Disabled
	Enabled
	Switched*
Type	Auto-Detect
	Dynamic
	Electret

Rear

Auto-Mute	Disabled
	Enabled
Mode	Disabled
	Enabled
	Switched*
Type	Auto-Detect
	Dynamic
	Electret

Headset Spkr**Front**

Auto-Transfer	Disabled
	Enabled*
	Always On*
Mode	Both, Left Channel, Right Channel
	Disabled
	Switched

Rear

Auto-Transfer	Disabled
	Enabled*
	Always On*
Mode	Both, Left Channel, Right Channel
	Disabled
	Switched

Volume Control

Ganged
Individual

Audio Options**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
	Aux 4
	Aux 5
	Aux 6
	Matrix In
	OKI-2 Ch1
	OKI-2 Ch2
	Outputs
	Source List (Not all sources are available to be mixed to all destinations)
Outputs	Both Hdsts
	Both Spkrs
	Front Hdst
	Front Spkr
	Rear Hdst
	Rear Spkr
Sidetone	Unassigned
	Unassigned

Matrix Out

Normal
Hot Mic

Max Volume**Headset**

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

Audio Options**Mic Gain****Adjust**

Disabled
Front Hdst
Front Mic
Rear Hdst
Rear Mic

Level

Front Hdst Mic Gain: 0dB
Front Mic Mic Gain: 0dB
Rear Hdst Mic Gain: 0dB
Rear Mic Mic Gain: 0dB

Min Volume**Headset**

Front Min Volume: Mute
Rear Min Volume: Mute

Speaker

Front Min Volume: Mute
Rear Min Volume: Mute

Output Level

Output Lvl: +8dB

Panel Mic**Front**

Disabled
Enabled
Switched*

Rear

Disabled
Enabled
Switched*

Preamp Out

Disabled
Hot Mic
Switched*

Sidetone**Level**

Sidetone Level: -20dB

Mode

Always On
Disabled
Switched*

Audio Options**Speaker****Front**

Both, Left Channel, Right Channel
Always On*
Disabled
Switched

Rear

Both, Left Channel, Right Channel
Always On*
Disabled
Switched

Volume Control

Ganged
Individual

Tone Gen**Frequency**

1KHz
500Hz*

Tone Off*

Tone On

Display**Assign Type**

Key Assign Type

Auto Dial

1-touch Key Assignments

Chans On

List of Callers

Chime

Chime Keys

Exclusive

Exclusive Keys

Key Groups

Group 1 Group 1 Members
Group 2 Group 2 Members
Group 3 Group 3 Members
Group 4 Group 4 Members

Key List

List of Hidden Assignments

LCP 16 CLD

LCP 16 CLD Assignments

Level 2

Level 2 Assignments

Listen

Listen Assignments

Matrix

Key Assign Matrices

Display**Panel ID**

Panel Alpha: N###

Solo Key

Solo Key

Version

Version X.X.X

Key Assign**Matrix**

Matrix List:

- Pt-to-Pt
- Party Line
- IFB
- Spcl List
- Sys Relay
- Camera ISO
- UPL
- IFB SL

Pt-to-Pt

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Party Line

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign**IFB**

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Special List

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Sys Relay

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Camera ISO

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign**UPL Resource**

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

IFB Spcl List

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Auto Func

- All Call
- Auto Follow
- Auto Listen
- Auto Mute
- Auto Recip
- Auto Table
- Dim

Key Options**Auto Dial**

Numbers

1-100

1-Touch

Tap Key

Assign Pre-configured #s

Chime

Select Keys

Tap Keys

List of Callers

Duration: 5 seconds

Key Options**Clear**

Tap Key

Exclusive

Tap Key

Key Groups

Group 1 - 4

Tap Master Key

Tap Slave Keys

Latching

Disabled

Enabled*

Lock

Tap Key

Panel Swap

Control

GPI Inputs

Opto 1 - 4

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

Toggle To

EXP1 – EXP7

Unassigned

OC Out 1 - 2

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

Relay 1 - 3

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

Key Options

EXP1 – EXP7
Unassigned
MAIN
EXP1 – EXP7
Keypad
BACK/FWD/UPG1/UPG2
Cycle To
Next
Previous
Switch To
MAIN
EXP1 – EXP7
Toggle To
EXP1 – EXP7
Unassigned
Key States
Force Off
Retain
Virtual EKPs
None
EKP1 – EKP7

Solo

Tap Key

Tallies

15 seconds*
Indefinite

Turn Off

All Keys
Talk Keys
Listen Keys

OMNEO Offers**Keypanel**

OKI-2-2
AIO

Aux Inputs

OMNEO Ch1
OMNEO Ch2

Save Configuration**Configuration Saved****Service****Alphas**

4 Chars
Cancel
Save and Restart

Service

6 Chars
Cancel
Save and Restart
8 Chars
Cancel
Save and Restart
8-Chars (UNICODE)
Cancel
Save and Restart

Aux/Mtx Inputs

Aux In 1 – 6
Disabled
Enabled
Matrix In
Disabled
Enabled
OKI-2 Ch 1
Disabled
Enabled
OKI-2 Ch2
Disabled
Enabled

Baud Rate

Auto Baud
9600K Baud
76.8K Baud

Display Dim

All Panels
Brightness
Expansion
Both Brightness
Left
Right
Main Panel
Both Brightness
Left
Right

Footswitch

Mode
Disabled*
Enabled
Latched Keys
Retain*
Unlatch

Ganged Vols

Disappearing
Fixed Offset

Intercom Mode

Alternate

Service

Cancel
Save and Restart
Standard
Cancel
Save and Restart

Key View

Suppress AF*
Talk/Lisn
Talk Only

Keypad

Backlight
Activate*
Always Off
Always On
SEL Key
Auto*
Assign Groups
Quick Assign
Sequences
Classic
Default*

Local GPIO

GPIO Inputs
Opto 1-4
Function
Key Group
Group 1 – 4
Edge
Level*
Not Assigned*
Talk Key
Tap Key
Mode
Normal*
Track Output
GPIO Outputs
OC Out 1-2
Not Assigned
Talk Key
Tap Key
UPG
Tap Key
Relay 1 - 3
Not Assigned
Talk Key
Tap Key
UPG

Service**OMNEO Setup****OMNEO KP**

Device Name
X.X.X.X

DHCP

Disabled
Enabled

IP Parameters

IP Address
X.X.X.X

Gateway

X.X.X.X

Netmask

X.X.X.X

Domain

<local>

DNS Server 1

X.X.X.X

DNS Server 2

X.X.X.X

Page Change

Auto
Always Allow
No Talk Keys

Reset Cfg

Cancel
Do Reset
Configuration Reset

Scrn Saver

Activate
Delay
Delay Time: 1 Hour*
Mode
Display Off
Text*

Set Address

Poll ID: 1*

Snoop Tally

Chime
No Chime*

Test Panel

Test Panel

*System Menu - no Option Cards***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
 Matrix In
 Panel Mic

Filter List

- none
- 9600Hz

Gating

Hdst Mic
 Matrix In
 Panel Mic

Threshold Disabled
 Threshold Disabled
 Threshold Disabled

Metering

Hdst Mic
 Matrix In
 None
 Panel Mic

Mixing

Headset
 Both
 Left Chan
 Right Chan
 Speaker
 To Matrix

Source List (Not all sources are available to be mixed to all destinations)
 • Hdst Mic
 • Matrix
 • Panel Mic

Headset Mic

Auto-Mute

Disabled
 Enabled

Mode

Disabled
 Enabled
 Switched*

Type

Auto-Detect
 Dynamic
 Electret

Audio Options**Headset Spkr**

Auto-Transfer

Disabled
 Enabled

Mode

Both, Left, Right
 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)

Outputs

Matrix In
 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

Max Volume

Headset

Max Volume: +10dB

Audio Options**Mic Gain**

Adjust

Disabled

Hdst Mic

Panel Mic

Level

Hdst 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**Auto Dial**

1-touch Key Assignments

Chans On

List of Callers

Chime

Chime Keys

Exclusive

Exclusive Keys

Key Groups

Group 1

Group 1 Members

Group 2

Group 2 Members

Group 3

Group 3 Members

Group 4

Group 4 Members

Key List

List of Hidden Assignments

LCP 16 CLD

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

Display**Assign Type**

Key Assign Type

Key Assign**Matrix**

Matrix List:

- Pt-to-Pt
- Party Line
- IFB
- Spcl List
- Sys Relay
- Camera ISO
- UPL
- IFB SL

Pt-to-Pt

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Party Line

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

IFB

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign**Special List**

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Sys Relay

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Camera ISO

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

UPL Resource

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Key Assign**IFB Spel List**

Scroll List:

- Talk Lvl 1
- Listen
- Talk + AF
- Talk + AL
- Talk + AT
- Talk + AM
- Talk + AR
- Talk Lvl 2

Auto Func

- All Call
- Auto Follow
- Auto Listen
- Auto Mute
- Auto Recip
- Auto Table
- Dim

Key Options**Auto Dial**

Numbers

1-100

1-Touch

Tap Key

Assign Preconfigured #s

Chime

Duration

Duration: 5 seconds

Keys

Tap Key

Clear

Tap Key

Exclusive

Tap Key

Key Groups

Group 1-4

Tap Master Key

Tap Slave Keys

Latching

Disabled

Enabled*

Key Options**Lock**

Tap Key

Panel Swap

Control

GPI Inputs

Opto 1 – Opto 4

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

OC Out 1 and OC Out 2

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

Relay 1 – Relay 3

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

Keypad

BACK, FWD, UPG1, UPG2

Cycle To

Next

Previous

Switch To

MAIN

EXP1 – EXP7

Toggle To

EXP1 – EXP7

Unassigned

Key Options

Key States

Force Off

Retain

Virtual EKP's

None

EKP1 – EKP7

Solo

Tap Key

Tallies

15 seconds*

Indefinite

Turn Off

All Keys

Talk Keys

Listen Keys

Save Configuration

Configuration Saved

Service**Alphas**

4 Chars

Cancel

Save and Restart

6 Chars

Cancel

Save and Restart

8 Chars

Cancel

Save and Restart

8-Chars (UNICODE)

Cancel

Save and Restart

Aux/Mtx Inputs

Matrix In

Disabled

Enabled

Baud Rate

Auto Baud

76.8K Baud

9600K Baud

Display Dim

All Panels

Brightness

Service

Expansion

Both

Left

Right

Brightness

Main Panel

Both

Left

Right

Brightness

Ganged Vols

Disappearing

Fixed Offset

Intercom Mode

Alternate

Cancel

Save and Restart

Standard

Cancel

Key View

Suppress AF*

Talk/Lisn

Talk Only

Keypad

Backlight

Activate*

Always Off

Always On

SEL Key

Auto*

Assign Groups

Quick Assign

Sequences

Default*

Classic

Reset Cfg

Cancel

Do Reset

Configuration Reset

Page Change

Auto

Always Allow

No Talk Keys

Service**Scrn Saver**

Activate

Delay

Delay Time: 1 hour*

Mode

Display Off

Text*

Set Address

Poll ID: 1*

Snoop Tally

Chime

No Chime*

Test Panel

Test Panel

Introduction

Connecting directly to the RP-1000 color keypad, the RP-1932 (Expansion Panel Color Display) provides an additional 32 keys per expansion panel to your intercom application.

Use the supplied RJ-45 expansion cable (included with the RP-1932) and refer to Figure 43, “Expansion Panel Cabling,” on page 201, for information on how to connect up to three (3) additional expansion panels (if the intercom is configured for 128 keys).

Specifications

LCD Display		
Size	5.1” LCD	
Resolution	576 x 172 (RGB)	
Connector		
EXP IN		RJ-45
EXP OUT		RJ-45
J1		RJ-45
General		
RP-1932		
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 3.47”H x 3.25”D (482.6mm x 88.138mm x 82.55mm)	
Weight	6.30lb (2.85kg)	
Power Consumption	@ 110VAC – 10W	
	@ 220VAC – 21W	
Input Power	100~240VAC, 50–60Hz	

RP-1932 Expansion Panel Reference View

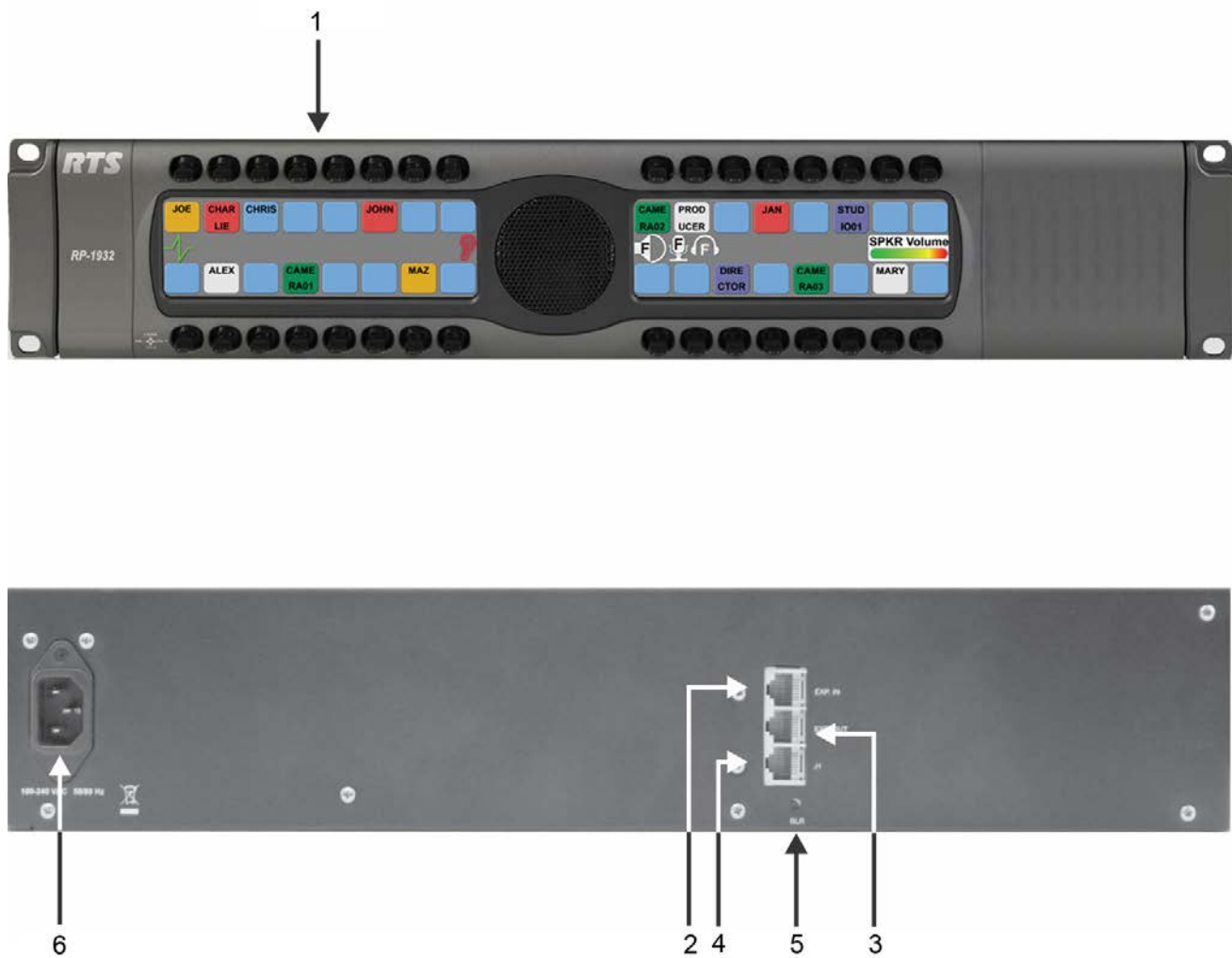


FIGURE 42. RP-1932 Expansion Panel Reference View - Front and Rear

1. Expansion Keys
2. RJ-45 Expansion IN
3. RJ-45 Expansion OUT
4. RJ-45 J1 Connector (not used on the EKP)
5. Boot Loader - for more information, see “Download Firmware Using the BLR Function” on page 64.
6. AC/Power

Expansion Panel Cabling Reference

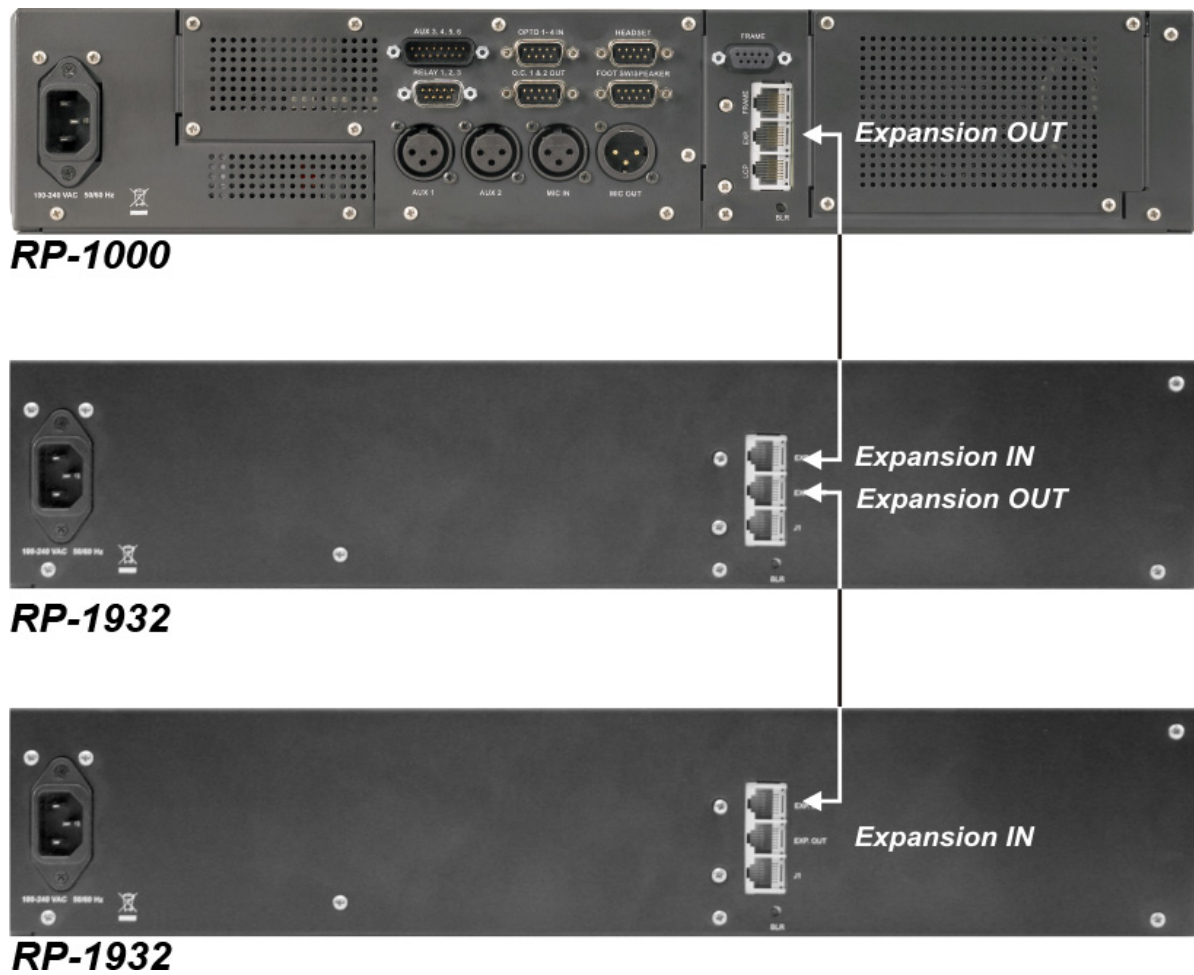


FIGURE 43. Expansion Panel Cabling

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

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

RVON-2 for RP-1000 Series Keypanel

General Description of the RVON-2 Voice-over Network Card

Installed directly into RP-1000 Series keypanels, the RVON-2 provides **VoIP** (Voice over Internet Protocol) communications for the RTS ADAM Intercom family. In general, VoIP means sending voice information in digital form using discrete packets rather than the traditional hard-wire analog audio over copper connection. The RVON-2 delivers an integrated solution for connecting RP-1000 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 RP-1000 Series keypanels, 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 at 2 Bit rates.

The RVON-2 reaffirms RTS' history of providing support for the latest technology in a 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	Users have 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.
<p>NOTE: The user does not need to remove the RVON-2 card to switch to AIO mode. VoIP and AIO audio is selected via the keypanel menu (RVON Offers).</p>	

Specifications

DIGITAL

TABLE 9. 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

PHYSICAL

- 2.5”W x 5.75”L (63.5mmW X 146.05mmL)

Default Addresses for the RVON Product Line

TABLE 10. Default IP Addresses 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 Keypanel	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	192.168.0.7	255.255.0.0
Cronus	192.168.0.8	255.255.0.0
Zeus III	192.168.0.9	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 11. Compatibility Requirements for the RVON-2 card

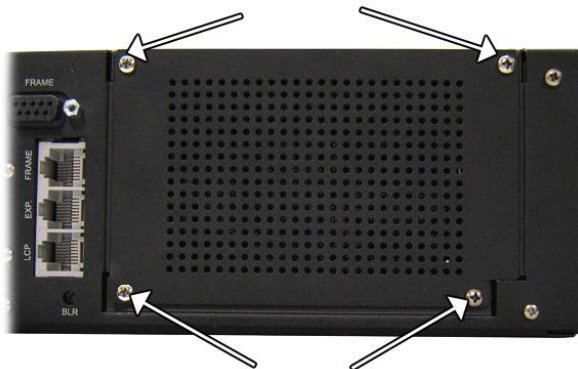
Description	Version
Master Controller	9.19.0 or later
Peripheral Controller	10.10.0 or later
DBX	1.10.1 or later
AZedit	2.06.06 or later
RVON-8	2.1.5 or later
RP-1000 Series	2.0.0 or later

Installation of the RVON-2 Card

RP-1000

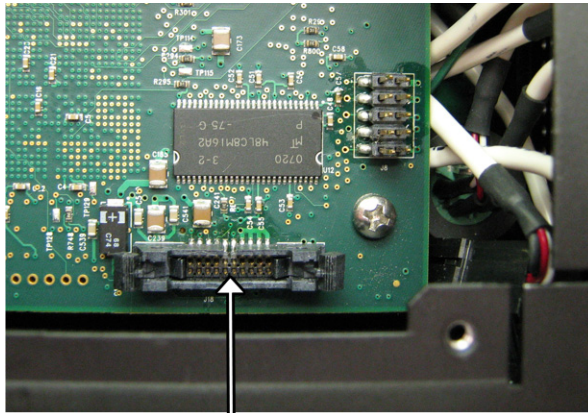
To install the RVON-2 Option card in the RP-1000, do the following:

1. Power **off** the RP-1000.
2. Using a screwdriver, remove the **four (4) screws** holding the RP-1000 Option Card blank.



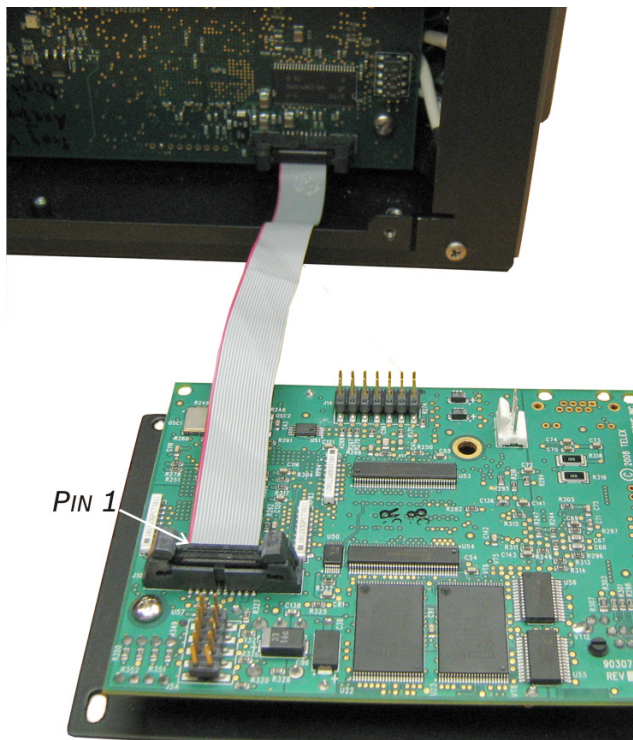
3. Securely connect the **RVON-2 Option Card ribbon cable to the J18 connector of the RP-1000 main board.**

CAUTION: Do NOT connect the ribbon cable backwards, unintended results may occur.

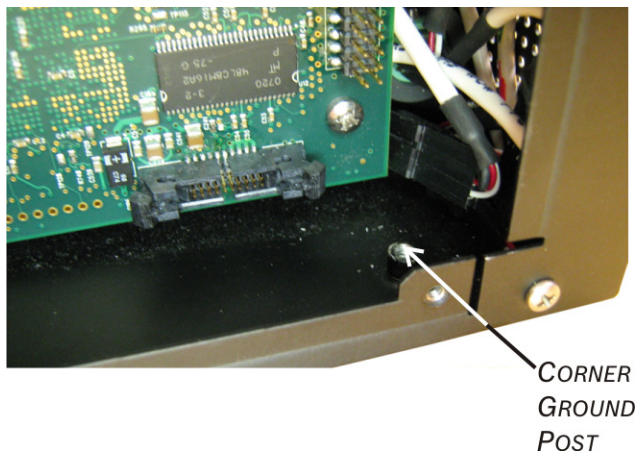


J18 Connector

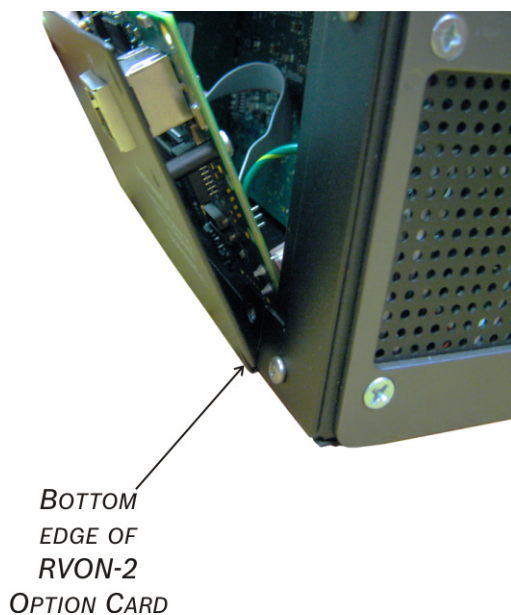
NOTE: Take care to make sure there is no twist in the ribbon cable and the red ribbon is aligned on the left.



4. Using a screwdriver, connect the **RVON-2 ground strap** using the specified screw shown in to the corner ground post in the RP-1000.



5. Insert the **bottom edge** of the RVON-2 Option Card in the RP-1000 unit.



6. Carefully tilt the **top edge of the RVON-2 option card** to be flush with the RP-1000 unit.
7. Line up the **screw holes of the RVON-2 option card** with the screw holes on the RP-1000 unit.
8. Using a screwdriver, replace **the screws**, securing the RVON-2 Option Card in place.
9. Power **on** the RP-1000 unit.

DKP 16 CLD

To install the RVON-2 option card into the DKP 16 CLD, do the following:

1. Power **off** the DKP 16 CLD.
2. Remove the **hex screws** and **pan head screws** from the bottom of the unit.

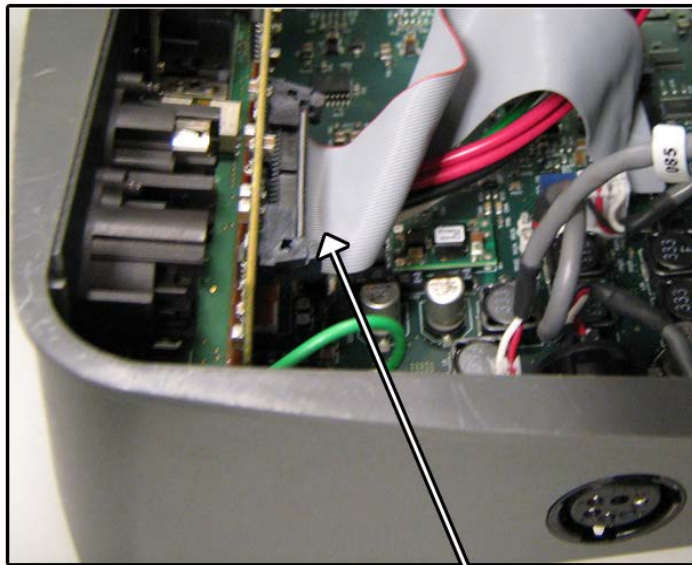


3. Carefully lift the **DKP top panel** off the unit and set it aside.

IMPORTANT: The top panel cannot be removed entirely because of the many other connectors within the unit.

4. If a GPIO Option Card is installed, continue to the **next step**, otherwise, skip to step 7.

5. Disconnect the **ribbon cable connected at J6** on the GPIO Option Card and tuck it towards the front of the unit so it is out of the way.



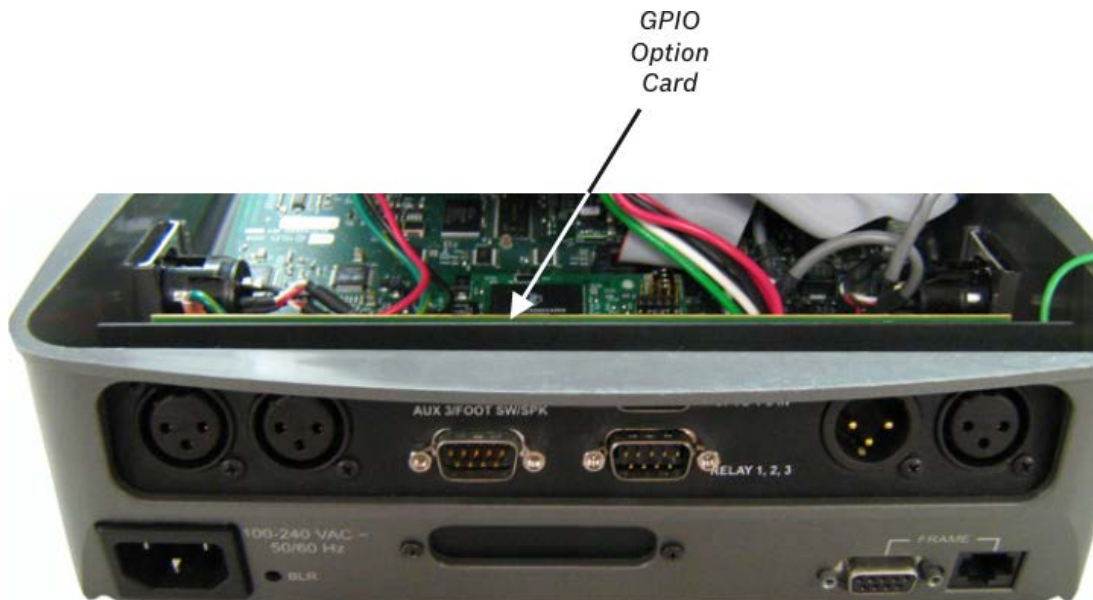
Ribbon Cable



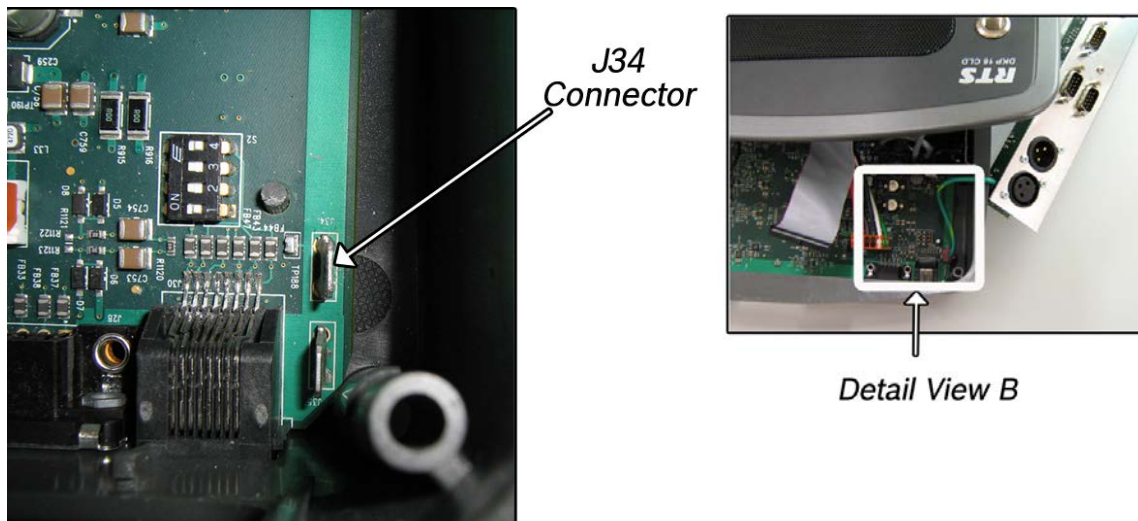
Detail View A

Detail View A

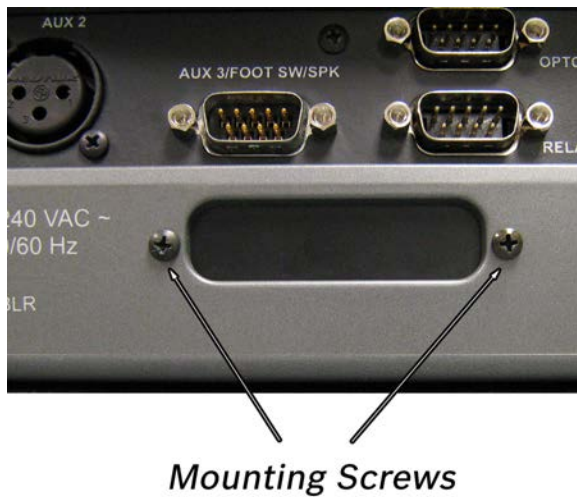
6. Gently, yet firmly, lift up and out on the **GPIO option card** to unseat the card and set it aside.



7. Carefully disconnect **J34** from the main board.

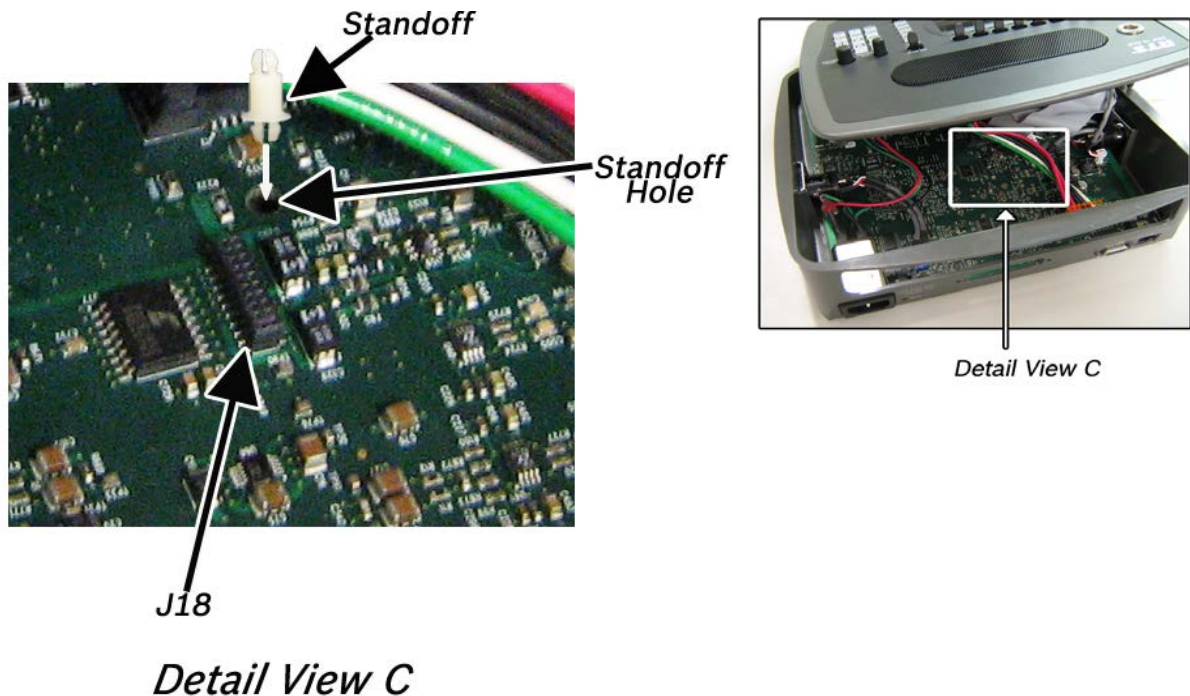


8. Using a screwdriver, remove the **mounting screws** from the DKP 16 CLD RVON-2 blank plate and remove the blank.



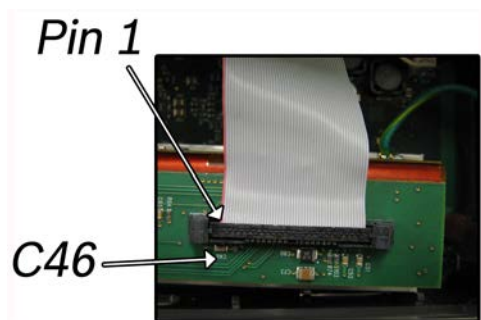
9. Remove the **standoff** from the RVON-2 Option Card.

10. Attach the **standoff** to the main board of the DKP 16 CLD unit.



11. Carefully line up the **standoff hole on the RVON-2 Option Card** with the **standoff on the DKP 16 CLD main board**. By doing this, you ensure J10 and J18 are aligned to seat properly.
12. Gently press down on the **RVON-2 Option Card** with enough force to pop the option card in place.
13. Attach the **RVON-2 Option Card** to the DKP 16 CLD frame using the same mounting screws as removed in step 7.
14. Reconnect the **GPIO Option Card** to J34 (see step 6).
15. Place the **GPIO Option card** in the DKP 16 CLD unit.

CAUTION: Do NOT connect the ribbon cable backwards, unintended results may occur. Pin 1 (designated by the red wire) lines up with the capacitor C46.



16. Replace the **ribbon cable** to J6 of the GPIO Option Card (see step 4).
17. Replace the **top panel of the DKP 16 CLD unit** and secure it with the two (2) hex screws and two (2) pan head screws.

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.

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 keypad display to navigate to the different menu items.



FIGURE 44. RVON Offers Information Menu Option

RVON-2 Option Card Matrix Connection

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

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

- AIO* – AIO-8, AIO-16, Cronus. When the AIO connection is used, both RVON Ch1 and Ch2 are available as Aux Input Channels. Use the Frame connection on the back panel of the keypanel.
- RVON-2* – RVON-16, RVON-8, RVON-C, RVON-I/O (in remote mode). You can only use RVON 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.

RVON-2 Option Card Matrix Port Configuration

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

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

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

1. On the RP-1000 keypad, press **MENU**.
The Information menu appears.
2. Using the arrow keys, select **RVON Offers**.
3. Press **SEL**.
Keypanel and Aux Input appear in the display window.



4. Using the arrow keys, select **Keypanel**.
5. Press **SEL**.
RVON-2 and AIO¹ appear in the display window.



6. Select the **Matrix connection type** you want to use.
A list of available ports appears.
7. Using the arrow keys, select the **port** you want to use.
An arrow appears next to the port.
8. 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.

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

RVON-2 Option Card Aux Port Configuration

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

1. On the RP-1000 keypad, press **MENU**.
The Information menu appears.
2. Using the arrow keys, select **RVON Offers**.
3. Press **SEL**.
Keypanel and Aux Input appear in the display window.
4. Using the arrow keys, select **Aux Input**.



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



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

Configure a RVON card in the Frame using AZedit to contact the RVON-2

To configure an RVON-8, RVON-16 or RVON-C card to connect to an 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 (1) channel that can be configured as the matrix port. The second channel is always an AUX port.
3. From the RVON Channel drop down list, select the **channel** to be used to communicate to the RVON-2 card across the network.
 4. In the Device IP field, enter the **IP Address** for the RVON-2 card.
 5. From the Device Type drop down list, select **RVON Keypanel**.
 6. From the Device Channel drop down list, select **Channel 1** or **Channel 2**.
There may be two (2) channels listed, but a matrix port connection can only be made through channel 1. Channel 2 can be used as an Aux Input.
 7. From the CODEC Type drop down list, select the **CODEC type**.

8. From the Packet Size drop down list, select the **size** of each audio packet.

NOTE: A CODEC is an algorithm used to compress audio. Codecs dictate the quality of audio you hear and the network bandwidth used. The packet size determines how much audio data is carried across the network in each transmitted packet. The CODEC type and packet size chosen require different amounts of bandwidth from the network. As with the CODEC type, the packet size you choose for the audio transfer affects the audio you hear and the bandwidth you use over the network. The larger the audio packet you choose to use, the lower the bandwidth used. However, the larger packet size can result in a higher delay and longer gaps if the packet is lost. On the other hand, smaller packet sizes result in larger bandwidth use, but lower delays and smaller gaps if the packet is lost. The Intercom System Engineer and the Network Designer may want to work together in choosing the CODEC type and packet size suitable for the size of the network, so degradation of network resources does not occur.

9. Select **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

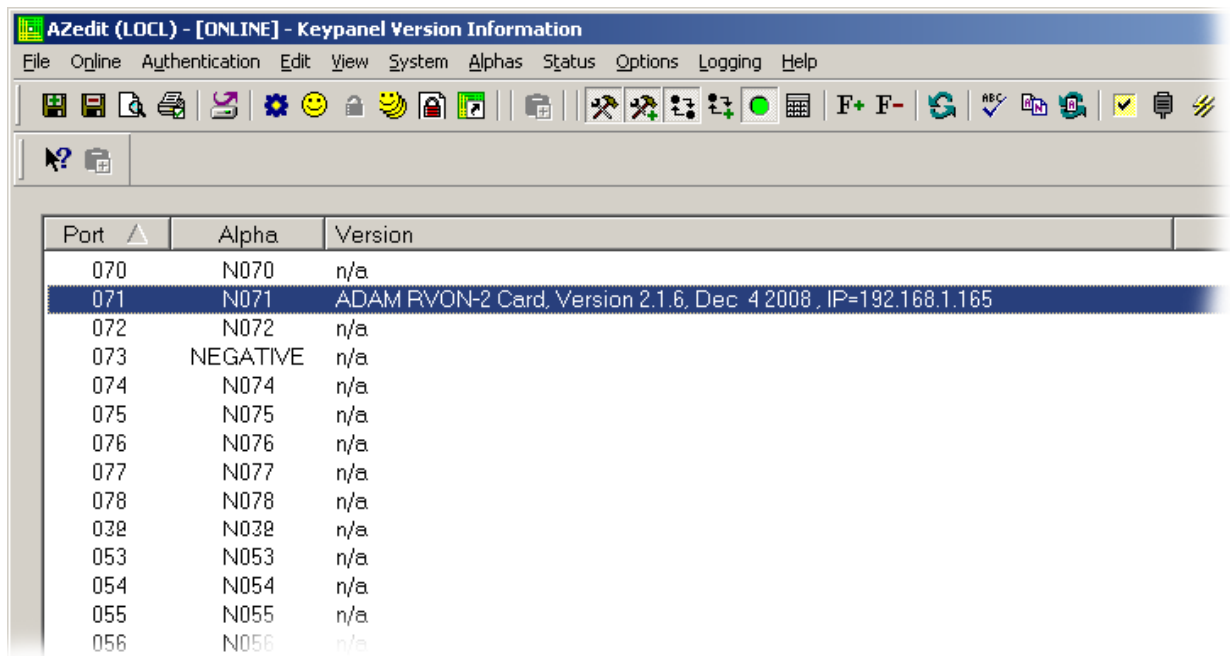
NOTE: AZedit sends firmware directly to the RVON-2 card over Ethernet. This is different from other I/O cards (except the RVON-8) that receive the firmware from the Master Controller. For this reason, verify the PC running AZedit is able to contact the RVON-2 card via the network, or is configured with a Gateway IP Address that can contact the RVON card. If it is not, AZedit cannot 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:

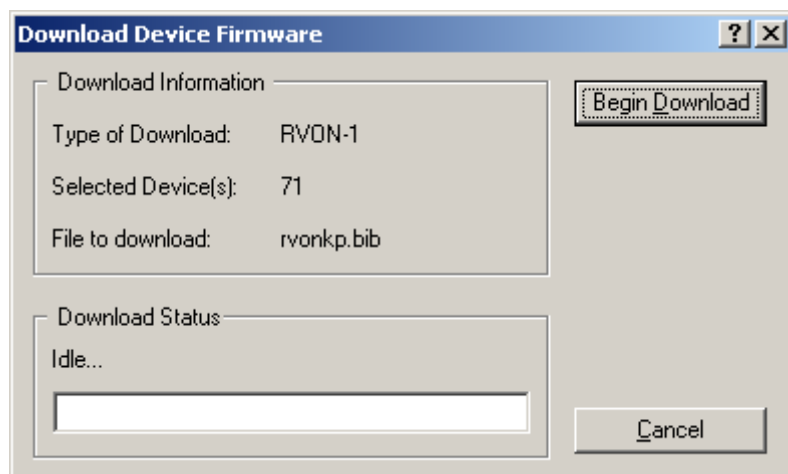
1. Open **AZedit**.
2. From the Status menu, select **Software Versions** and then **Keypanel**.
The Keypanel Version window appears.



3. On the Keypanel Version Information window, select the **Show RVON/OMNEO Versions** check box.
4. Select and right click the **keypanel** which has the RVON-2 installed, and then select **Download RVON-2**.
The Download Device Firmware window appears.
5. Using the Browse feature, browse to the **file** to be downloaded.

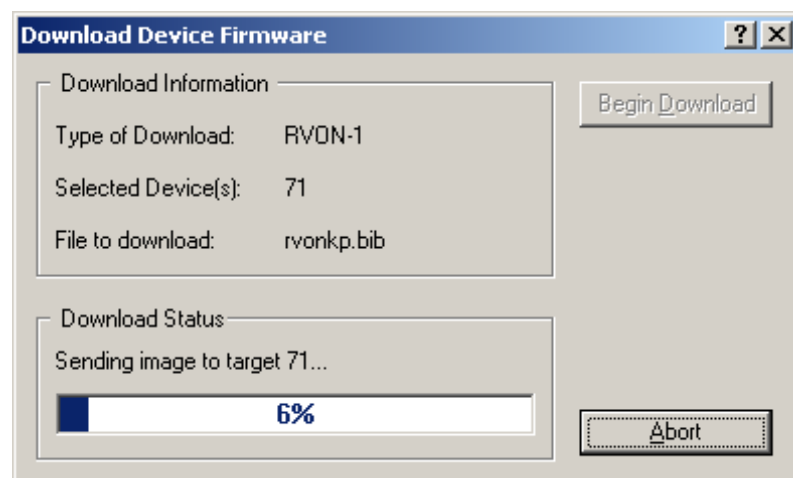
6. Click **Open**.

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 one (1) or two (2) minutes 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*. Once the download is complete, the version cannot be verified 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

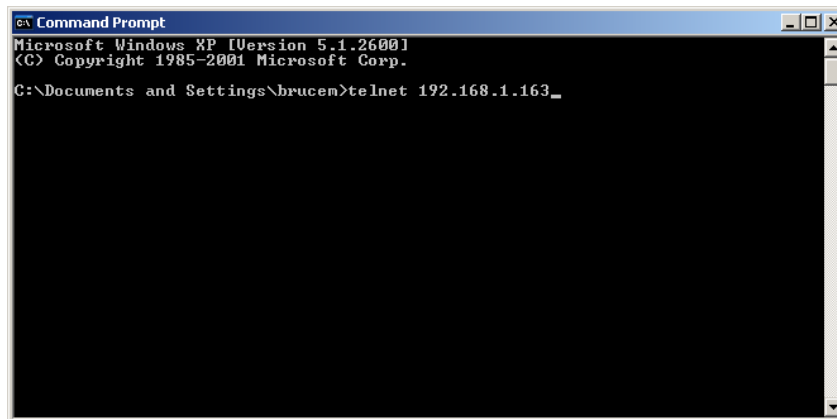
How to Configure the RVON-2 using Telnet

If you cannot access the physical RP-1000 Series 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.

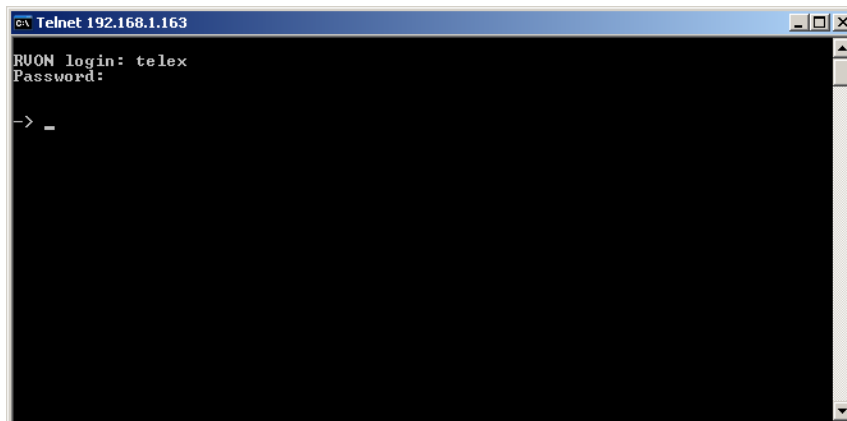
NOTE: These instructions are to help you get to the Telnet screens and give you an overview of what can be done. This is not an all inclusive document. Not every action that can be performed is contained within the document.

To **display the settings for the RVON-2 Card**, do the following:

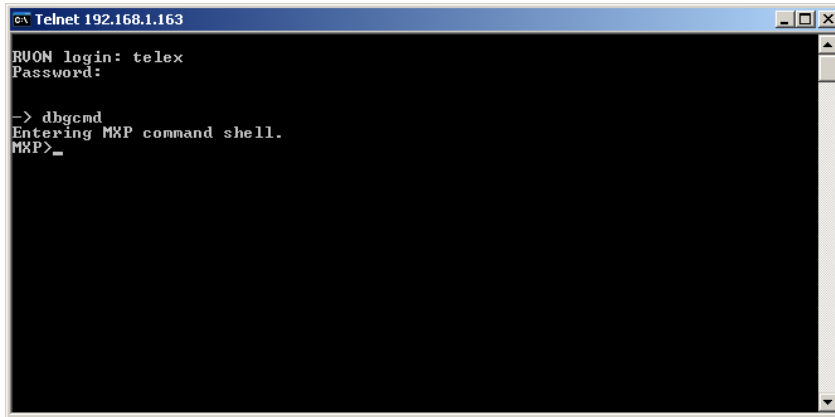
1. Open a **command prompt**.
2. At the prompt, type **telnet [IP ADDRESS]** (The [IP Address] is the IP Address assigned to the RVON-2 card).



3. Press **Enter**.
The RVON logon window 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 command prompt appears.
8. At the command prompt, type **dbgcmd** to access the debug command screens.



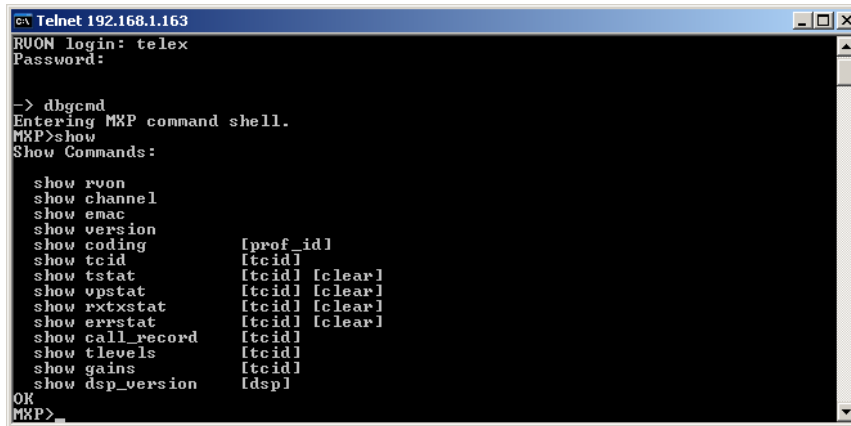
```

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 command prompt, type **Show**.
11. Press **Enter**.
The show commands window and 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>_

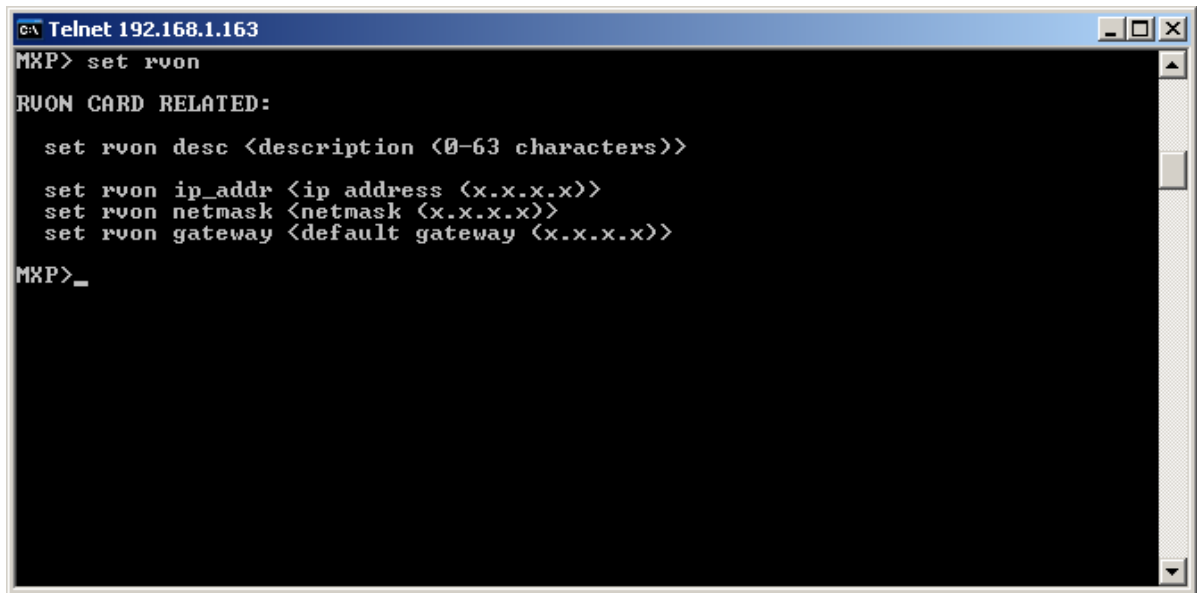
```

12. At the command 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**.
2. At the command 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>_
```

set rvon desc
set rvon ip_addr
set rvon netmask
set rvon gateway

Allows you to edit the RVON description up to 63 characters.
Allows you to edit the IP Address (all four (4) octets).
Allows you to edit the netmask (all four (4) octets).
Allows you to edit the gateway (all four (4) octets).

```

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>
  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>

```

set channel desc	Allows you to edit the channel description (up to 63 characters).
set channel dest_ip	Allows you to edit the destination IP Address the RVON-2 card communicates with.
set channel dest_type	Allows you to edit the destination type for the device the RVON-2 card talks with.
set channel dest_chan	Allows you to edit the destination channel of the device the RVON-2 talks with.
set channel chan_codec	Allows you to edit the CODEC to be used for transferring the data between the two (2) devices.
set channel vad_threshold	Allows you to edit the vad threshold for the channel.
set channel input_gain	Allows you to edit the input gain for the RVON-2 card.
set channel output_gain	Allows you to edit the output gain for the RVON-2 card.
set the channel onhook	onhook = hang up If the channel was already connected, going off-hook has no effect (it is already off-hook if connected). Going onhook hangs up the call, and it should then try to reconnect. If the channel was not already connected, going off-hook causes it to try and establish a connection. Going onhook in this state has no effect (it is already onhook if idle).
set channel off-hook	off-hook = connected If the channel was already connected, going off-hook has no effect (it is already off-hook if connected). Going onhook hangs up the call, and it should then try to reconnect. If the channel was not already connected, going off-hook causes it to try and establish a connection. Going onhook in this state has no effect (it is already onhook).

OKI-2 - OMNEO Keypanel Interface

OKI-2 Installation

Firmware Requirements:

- RP-1000 Firmware version 2.0.0 or later

IMPORTANT: The keypanel firmware must be updated before you install the OKI-2 module into the keypanel.

To **install the OKI-2 Module**, do the following:

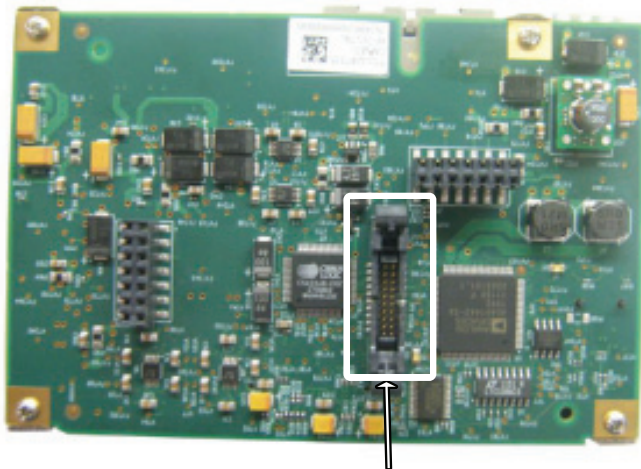
1. Power **off** the RP-1000.
2. Using a screwdriver, remove the **four (4) screws holding the RP-1000 Option Card blank** to the chassis. Set them aside for use later.



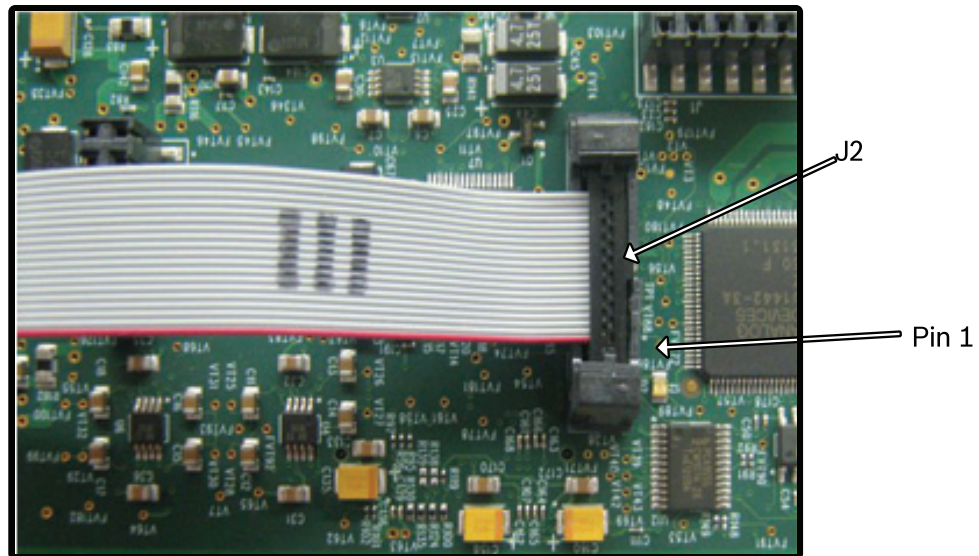
**RP-1000
Rear Panel**

3. Securely connect the **OKI-2 ribbon cable to J2** on the OKI-2 board set.

NOTE: Align the red stripe with Pin 1.



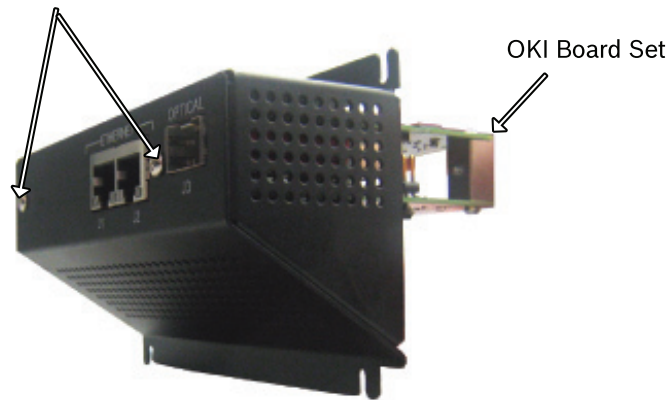
Detail A



Detail A

4. Using the two (2) screws provided, install the **board set in the OMI enclosure**.

Provided Pan Head Screws



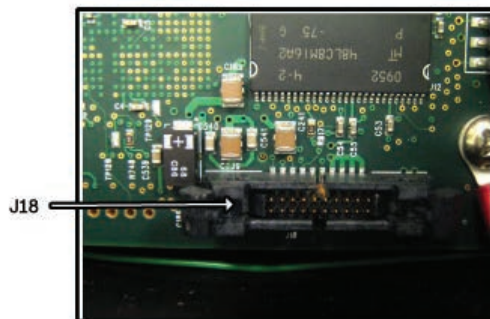
5. Attach the **other end of the ribbon cable to J18** on the RP-1000 main board.

NOTE: Do NOT connect the ribbon cable backwards, unintended results may occur. See picture for proper placement.

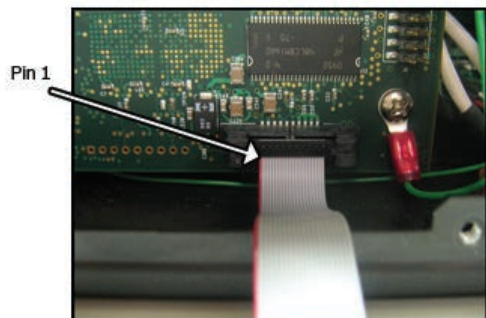
RP-1000 Main Board



Detail B



Detail B



6. Carefully insert the **OKI-2 board set** into the RP-1000 chassis.

CAUTION: Be sure to clear any existing wires in the RP-1000 for proper installation of the OKI-2 board set.



7. Using the four (4) screws you removed in step 2, attach the **OKI-2 enclosure** to the RP-1000 chassis.
8. Power **on** the RP-1000.

Unicode Support

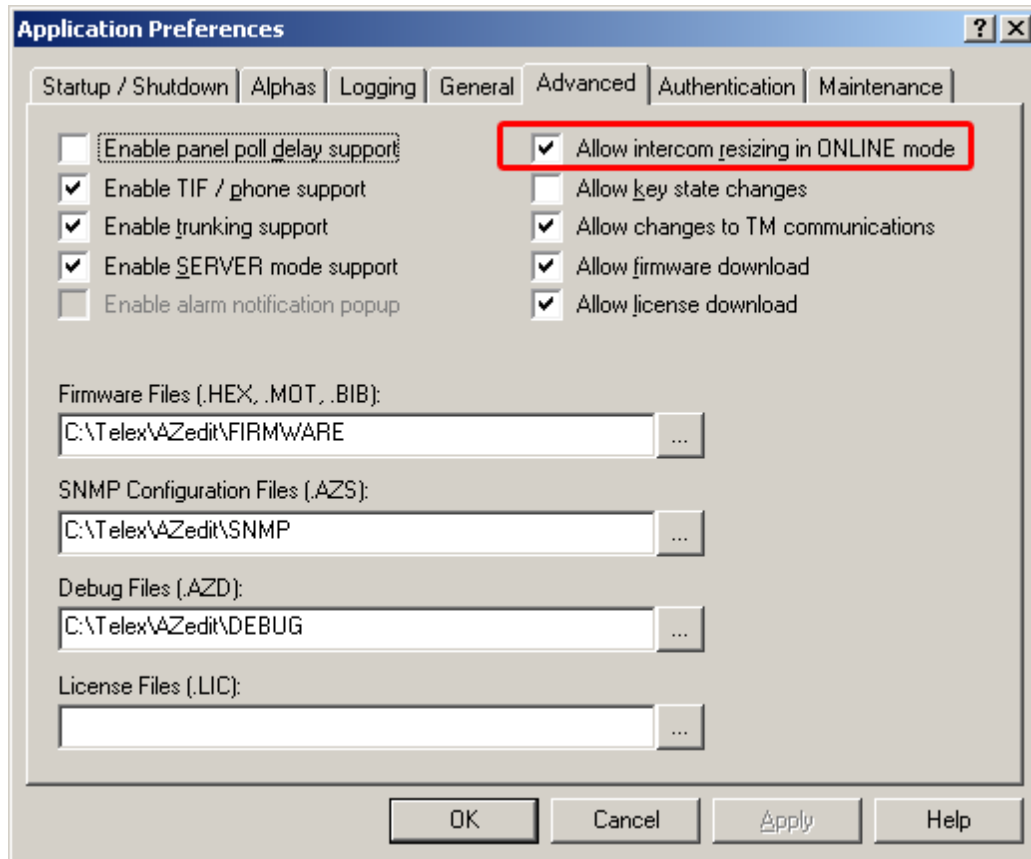
AZedit and Unicode Support

Minimum firmware revision requirements for unicode 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
- RP-1000 v2.0.0
- KP12/4U v1A.0.26 (Cyrillic character set only)
- Font file KP32-CLD-UNICODE.KPF v0.05

To **configure AZedit for Unicode operation**, do the following:

1. On the RP-1000 Series keypad, select **Service|Alphas|8 Chars (Unicode)|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.

IMPORTANT: You are about to erase the entire intercom setup! Be sure to save your file.

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 two columns of settings. The left column includes 'Talk levels' (2), 'Listen levels' (1), 'Panels with Key Labels' (34), 'Key Labels Per Panel' (64), and a list of checkboxes. The right column includes 'Setup pages per port' (4), 'Physical panels per port' (4), 'Keys per setup page' (16), and 'Maximum IFB priority' (3). At the bottom right is a 'Reset to Defaults' button. At the very bottom are 'Apply', 'Cancel', 'Test', and 'Help' buttons. The 'Enable Unicode Alphas' checkbox in the left column is checked and highlighted with a red rectangle.

Resource	Value
Talk levels	2
Listen levels	1
Panels with Key Labels	34
Key Labels Per Panel	64

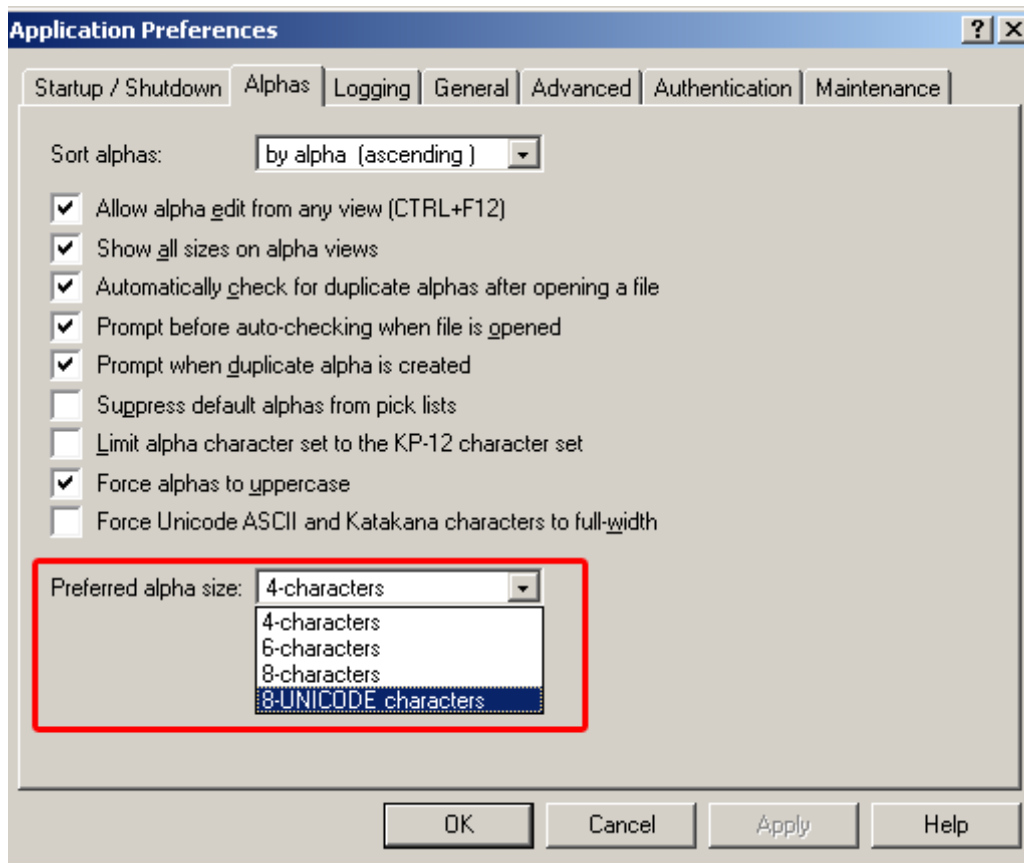
Option	Value
Use input alphas	<input type="checkbox"/>
Auto listen functions pick up all talk levels	<input type="checkbox"/>
Always stack callers in call waiting window	<input type="checkbox"/>
Configure onboard GPI Outputs in FR9528 mode	<input type="checkbox"/>
Allow for remote trunk master	<input type="checkbox"/>
Enable Unicode Alphas	<input checked="" type="checkbox"/>
Don't generate tallies for in-use trunk assignments	<input type="checkbox"/>
Don't generate tallies for off-hook TIF assignments	<input type="checkbox"/>
Don't generate indefinite PL tallies	<input type="checkbox"/>
Generate snoop tallies	<input type="checkbox"/>

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.

Notes

Bosch Security Systems, Inc.

12000 Portland Avenue South
Burnsville, MN 55337 U.S.A.

www.boschcommunications.com