

## *PAP-5032*

### *Program Assignment Panel*

### *Technical Manual*

*up to and including version 1.0.0*



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SEE MARKING ON BOTTOM/BACK OF PRODUCT.		

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

**WARNING:** THE MAIN POWER PLUG MUST REMAIN READILY OPERABLE.

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

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

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

~	This product is AC only.
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**WARNING:** THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE, IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

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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*

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This manual describes the installation, programming, and operating procedures for the RTS Model PAP-5032 Program Assign Panel. The PAP-5032 provides the ability to assign one of up to 16 program sources to up to 16 different IFB destinations. The PAP-5032 can be extended up to 64 program sources and 64 IFB destinations via standard EKP expansion panels. The PAP-5032 works with ADAM, ADAM-M and ODIN intercom systems.

---

## *Features*

- Real-time routing of program audio to IFB outputs
- Audio monitoring of program inputs or IFB outputs
- Real-time gain adjustment of program input and IFB output levels
- Support for analog, OMNEO, or RVON connections to a normal intercom port

**NOTE:** RVON support requires downloading alternate firmware to the PAP-5032 panel.

## Specifications

### LCD Display

Active Area .....120.10 mm (wide) x 35.86 mm (high)  
 Dot Resolution .....576 x 172 pixels  
 Color Resolution .....16-bit (64 K) RGB color  
 View Angle.....80 degrees (typical; all directions)

### Power Supply:

Type:..... External DC  
 AC Input:..... 100–240 VAC 50/60 Hz


### General Purpose Inputs and Outputs:

#### Outputs

Type (relays)..... SPDT  
 Contact Rating..... 1 AMP @ 30 VDC

#### Inputs

Type.....Optically Coupled  
 Input Voltage ..... 5-18 VDC on A+

♦A+ is internally pulled to 5VDC. Connect K- to  to activate.♦

### Inputs:

#### Matrix

Type..... Balanced  
 Typical Input Level ..... +8 dBu  
 Typical Input Impedance ..... >10 kΩ  
 Maximum Input Level..... +20 dBu  
 Supported Bandwidth..... 100 Hz to 20 kHz

### Aux 1 and Aux 2

Type..... Balanced  
 Typical Input Level ..... +8 dBu  
 Typical Input Impedance ..... >10 kΩ

### Outputs:

#### LINE Out

Type..... Balanced  
 Typical Output Level..... +8 dBu  
 THD+N% ..... <0.20%  
 Typical Output Impedance ..... 600 Ω  
 Maximum Output Level..... +20 dBu  
 Frequency Response..... 100 Hz to 20 kHz

### Headset - Front, Rear, Left, Right

Maximum Output Power ..... 125 mW for 32 Ω load  
 Speaker Impedance ..... 16Ω and above  
 THD+N% ..... <0.20%  
 Frequency Response..... 100 Hz to 20 kHz

### Speaker - Rear

Maximum Output Power..... 5 W for 8 Ω load  
 Speaker Impedance ..... 4 Ω and 8 Ω  
 THD+N% ..... <0.20%  
 Frequency Response..... 100 Hz to 20 kHz

### Speaker - Front

SPL .....84 dBSPL for 1 kHz sine wave @ 1 meter

### Digital:

#### OMNEO Channels

Typical OMNEO Latency ..... 1 ms  
 Frequency Response.....20 Hz - 20 kHz

### Environmental:

#### Dimensions

17.39" W (without rack ears) x 3.46" H x 3.88" D  
 (441.82 mm x 87.96 mm x 98.5 mm  
 [111.11 mm including volume knobs and lever keys])

#### Weight

PAP-5032 ..... 4.89 lb (2.22 kg)  
 Power Supply ..... 0.53 lb (0.24 kg)  
 Power Supply  
 Mounting Bracket..... 0.30 lb (0.14 kg)

#### Temperature

Operating..... 0° C to 55° C (32° F to 131° F)  
 Storage..... -20° C to 70° C (-4° F to 158° F)

### Power Consumption:

Nominal..... 13 Watts  
 Maximum ..... 18 Watts  
 Maximum Volt Amp..... 48 VA

***Certification:  
CE Compliance******Emissions - All are Class A***

- KN 32
- EN55032
- AS/NZS CISPR 32
- VCCI V-3
- ICES-003
- FCC Part 15 Subpart B
- CNS13438

***Immunity***

- KN 35
- EN 55024

***Safety***

- UL 60950-1
- CSA C22.2 No. 60950-1-07
- IEC 60950-1
- EN 60950-1
- CB Report

## Reference view – PAP-5032

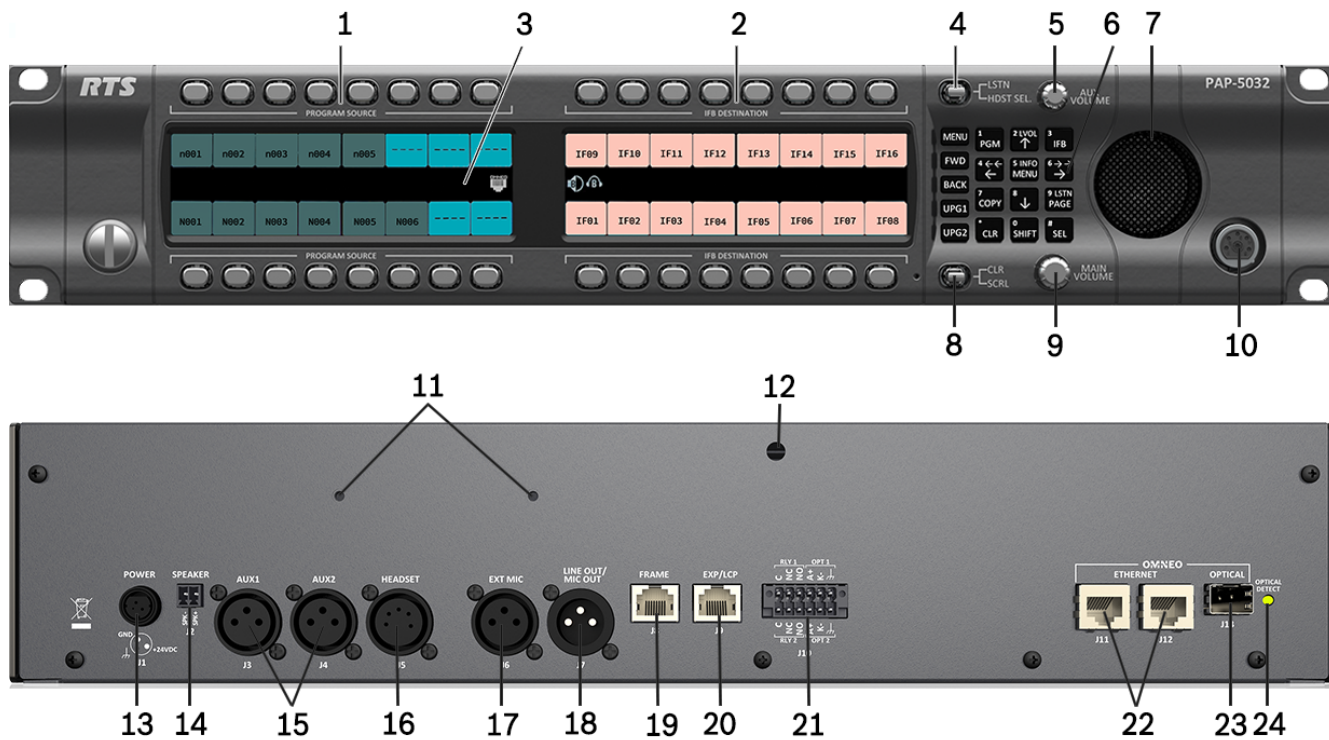


FIGURE 1. PAP-5032 Reference View

1. Program Source Keys
2. IFB Destination Keys
3. High Resolution, Wide-Angle LCD Display
4. LSTN/HDST SEL Lever Key
5. AUX VOLUME Knob/Menu Navigation
6. Keypad
7. Main Speaker (Front)
8. CLR/SCRL Lever Key
9. MAIN VOLUME Knob
10. Headset Connector (Front Panel)
11. Power Supply Bracket Mounting Holes
12. Power Supply Cable Tie Mounting Hole
13. POWER Connector
14. SPEAKER Rear Connector (2-position Terminal Block)
15. AUX 1 and AUX 2 Connector
16. HEADSET Connector (Rear Panel)
17. EXT MIC Connector – Not Supported
18. LINE OUT/MIC OUT Connector
19. FRAME Connector
20. EXP/LCP Connector (LCP not supported)
21. GPIO Connector (12-position Terminal Block)
22. OMNEO ETHERNET Connector (See “Ethernet Connector” on page 30)
23. OMNEO OPTICAL (fiber) Connector  
SM SFP Module (F.01U.278.502)  
MM SFP Module (F.01U.278.503)
24. OMNEO OPTICAL DETECT (fiber) Indicator LED

## Connector pinouts

Power Supply: J1	
Pin	Assignment
Pin 1	24 VDC
Pin 2	GND
Pin 3	Chassis GND

Rear Speaker: J2	
Pin	Assignment
Pin 1	Rear Speaker -
Pin 2	Rear Speaker +

Aux 1: J3	
Pin	Assignment
Pin 1	GND
Pin 2	AUX 1 IN +
Pin 3	AUX 1 IN -

AUX 2: J4	
Pin	Assignment
1	GND
2	AUX 2 IN +
3	AUX 2 IN -

Rear Headset: J5	
Pin	Assignment
1	REAR_HS_MIC_IN -
2	REAR_HS_MIC_IN +
3	REAR_HS_COMMON
4	REAR_HS_L_OUT
5	REAR_HS_R_OUT

MIC OUT/LINE OUT: J7	
Pin	Assignment
1	GND
2	MIC_OUT/LINE_OUT +
3	MIC_OUT/LINE_OUT -

Matrix Connector: J8 <sup>a</sup>		
Pin	RJ-45	RJ-12
1	RS485 +	
2	RS485 -	RS485 -
3	FROM MATRIX +	FROM MATRIX +
4	TO MATRIX +	TO MATRIX +
5	TO MATRIX -	TO MATRIX -
6	FROM MATRIX -	FROM MATRIX -
7	RS485 +	RS485 +
8	RS485-	

a. Supports 568B and USOC wiring

EXP/LCP Connector: J9	
Pin	Assignment
1	LCP_DATA_STROBE
2	LCP_DATA_CLK
3	LCP_DATA_IN
4	GND
5	GND
6	
7	RS485 +
8	RS485 -

GPIO Connector: J10		
Pin	Assignment	Silk Screen
		RLY 2/ OPT 2
1	Chassis GND	
2	OPTO2_CATHODE	K-
3	OPTO2_ANODE	A+
4	RELAY2_NO	NO
5	RELAY2_NC	NC
6	RELAY2_COM	C
		RLY 1/ OPT 1
7	Chassis GND	
8	OPTO1_CATHODE	K-
9	OPTO1_ANODE	A+
10	RELAY1_NO	NO
11	RELAY1_NC	NC
12	RELAY1_COM	C

ETHERNET: J12	
Pin	Assignment
1	Data 1 +
2	Data 1 -
3	Data 2 +
4	Data 3 +
5	Data 3 -
6	Data 2-
7	Data 4+
8	Data 4-

ETHERNET: J11	
Pin	Assignment
1	Data 1 +
2	Data 1 -
3	Data 2 +
4	Data 3 +
5	Data 3 -
6	Data 2-
7	Data 4+
8	Data 4-

	Front Headset		
Pin	Assignment		
	4-Pin	5-Pin	6-Pin
1	FRONT_HS_MIC_IN-	FRONT_HS_MIC_IN-	FRONT_HS_MIC_IN-
2	FRONT_HS_MIC_IN+	FRONT_HS_MIC_IN+	FRONT_HS_MIC_IN+
3	FRONT_HS_COMMON	FRONT_HS_COMMON	FRONT_HS_COMMON
4	FRONT_HS_L_OUT	FRONT_HS_L_OUT	FRONT_HS_L_OUT
5		FRONT_HS_R_OUT	FRONT_HS_R_OUT
6			No Connect

---

## ***Requirements***

The following panel firmware versions are needed for the specified PAP-5032 model:

*AZedit..... Version 5.4.0 or later*

*IPedit..... Version 3.6.0 or later*

*MCII-e..... Version 3.4.0 or later*

*AIO-16..... Version 1.7.0 or later (if using AIO-16 to connect to a PAP-5032)*

*RVON-8/16..... Version 2.7.0 or later (if using RVON-8/16 to connect to a PAP-5032)*

*FWUT..... Version 5.40 or later*

*OMI..... Version 6.3.x or later (if using OMI to connect to a PAP-5032)*

## PAP-5032 installation

**IMPORTANT:** If you plan to use the Power Supply Mounting Bracket, we recommend you install the mounting bracket before cabling the panel. For information on different power supply mounting options, see “Power Supply Mounting Options” on page 129.



**FIGURE 2.** Rear Panel Connections

To **install the PAP-5032**, do the following:

1. On the rear panel, plug the **24 VDC power connector (A)** of the power supply into the power connector on the back panel of the unit.
2. Connect an **RJ-45 (568B or USOC) cable (B)** with RTS cabling to the J8 FRAME connector (AIO).  
OR  
Connect a **CAT-5e cable (C)** to either J11 or J12 ETHERNET connector (OMNEO CAT-5e).  
OR  
Connect a **fiber connector (D)** to the OPTICAL fiber connector on the rear panel (OMNEO Fiber).

**NOTE:** The PAP-5032 can have both AIO and Ethernet connected simultaneously, and the user can switch between the connections using the menus.

3. Once the unit is cabled, plug the **power supply power cord** into the wall outlet or a power strip.



---

## Rack mount considerations

<i>Elevated Operating Ambient</i>	If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the Tma (Maximum Ambient Temperature) specified by the manufacturer.
<i>Reduced Air Flow</i>	Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
<i>Mechanical Loading</i>	Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
<i>Circuit Overloading</i>	Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
<i>Reliable Earthing</i>	Reliable earthing of rack mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (for example, the use of power strips).

---

## Configure the maximum number of PAP-5032 panels

Before connecting the PAP-5032 to the intercom system, the maximum number of PAP-5032 units connected to the intercom system must be defined.

To **configure the maximum number of PAP-5032 units**, do the following:

---

**IMPORTANT:** Be sure to save the configuration file before performing this task. Making modifications to the intercom configuration creates a new configuration file.

---

1. Open **AZedit**.
2. Save the **current configuration** file.
3. From the Options menu, select **Intercom Configuration....**  
*A Warning message appears.*
4. Click **Ok**.  
*The Intercom Configuration window appears.*
5. In the PAP-5032s field, enter the **number of PAP-5032 units** planned for the intercom system.
6. Click **Test**.  
*The Intercom Resizing Test Results window appears. A success or failure message appears.*
7. Click **Ok**.  
*The Intercom Resizing Test Results window disappears.*
8. Click **Ok**.  
*The new configuration file is written.*
9. Load the **configuration file** previously saved.

## Assign the PAP-5032 to a port

**NOTE:** The port number chosen must agree with the intended connection type: AIO, OMNEO, or RVON. If using an OMNEO or RVON port, a connection must be made with IPedit.

To assign the PAP-5032 to a port, do the following:

1. From the Options menu, select **PAP-5032 Mapping Table...**  
*The PAP-5032 Mapping Table screen opens.*
2. Enter a **port number** in the field for the appropriate PAP-5032.
3. Enter **port numbers** in the remaining fields, if necessary.
4. Click **Apply**.  
*A confirmation message appears.*
5. Click **Ok**.
6. Click **Cancel**.  
*The PAP-5032 Mapping Table window closes.*

**NOTE:** If a PAP-5032 is connected to a port that is not configured for the PAP-5032, the panel displays a warning message.

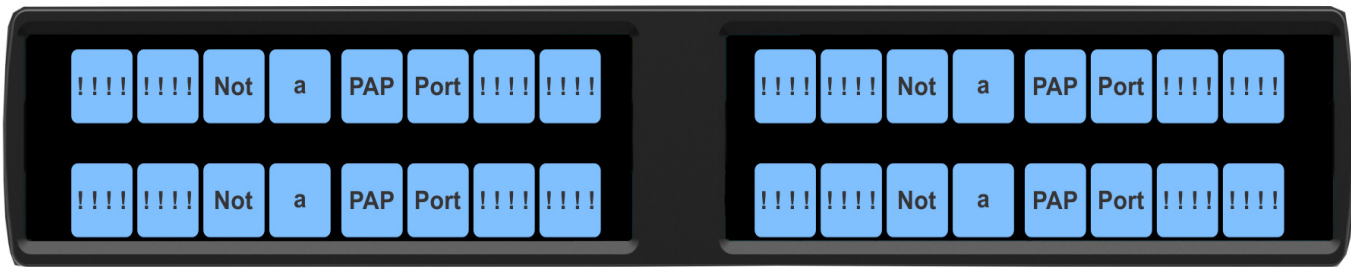


FIGURE 3. PAP-5032 Connection Warning Message

## Assign keys to the PAP-5032

### Key assignment in AZedit

**NOTE:** The PAP-5032 does not need to be connected to the Intercom System to assign keys in AZedit.

To assign keys to the PAP-5032 using AZedit, do the following:

1. From the System menu, select **PAP-5032 Assignment**.  
*The PAP-5032s window opens.*
2. Enter the **PAP-5032 number**.  
OR  
Enter the **port number** assigned to the PAP-5032.  
OR  
Select the **port alpha** assigned to the PAP-5032.
3. Right-click a **program input field**.
4. Select **Change Assignment**.  
*The Select Key Assignment screen opens.*
5. Select **Ports** from the Type column.
6. Select an **assignment** from the key assignment column.
7. Click **Select**.
8. Repeat **program input assignment** as necessary.
9. Right-click an **IFB field**.

10. Select **Change Assignment**.  
*The Select Key Assignment screen opens.*
11. Select either **IFBs** or **Special Functions** from the Type column.
12. Select an **assignment** from the key assignment column.
13. Click **Select**.
14. Repeat **IFB assignment** necessary.
15. Send the **changes** to the intercom.

---

## Connect the PAP-5032 to the Intercom

The PAP-5032 panel connects to an intercom using an OMNEO, RVON, or AIO connection.

---

**IMPORTANT:** The PAP-5032 cannot connect to the PAP/LCP/GPIO connector on the MCII-e on the ADAM frame or ODIN frame.

---

### Connect via OMNEO

The PAP-5032 can establish an OMNEO connection with either an OMI card in an ADAM or ADAM-M intercom, or directly to an ODIN intercom. Configuring an OMNEO connection to a PAP-5032 is similar to configuring an OMNEO connection to a KP-Series keypanel. The only differences between the two types of connections are:

- The PAP-5032 uses the device type EPAP, instead of OKP-2 or OKP-8.
- The PAP-5032 establishes a one-way audio connection (OMI/ODIN to PAP-5032) instead of the two-way connection established by the KP-Series keypanels.

You can configure the OMNEO connection settings of an OMI card or ODIN intercom using either AZedit or IPedit; however only IPedit or the panel menus can be used to configure the PAP-5032.

### Name devices

---

**IMPORTANT:** If the OMI card or the PAP-5032 panel device name is changed, this causes the device to reboot. It also severs any OMNEO connections configured to connect using the old name. It is not necessary to change the device name. If a change is needed, it is best to change the name early in the set up process because there are less devices that need to be changed as a consequence.

---

## Configure the OMI card using AZedit

### **Name the OMI card in AZedit**

To **name the OMI**, do the following:

1. From the Status menu, select **I/O Cards**.  
*The I/O Cards window opens.*
2. Right-click the **desired OMI card**.  
*A popup menu appears.*
3. Select **OMNEO Configuration**.  
*The OMNEO Configuration window opens.*
4. In the Device Name field, enter a **unique device name**.
5. Click **Apply**.  
*The OMNEO Configuration window closes.*

## Configure the OMI connection to the PAP-5032 via AZedit

To **configure the OMI to connect to the PAP-5032**, do the following:

1. From the Status menu, select **I/O Cards**.  
*The I/O Cards window opens.*
2. Right-click the desired **OMI card**.  
*A popup menu appears.*
3. Select **OMNEO Configuration**.  
*The OMNEO Configuration window opens.*
4. From the OMNEO card drop down menu, select the **slot number** where the OMI card is located in the frame.  
*The Device Name field auto-populates with the device name.*
5. From the Local Channel drop down menu, select the **channel** the keypanel uses to communicate across the network.

**NOTE:** An asterisk appears next to channels that are not configured to connect to another device.

6. In the Partner Device Name field, enter the **name of the PAP-5032** in which a communication connection is established.  
OR  
Click the **browse button** to select from a list of devices.  
*The Partner IP Address field auto-populates.*
7. From the Partner Device Type drop down menu, select the **type of device** to which the OMI card connects. For a PAP-5032 panel, select the device type EPAP.
8. From the Partner Channel drop down menu, select the **channel** on the device to which the OMI communicates. For normal communications, select **channel 1** (OMNEO channel 2 can be used for an auxiliary audio connection to the PAP-5032).
9. Click **Apply** to send the changes to all cards in the intercom.

## Configure the OMI via IPedit

### Add the OMI Card to the Device Catalog

To **add the OMI to the device catalog**, do the following:

1. From the Device menu, select **Add**.  
*The Add Device window opens.*
2. From the Available Devices pane, select the **OMI card**.  
*The Add button becomes active.*
3. Click **Add**.  
*The OMI card appears in the device catalog.*
4. Click **Done**.  
*The Add Devices window closes.*

### Configure the OMI card setting via IPedit

To **configure the OMI card via IPedit**, do the following:

1. Select the **OMI card** from the Device Catalog.  
*The Device Information pane and Channel Configuration pane populates.*

*Device Information Pane*

2. Change the **device name and description**, if needed.  
*This step is only needed once per OMI card.*

### *Channel Configuration Pane*

3. Enter the **destination device manually**.
  - a. Enter a **description** in the Channel Description field, if needed.
  - b. Select **EPAP** from the Destination Type drop down menu.
  - c. Enter the **device name** of the PAP-5032 in the Destination Device Name field.

OR

Click the **Browse button** to select the PAP-5032.

- a. Press the **Destination Device name** browse button.
  - b. Expand the **tree** to view available devices.
  - c. Select the **PAP-5032** panel.
  - d. Click **OK**.
4. Set the Destination Channel to **channel 1** (Channel 2 is used for an auxiliary audio connection to the PAP-5032).
5. **Send Changes** to the intercom.

## **Configure ODIN OMNEO connection via AZedit**

To **configure an ODIN OMNEO channel to connect to the PAP-5032 panel**, do the following:

1. From the System menu, select **PAP-5032 Assignment**.  
*The PAP-5032 Assignment window opens.*
2. Select the desired **port/alpha** from either the Port drop down menu or Alpha drop down menu.

If the port does not appear in the PAP-5032 list, it has not been configured as a PAP-5032 port.

To **configure an ODIN OMNEO channel to connect to a non-configured PAP-5032 port**, do the following:

1. From the System menu, select **Keypanel Assignment**.  
*The Keypanel/Ports window opens.*
2. Select the desired port or alpha to use.
3. Click the **Edit** button.  
*The Keypanel/Port Configuration window opens.*
4. Click the **OMNEO tab**.  
*The OMNEO page opens.*
5. Enter a channel description in the Channel Settings Description field, if needed.
6. Enter the **PAP-5032 name** in the Device Name field.
- OR
- Click the **Device Name browse button**, and then select the **PAP-5032** from the available devices list.
7. Select **EPAP** from the Device Type drop down menu.
8. Select **1** from the Channel drop down menu. (Channel 2 is used for an auxiliary audio connection to the PAP-5032).
9. Select the **latency** from the Rx Latency drop down menu.
10. Click **Done**.
11. **Send Changes** to the intercom.

## **Configure an ODIN OMNEO connection using IPedit**

### **Add an ODIN to the Device Catalog**

To **add the ODIN to the device catalog**, do the following:

1. From the Device menu, select **Add**.  
*The Add Device window opens.*
2. From the Available Devices pane, select the **ODIN frame**.  
*The Add button becomes active.*
3. Click **Add**.  
*The ODIN frame appears in the device catalog.*
4. Click **Done**.  
*The Add Devices window closes.*

## Configure an ODIN OMNEO connection via IPedit

To **configure an ODIN OMNEO connection via IPedit**, do the following:

1. Select the **ODIN** from the Device Catalog.  
*The Device Information pane and Channel Configuration pane populates.*

### *Device Information Pane*

2. Change the **device name** and **description**, if needed.  
*This step is only needed once per ODIN frame.*

### *Channel Configuration Pane*

3. Enter the destination device manually
  - a. Enter a **description** in the Channel Description field, if needed.
  - b. Select **EPAP** from the Destination Type drop down menu.
  - c. Enter the **device name** of the PAP-5032 in the Destination Device Name field.

OR

Click the **Browse button** to select the PAP-5032.

- a. Press the Destination Device Name **browse button**.
  - b. Expand the **tree** to view available devices.
  - c. Select the **PAP-5032 panel**.
  - d. Click **OK**.
4. Set the Destination Channel to channel **1** (Channel 2 is used for an auxiliary audio connection to the PAP-5032).
  5. **Send Changes** to the intercom.

## Configure the PAP-5032 panel in IPedit

### Add the PAP-5032 to the Device Catalog

To **add the OMI to the device catalog**, do the following:

1. From the Device menu, select **Add**.  
*The Add Device window opens.*
2. From the Available Devices pane, select the **PAP-5032 Panel**.  
*The Add button becomes active.*
3. Click **Add**.  
*The PAP-5032 Panel appears in the device catalog.*
4. Click **Done**.  
*The Add Devices window closes.*

## Configure the PAP-5032 connection via IPedit

To **configure an ODIN OMNEO connection via IPedit**, do the following:

1. Select the **ODIN OMNEO entry** from the Device Catalog.  
*The Device Information pane and Channel Configuration pane populates.*

### *Device Information Pane*

2. Change the **device name and description**, if needed.  
*This step is only needed once per ODIN frame.*

### *Channel Configuration Pane*

3. Enter the **destination device manually**.
  - a. Enter a **description** in the Channel Description field, if needed.
  - b. Select **EPAP** from the Destination Type drop down menu.
  - c. Enter the **device name** of the PAP-5032 in the Destination Device Name field.

OR

Click the **Browse button** to select the PAP-5032.

- a. Press the Destination Device name **browse button**.
  - b. Expand the **tree** to view available devices.
  - c. Select the **PAP-5032 panel**.
  - d. Click **OK**.
4. Set the Destination Channel to **channel 1** (Channel 2 is used for an auxiliary audio connection to the PAP-5032).
5. **Send Changes** to the intercom.

## **Connecting PAP-5032 panels through the OMNEO Offers menu**

---

**IMPORTANT:** If IPedit is used to set up the panel connection, this step is not needed because it was already done in the software.

---

To finish the connection set up, the panel must be configured to talk with the OMI card or ODIN frame. This is done through the OMNEO Offers menu on the PAP-5032 panel. For more information, see “Menu System, OMNEO Offers” on page 94.

To **choose an available OMNEO connection from the PAP-5032 front panel**, do the following:

1. Press the **MENU button** on the keypad.  
*The Menu appears in the display panel.*
2. Navigate to the OMNEO Offers|Keypanel menu, select **EPAP**.
3. Press the **SEL button**.  
*A list of available OMNEO offers appear.*
4. Using the up/down keypad keys (or the AUX VOL encoder), select the **OMNEO offer** you want to use.
5. Press the **SEL button**.  
*An arrow appears next to the device.*
6. Press and hold the **CLR button** to exit menu mode.  
*The panel connects using the selected OMNEO offer.*

## **OMNEO audio input on the matrix available for other uses**

The PAP-5032 only establishes a one-way OMNEO audio flow from the matrix to the PAP-5032 panel. The other half of the OMNEO port connecting to the PAP-5032 (audio flow from an OMNEO device to the matrix) can be used by another device that only sends audio to the matrix. This connection is configured using the Dante Controller application.

## **Data only OMNEO connection**

If the network path between the PAP-5032 and the matrix it connects to is too long to meet the latency requirements for OMNEO audio, the panel can be configured to use a data-only OMNEO connection. The PAP-5032 panel functions normally, but audio monitoring does not work (since there is no audio connection). To set up a data-only connection to a PAP-5032, select EPAP-D (Ethernet PAP Data-only) for the partner device type when configuring the OMI or ODIN channels in AZedit and IPedit.

When a PAP-5032 panel is connected with the data only OMNEO connection, a data only icon appears in the left LCD display immediately to the left of the OMNEO connection icon.



Indicates the PAP-5032 does not have an audio connection to the intercom port used by the panel, as a result, listening to program source and IFB keys are disabled.

If the intercom has RVON ports available, using an RVON connection may be preferable to an OMNEO data-only connection, as an RVON connection permits the PAP-5032 panel to provide audio monitoring regardless of the network delay.

---

## Connect via RVON

In order to connect using RVON, the factory installed firmware that comes with the PAP-5032 must be replaced with the RVON version which can be downloaded at [www.rtsintercoms.com](http://www.rtsintercoms.com). For information on using FWUT (Firmware Upload Tool), see “Download Firmware to the Panel Using the Firmware Upload Tool” on page 64.

Configuration of an RVON connection to a PAP-5032 is similar to the RVON to KP-Series keypanel configuration. The only difference is the PAP-5032 uses device type EPAP-R instead of RVON-KP. RVON audio connections are normally bi-directional, but the PAP-5032 only receives audio from the OMI card or ODIN frame. It always sends silence in the other direction.

The PAP-5032 can connect to RVON-8, RVON-16, and ODIN frames.

---

## Configure the RVON-8 or RVON-16 card via AZedit

### Configure the RVON card settings in AZedit

To **configure the RVON card settings in AZedit**, do the following:

1. From the Status menu, select **I/O Cards**.  
*The I/O Card Status window opens.*
2. Right-click the desired **RVON-8 or RVON-16 card**.  
*A popup menu appears.*
3. Select **RVON Configuration**.  
*The RVON Configuration window opens.*
4. Select the **appropriate slot** from the RVON Card drop down menu.
5. Select the **Use Static IP Settings check box**.
6. Enter the **IP Address**.
7. Enter the **Network Mask**.
8. Enter the **Default Gateway**, if needed.
9. Click **Apply**.  
*The RVON Configuration window closes.*

### Configure the RVON-8/16 connection to the PAP-5032 via AZedit

To **configure the RVON-8/16 channel to connect to the PAP-5032**, do the following:

1. From the Status menu, select **I/O Cards**.  
*The I/O Card Status window opens.*
2. Right-click on the **RVON card** to configure.  
*A popup menu appears.*
3. Select **RVON Configuration**.  
*The RVON Configuration window opens.*
4. Select the **slot number** where the RVON card is located in the frame.  
*The IP settings for this card display in the Settings for RVON Card section.*
5. Select the **channel** you want to use to communicate to the PAP-5032 across the network.

**NOTE:** Channels not already configured to connect to another device appear with an asterisk.

6. Enter the **IP Address of the PAP-5032 panel** in the Partner IP Address field.
7. Select **EPAP-R** from the Partner Device Type drop down menu.
8. Select the **channel** on the partner device to which the RVON communicates from the Partner Channel drop down menu.  
For normal communications with a PAP-5032 panel, select channel 1. RVON channel 2 is used for an auxiliary audio connection to the PAP-5032.
9. Click **Apply** to send the changes to all the cards in the intercom.



## Configure the RVON card via IPedit

### Add an RVON card to the Device Catalog

To **add an RVON card to the device catalog**, do the following:

1. From the Device menu, select **Add**.  
*The Add Device window opens.*
2. From the Available Devices pane, select the **RVON card**.  
*The Add button becomes active.*
3. Click **Add**.  
*The RVON card appears in the device catalog.*
4. Click **Done**.  
*The Add Devices window closes.*

### Configure an RVON card settings via IPedit

To **configure an RVON card via IPedit**, do the following:

1. Select the **RVON card** from the Device Catalog.  
*The Device Information pane and Channel Configuration pane populates.*

#### *Device Information Pane*

2. Change the **description**, if needed.
3. Change the **IP settings** (IP Address, Netmask, Gateway, and DNS Server), if needed.  
*This step is only needed once per RVON card.*

#### *Channel Configuration Pane*

4. Enter a **description** in the Channel Description field, if needed.
5. Enter the **destination device** manually:
  - a. Select **EPAP-R** from the Destination Type drop down menu.
  - b. Enter the **IP Address** of the PAP-5032 panel.  
*The Destination Description field automatically populates if the PAP-5032 is connected to the network.*

OR

Click the **Browse button** to select the PAP-5032:

- a. Press the Destination Device Name **browse button**.
  - b. Expand the **tree** to view available devices.
  - c. Select the **PAP-5032 panel**.
  - d. Click **OK**.
6. Set the Destination Channel to channel **1** (Channel 2 is used for an auxiliary audio connection to the PAP-5032).
  7. **Send Changes** to the intercom.

## Configure ODIN RVON IP Settings via AZedit

To **configure RVON IP settings for an ODIN frame**, do the following:

1. From the Options menu, select **Ethernet Configuration....**
2. Select the **RVON tab**.
3. Enter the **IP Address**.
4. Enter the **Netmask**.
5. Enter the **Gateway**, if needed.

**NOTE:** This only needs to be done once for each ODIN frame.

## Configure ODIN RVON Connection via AZedit

To configure an ODIN RVON channel to connect to a PAP-5032, do the following:

1. From the System menu, select **PAP-5032 Assignment**.  
*The PAP-5032 Assignment window opens.*
2. Select the desired **port/alpha** from either the Port drop down menu or Alpha drop down menu.

If the port does not appear in the PAP-5032 list, it has not been configured as a PAP-5032 port.

To configure an ODIN RVON channel to connect to a non-configured PAP-5032 port, do the following:

1. From the System menu, select **Keypanel Assignment**.  
*The Keypanel/Ports window opens.*
2. Select the desired **port or alpha** to use.
3. Click the **Edit** button.  
*The Keypanel/Port Configuration window opens.*
4. Click the **RVON tab**.  
*The RVON page opens.*
5. Enter the **Partner IP Address** in the IP Address field.
6. Select **EPAP-R** from the Device Type drop down menu.
7. Select **1** from the Channel drop down menu.  
*RVON channel 2 can be used for an auxiliary audio connection to the PAP-5032.*
8. Select either **G.711 mu-law** or **G.711 a-law** from the CODEC Type drop down menu.
9. Optionally, set the **packet size**, **Enable VAD**, and set the **VAD threshold**.
10. Click **Done**.
11. **Send Changes** to the intercom.

## Configure ODIN RVON connection via IPedit

### **Add the ODIN frame to the Device Catalog in IPedit**

To add the ODIN to IPedit, do the following:

1. From the Device menu, select **Add**.  
*The Add Device window appears.*
2. Select the **ODIN RVON entry**.  
*The Add button becomes active.*
3. Click **Add**.  
*The ODIN frame appears in the Device Catalog.*
4. Click **Done**.  
*The Add Devices window closes.*

### **Configure the ODIN frame RVON IP settings in IPedit**

To configure the ODIN RVON frame in IPedit, do the following:

1. Select the **ODIN RVON entry** from the Device Catalog.  
*The Device Information pane and Channel Configuration pane populates.*

#### *Device Information Pane*

2. Change the **description**, if needed.
3. Change the **IP settings** (IP Address, Netmask, Gateway, and DNS Server), if needed.  
*This step is only needed once per ODIN RVON port.*

*Channel Configuration Pane*

4. Verify the **RVON tab** is selected above the Channel Configuration Column.
5. Enter a **description** in the Channel Description field, if needed.
6. Enter the **destination device** manually:
  - a. Select **EPAP-R** from the Destination Type drop down menu.
  - b. Enter the **IP Address** of the PAP-5032 panel.  
*The Destination Description field automatically populates if the PAP-5032 is connected to the network.*

OR

Click the **Browse button** to select the PAP-5032:

- a. Press the **Destination Device Name browse button**.
  - b. Expand the **tree** to view available devices.
  - c. Select the **PAP-5032 panel**.
  - d. Click **OK**.
7. Set the Destination Channel to channel **1** (Channel 2 is used for an auxiliary audio connection to the PAP-5032).
8. **Send Changes** to the intercom.

## **Configure the PAP-5032 panel in IPedit**

### **Add the PAP-5032 to the Device Catalog in IPedit**

To **add the PAP-5032 to IPedit**, do the following:

1. From the Device menu, select **Add**.  
*The Add Device window appears.*
2. Select the **PAP-5032**.  
*The Add button becomes active.*
3. Click **Add**.  
*The PAP-5032 appears in the Device Catalog.*
4. Click **Done**.  
*The Add Devices window closes.*

To **configure the PAP-5032 in IPedit**, do the following:

1. Select the **PAP-5032** from the Device Catalog.  
*The Device Information pane and Channel Configuration pane populates.*

*Device Information Pane*

2. Change the **description**, if needed.
3. Change the **IP settings** (IP Address, Netmask, Gateway, and DNS Server), if needed.
4. Select the **Use Static IP Settings check box is selected**, if needed.
5. Verify the **Use RSTP check box is selected**, if needed.
6. Verify the **Enable AIO check box is not selected**.

*Channel Configuration Pane*

7. Verify the **RVON tab** is selected above the Channel Configuration Column.
8. Enter a **description** in the Channel Description field, if needed.
9. Enter the **destination device** manually:
  - a. Select **RVON-8, RVON-16, or ODIN-R** from the Destination Type drop down menu.
  - b. Enter the **IP Address** of the selected device.

*The Destination Description field automatically populates if the PAP-5032 is connected to the network.*

OR

Click the **Browse button** to select the appropriate device:

- a. Press the Destination Device Name **browse button**.
  - b. Expand the **tree** to view available devices.
  - c. Select the **appropriate device**.
  - d. Click **OK**.
10. Select the **channel** to which the panel connects (this should correspond to the intercom port configured to connect to the PAP-5032 panel).
  11. **Send changes** to the keypanel.

### Connect the PAP-5032 panel through the front panel RVON offers menu

---

**IMPORTANT:** If IPedit was used to set up the PAP-5032 panel end of the connection, this step is not needed because it has been done in the software.

---

To finish the connection setup, the keypanel must be configured to accept the RVON offer from the partner device. This is done using the RVON Offers menu. For more information, see “Menu System, RVON Offers” on page 95.

To select an RVON connection offer from the PAP-5032 front panel, do the following:

1. Press the **MENU button** to invoke the main menu.
  2. Using the left and right arrow keypad key or the AUX Vol encoder, navigate to **RVON Offers**.
  3. Press the **SEL button**.
  4. Navigate to **Keypanel**.
  5. Press the **SEL button**.
  6. Navigate to **EPAP-R**.
  7. Press the **SEL button**.
- A list of available RVON offers appear.*
8. Using the up/down keypad keys or the AUX VOL encoder, navigate to the desired **RVON offer**.
  9. Press the **SEL button**.
- An arrow appears next to the offer.*
10. Press and hold the **CLR button** to exit menu mode.
- The panel connects using the selected RVON offer.*

### Connect via AIO

The PAP-5032 can connect using a direct AIO connection to the following:

- AIO-16 card with an MDR backcard in ADAM or ADAM-M
- AIO-16 card with an RJ-45 backcard in ADAM-M
- ODIN frame (using one of the AIO RJ-45 ports on J4)

These connections all support automatic addressing. It is not possible to set the serial address of the PAP-5032.

The PAP-5032 cannot connect to an AIO-8 card, nor can it connect to an AIO-16 with a SCSI backcard. These cards do not support the 8-bit protocol that the PAP-5032 requires.

## **Other AIO Port Audio Input Uses**

The PAP-5032 only uses audio sent from the matrix. It never sends audio to the matrix (other than silence). The AIO port connecting to the PAP-5032 can be shared with another device that only sends audio to the matrix. This requires a custom cable to connect the signals TO\_MATRIX+ and TO\_MATRIX- to the other audio source instead of the PAP-5032 panel. For more information, see “Connector pinouts” on page 13.

## **Key assignment from the PAP-5032**

**NOTE:** The PAP-5032 must be connected to the Intercom System to assign keys from the front panel.

To **assign a key from the front panel**, do the following:


1. Press the **MENU** key.
2. Select **Key Assign**.
3. Press **SEL**.
4. Select **PGM Source (P2P)**.  
OR  
Select **IFB**.
5. Press **SEL**.
6. Select the **source** to assign to the key.
7. Press **SEL**.
8. Press the **physical key** to make the assignment.


To **assign a key from the front panel keypad**, do the following:


1. On the keypad, press the **PGM** key.  
*A scroll list of PGM sources appears in the panel display.*  
OR  
Press the **IFB** key.  
*A scroll list of IFB sources appears in the panel display.*
2. Select the **desired source/IFB**.
3. Press the **COPY** key.
4. Press the **target** key.  
*The source appears on the panel key.*

**NOTE:** For both methods, reassigning a PGM source or IFB to the panel clears the existing assignment. Program sources may only be assigned to keys on the left hand side of the panel, and IFBs may only be assigned to keys on the right hand side of the panel.

## Power Up

At power-up, if the PAP-5032 is connected to the matrix, the alphanumeric display shows dashes in the light blue color key . After several seconds, the program source and IFB key assignments display with the appropriate color keys and alphas (if key assignments have been configured).

If the panel cannot establish communications with the intercom system, all alphanumeric displays continue to show asterisks (\*\*\*\*) and the *Disconnected from Matrix* icon  appears in the panel display. If the panel is configured for OMNEO, this icon also displays the OMNEO device name. Check the panel to matrix cable connection if this occurs.

If the panel loses communications with the intercom, the panel displays the Disconnected from Matrix icon and displays asterisks  after approximately 30 seconds.

If the PAP-5032 panel is able to connect to the intercom, but has been connected to an intercom port that has not been configured to connect to a PAP-5032 panel (for example, a normal keypanel port), it displays the message “!!!Not a PAP Port!!!”.

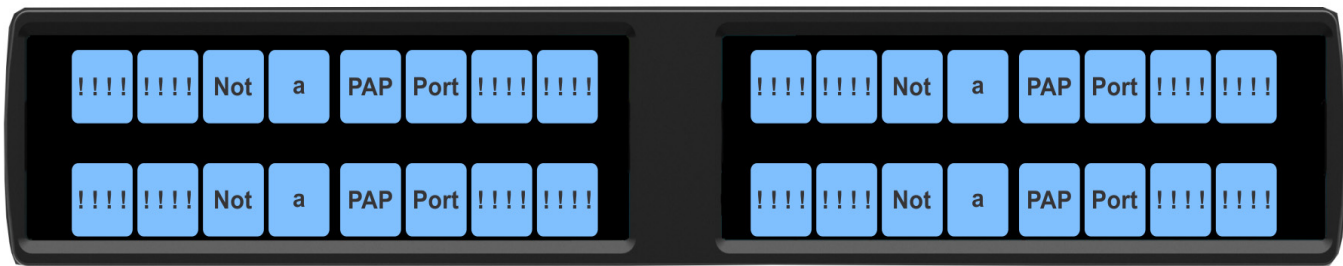


FIGURE 4. PAP-5032 Connection Warning Message

## Connections

### Frame Connector

Use the Frame connector to connect to the Matrix system. For the frame connector location, see Figure 1 on page 12. The intercom port you connect to should agree with the address set earlier.

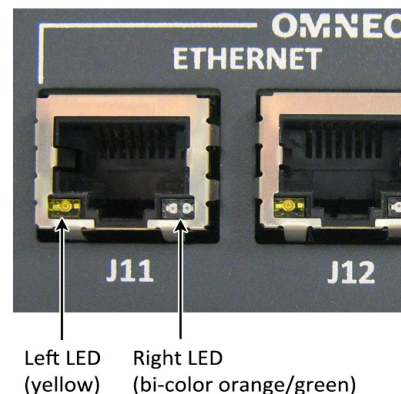
### Ethernet Connector

Use the Ethernet connector to connect the panel to a network system. Each RJ-45 Ethernet connector has two LEDs:

**Left LED.** The left LED is yellow and indicates a network link is established. It flashes on/off whenever there is network activity.

**Right LED.** The right LED is bi-color (orange and green) and indicates the speed of the connection by the color displayed.

- A green LED indicates the port is operating at 1000Mbps (1 Gbps).
- An orange LED indicates the port is operating at 100Mbps.
- No LED color indicates the port is operating at 10Mbps. This is not suitable for OMNEO networking.

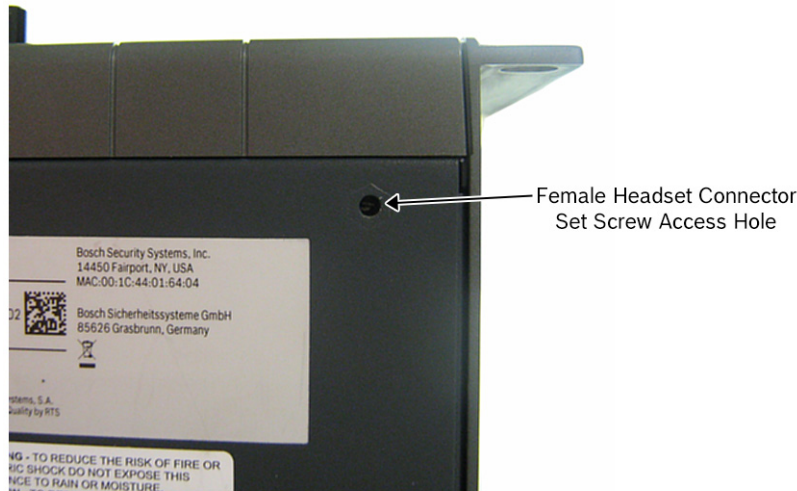


## Headset Connector

A binaural headset may be connected to the front or rear of the unit 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.

### *Female Headset Connector*

For a female headset connector, the set screw access hole is located on the bottom-right side of the unit.



Bottom Panel View – KP-5032

**FIGURE 5.** Female Headset Connector Set Screw Access Hole

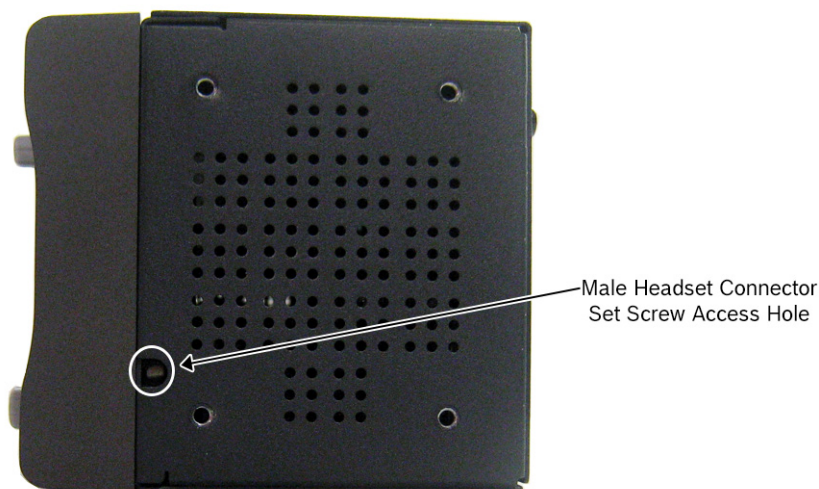
### *Male Headset Connector*

For a male headset connector, the set screw access hole is located on the right-side of the unit.

---

**IMPORTANT:** The right-side rack ear must be removed to expose the set screw access hole.

---



Right Side Panel – KP-5032

**FIGURE 6.** Male Headset Connector Set Screw Access Hole

### *Changing the Front Headset Connector*

The front headset connector can be switched between a 5-/6-pin XLR connect and a 4-pin XLR connector.

To **replace the front panel headset connector**, do the following:

1. Using a flat-blade screwdriver with 2.4mm wide (3/32 in.) tip, turn the **set screw counterclockwise** to loosen the connector from the unit.



2. Once the connector is loose, tip the **unit** and gently shake the **connector loose**.
3. Carefully pull the **headset cables** free from the chassis.



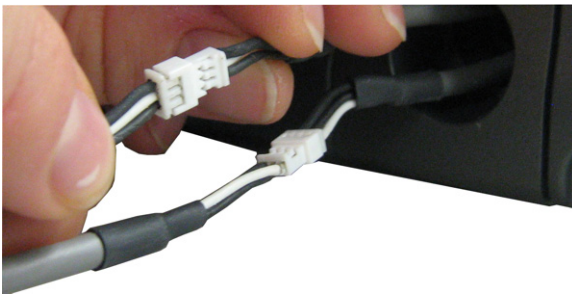
**NOTE:** If the cable assembly becomes caught, shift the cable up and down to clear the cable from the unit.



4. Cut the **shrink-tubing** from around the cables. Take care to not cut through the cables.



5. Disconnect **both cables** by pulling the cable-to-cable connectors apart.



6. Using the replacement headset connector, thread the **cables** through the supplied shrink-tubing.

---

**IMPORTANT:** Using one piece of the shrink tubing, thread the long cable of the replacement connector.  
Using the second piece of shrink tubing, thread the long cable protruding from the panel headset connector opening.

---



7. Connect the **cable-to-cable connectors**.

**NOTE:** Take care to reconnect the proper gender connectors when reassembling the headset cable.

8. Position both pieces of **shrink-tubing** so any portion of the cable without an outer insulation layer is covered.



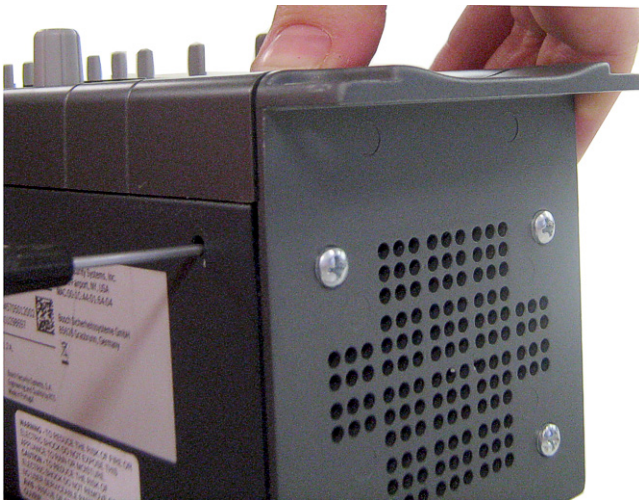
9. Using a heat gun, apply **even heat over the length and diameter of the tubing** (minimum temperature 100° C).

---

**IMPORTANT:** Since uncontrolled heat can cause uneven shrinkage, physical damage, and insulation failure, the use of open flame is not recommended. Avoid overheating the heat shrink-tubing because it can become brittle and/or charred.

---

10. Gently push the **headset connector cable** back into the unit.
11. Align the **rib on the headset connector with the notch in the connector opening** and press the **connector completely in**.
12. While holding the connector in place, turn the **set screw clockwise** to tighten the connector in position.



## GPIO 12-Position Terminal Block Connector

The **GPIO 12-Position Terminal Block Connector** is used to provide connections to relays (outputs) and opto-isolators (inputs). Using the table, “GPIO Connector: J10” on page 13, connect the correct wires to the 12-position connector.

### Wire Specifications

*Solid Wire: 26-16 AWG/0.13–1.5 mm<sup>2</sup>*

*Stranded Wire: 26-16 AWG/0.13–1.5 mm<sup>2</sup>*

To **connect the 12-position terminal block to the panel**, do the following:

1. Align the **terminal block connector with the 12-position connector** on the rear side of the panel.
2. Gently push the **connector** into place.  
*The locking levers click into place.*

To **detach the 12-position terminal block connector from the panel**, do the following:

- > Using both thumbs, gently press up on the **locking levers**.  
*The connector is released from the panel.*



## Speaker 2-Position Terminal Block Connector

The **Speaker 2-Position Terminal Block Connector** is used to connect an external speaker.

### Wire Specifications

*Solid Wire: 26-16 AWG/0.13–1.5 mm<sup>2</sup>*

*Stranded Wire: 26-16 AWG/0.13–1.5 mm<sup>2</sup>*

*Torque: 3.0 lb-IN/0.34 Nm*

---

**WARNING:** The positive (+) and negative (-) terminals of the connector should be connected to the positive (+) and negative (-) terminals of the external speaker. These terminals should never be connected to GND or permanent damage can occur.

---

To **connect the 2-position terminal block to the panel**, do the following:

1. Align the **2-position terminal block connector with the 2-position connector** on the rear side of the panel.
2. Gently push the **connector** into place.

To **detach the 2-position terminal block connector from the panel**, do the following:

- > Using the thumb and fore-finger, carefully wiggle the **2-position terminal block** until it comes free from the connector.



# Basic Operation

## Intercom Keys and Displays

### Display Icons

**Display Icons** are used to indicate the accessories and features enabled, disabled, active, or inactive. Use Table 1 for a complete description of each icon seen on the PAP-5032.

**TABLE 1.** Display Icon Descriptions



















Icon	Icon Name	Description
	Matrix Connected	The panel is connected to the Matrix. This icon briefly displays at connection.
	Disconnected From Matrix	There is no connection between the Matrix and the panel. This icon is displayed as long as there is no Matrix data connection.  <b>NOTE:</b> When the panel is disconnected, it displays its Device Name (for OMNEO) or IP Address (for RVON) device connections.
	Firmware Download	Firmware is being downloaded to the panel. A progress bar displays: chunk progress overall progress chunk/overall progress  <b>NOTE:</b> For more information, see “Download Firmware to the Panel From AZedit” on page 61.
	Front Headphones	The front headphones are enabled. This indicates the front headset microphone is not enabled.
	Front Speaker	The front speaker is enabled. To enable the front speaker, see “Audio Options Menu, Speaker” on page 88.
	Front Speaker Muted	The front speaker is muted.
	Rear Headphones	The rear headphones are enabled. This indicates the rear headset mic is not enabled. To enable the rear headphones, see “Audio Options Menu, Headset Speaker” on page 85.
	Rear Speaker	The rear speaker is active. To activate the rear speaker, see “Audio Options Menu, Speaker” on page 88.
	Rear Speaker Muted	The rear speaker is muted.

TABLE 1. Display Icon Descriptions

Icon	Icon Name	Description
	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 Speaker” on page 85.
	Both Speakers	Both front and rear speakers are enabled. To enable the front speaker, see “Audio Options Menu, Speaker” on page 88.
	Both Speakers Muted	Both front and rear speakers are muted.
	OMNEO Enabled	The OMNEO matrix interface is enabled on the panel. For more information on OMNEO Offers, see “Menu System, OMNEO Offers” on page 94.
	RVON Enabled	The RVON matrix interface is enabled on the panel.
	Analog	The Analog matrix interface is enabled on the panel.
	Virtual Key Assignment	Keys are active on a virtual EKP that are not being displayed. For more information, see “Key Options Menu, Panel Swap” on page 91. <b>NOTE:</b> A listen bar displays to indicate virtual keys are active.
	Matrix In Mute	The Matrix Input volume is muted. When the Matrix Input volume is adjusted down to mute, the panel displays this flashing icon as a warning there is no audio from the Matrix.
	Data Only Connection	Indicates the PAP-5032 does not have an audio connection to the intercom port used by the panel, as a result, listening to program source and IFB keys are disabled.



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## Keypad Reference View

With the PAP-5032, there are two tiers of operation for a panel's keypad: Primary Mode and SHIFT Mode.

### Primary Mode

**Primary Mode** is used for the most common panel functions, such as CLR, SEL, and accessing the Main menu. There are no special keypad sequences to use these functions.

### SHIFT Mode

**SHIFT Mode** contains secondary functions used to access more utilities on the panel. The SHIFT mode functions are located on the primary keypad keys.

**NOTE:** By default, the keypad backlight changes to *white* when the keypad is in SHIFT mode. For more information, see “Service Menu, Keypad” on page 98.

To **access SHIFT Mode**, do the following:

1. Press the **SHIFT button**.
2. Press the **SHIFT mode button** desired.

**NOTE:** Once SHIFT mode is entered, exit the mode by pressing the SHIFT key again, without pressing any other keys.



FIGURE 7. PAP-5032 Keypad

**IMPORTANT:** When **SHIFT** + <keypad key> appears in this manual, the user is instructed to press the **SHIFT** key followed by the next keypad key. The **SHIFT** key and the keypad key should not be pressed simultaneously. If the user is instructed to press two keys simultaneously, this manual uses the phrase **press and hold**.

Keypad Button	Shift Function	Description
PGM		The PGM (1) button displays the list of available program sources available to scroll from.
↑ button	LVOL	<p>The ↑ (2) button moves you upward through the scroll list or available key assignments one at a time.</p> <p>The LVOL button is used to adjust the input gain for a program source or the output gain of an IFB.</p> <p>When adjusting a program source, the adjustment changes the input gain of the corresponding intercom port.</p> <p>When adjusting an IFB, the adjustment changes the output gain of the intercom port configured as the output port for the IFB. If the IFB does not have an output port configured, “N/A” is displayed in place of the numeric gain and the volume bar is not shown.</p> <p>To <b>adjust the listen volume from the front panel</b>, do the following:</p> <ol style="list-style-type: none"> <li>1. Press the <b>SHIFT+ LVOL (2) buttons</b>. <i>The prompt Select PGM or IFB Gain to Adjust appears in the display.</i></li> <li>2. Press a <b>Program Source</b> or <b>IFB key</b>. <i>The current numeric gain and volume bar graph appear on the key assignment.</i></li> <li>3. Adjust the <b>volume</b> by rotating the AUX VOLUME encoder. <i>The gain and bar graph reflect the change.</i></li> </ol>
IFB button		The IFB (3) button displays the list of available IFB assignments available to scroll from. Select an intercom name to access the scroll lists for that intercom
← button	←←	The ←/←← (4) button moves you backwards through the menu options or available key assignments one at a time or by the page.
MENU button	INFO	<p>The MENU/INFO (5) button is used to access the top level menu structure or access a secondary menu of commonly used features (see, “INFO button” on page 43).</p> <p>The MENU button is used to access the top-level menu structure.</p> <ul style="list-style-type: none"> <li>&gt; Press the <b>MENU button</b> once. <i>The top-level menu appears in the panel display.</i></li> </ul> <p>To <b>access the INFO menu</b>, do the following</p> <ol style="list-style-type: none"> <li>1. Press the <b>SHIFT button</b>.</li> <li>2. Press the <b>MENU/INFO (5) button</b>. <i>The INFO menu appears in the panel display.</i></li> </ol> <p>For more details about the INFO button, see “INFO button” on page 43.</p>
→ button	→→	The →/→→ (6) button moves you backwards through the menu options or available key assignments one at a time or by the page.
COPY button		<p>The COPY (7) button is used to copy an incoming call key assignment from the CWW to a specific panel key.</p> <p>To <b>copy a listen key to a listen key</b>, do the following:</p> <ol style="list-style-type: none"> <li>1. Press <b>COPY + SEL + SHIFT</b>.</li> <li>2. Press the <b>source key</b>.</li> <li>3. Press <b>SHIFT</b>.</li> <li>4. Press the <b>target key</b>.</li> </ol>



Keypad Button	Shift Function	Description
↓ button		The ↓ (8) button moves you downward through the scroll list or available key assignments one at a time.
PAGE button	LSTN	<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. To configure the number of pages available use the Intercom Configuration window, on the Options Page in AZedit.</p> <p>To <b>program a new page directly</b>, do the following:</p> <ul style="list-style-type: none"> <li>&gt; Press the <b>PAGE button</b>, &lt;#&gt;, then tap a <b>key</b>.</li> </ul> <p>To <b>enter the graphical page change mode</b>, do the following:</p> <ul style="list-style-type: none"> <li>&gt; Press the <b>PAGE+ SEL buttons</b>.</li> <li>OR</li> <li>Press the <b>SHIFT+PAGE buttons</b>.</li> </ul> <p>The LSTN mode button is used to toggle push button presses from talk to listen key presses.</p> <p><b>NOTE:</b> For more information on the push button listen mode, see “Basic Key Operation” on page 45.</p> <p>To <b>enter the listen menu mode</b>, do the following:</p> <ol style="list-style-type: none"> <li>1. Press the <b>SHIFT+LSTN button</b>. <i>The push buttons switch to listen mode and a Toggle Key Listen States message appears on panel display</i></li> <li>2. Press the <b>panel button</b> for which to listen. <i>The panel buttons now operate on listen key states rather than talk key states.</i></li> </ol> <p><b>NOTE:</b> When not in listen menu mode (SHIFT+LSTN), holding the SHIFT button and pushing a panel button also toggles the listen state of the panel button pushed.</p> <p>To <b>leave listen mode</b>, do the following</p> <ul style="list-style-type: none"> <li>&gt; Press the <b>CLR button</b>. <i>The panel leaves listen mode.</i></li> </ul>
CLR button		<p>The CLR (*) button functions as a back button when a menu is displayed.</p> <p>To <b>clear a menu</b>, do the following:</p> <ul style="list-style-type: none"> <li>&gt; Press and hold the <b>CLR button</b> for half a second.</li> </ul>
SHIFT button		<p>The SHIFT (0) button accesses the secondary keypad actions such as INFO, LVOL, and LSTN.</p> <p><b>NOTE:</b> The SHIFT button, when held down while pushing a panel key, toggles the listen state of the button.</p>
SEL button		The SEL (#) button is used to select options highlighted in the menu structure.

## PAP-5032 Only Keypad Keys

Keypad Button	Shift Function	Description
MENU button	UPG3	<p>The MENU button is used to access the top-level menu structure.</p> <ul style="list-style-type: none"> <li>&gt; Press the <b>MENU button</b> once. <i>The top-level menu appears in the panel display.</i></li> </ul> <p><b>NOTE:</b> If the keypad backlight mode is set to Activate (Service Keypad Backlight), you must press the MENU button twice to access the top-level menu.</p>
FWD button	UPG4	The FWD button moves you forward through the menu option highlighted. For example, if Display is highlighted in the panel display and FWD is pressed, the second level of the display menu appears.
BACK button	UPG5	<p>The BACK button moves you backward, one level, through the menu structure.</p> <p><b>NOTE:</b> If you are at the top-level of the menu structure and press BACK, you cannot move backward any further.</p>
UPG 1 button	UPG6	The UPG1 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 or panel swap events.
UPG 2 button	UPG7	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 or panel swap events.

*INFO button*

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



Feature	Description
Panel ID	Displays the port number and alpha of the panel.
Setup Pages	Displays the setup pages assigned to each row of keys. You cannot change setup pages from this menu.
MAC Address	Displays the MAC Address of the panel.
Test Panel	Enables the Test Panel feature. For more information, see “Service Menu, Test Panel” on page 107.
Version	Displays the firmware version of the PAP-5032. For more information, see “Display Menu, Version” on page 89.

To **access the Info Menu**, do the following:

- 1. On the keypad, press the **SHIFT** button.
- 2. On the keypad, press the **INFO MENU (5)** button.  
*The INFO menu appears in the panel display.*

**NOTE:** To exit the INFO menu mode, press the **CLR** button.

## Breadcrumb Menu Navigation

**Breadcrumb Navigation** is a graphical aid to help users know where they are in the menu structure. The breadcrumb menu visually lays out a path of options selected up to the current menu position. It appears as a horizontal line above the menu options (shown in Figure 8). For more information, see “Service Menu, Display” on page 96.

Breadcrumb Menu

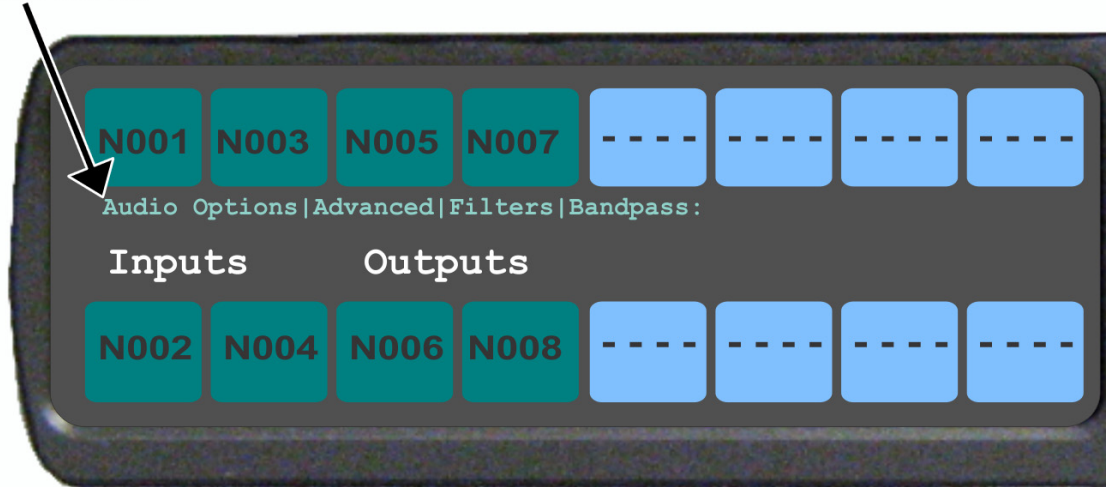


FIGURE 8. Breadcrumb Navigation

## Menu Navigation and Shaft Encoder Knobs

While the panel is in menu mode, the **AUX Volume** shaft encoder is used to move the selection left and right. In the case of a single menu item with up and down control, the shaft encoder is rotated to scroll through the available selections. This is particularly convenient when setting the panel brightness or gain. Also, pressing the Aux Volume shaft encoder while in menu mode is the equivalent to SEL key operation. Conversely, pressing the **MAIN Volume** shaft encoder in menu mode is the equivalent to the CLR key operation. Double-tapping the AUX Volume shaft encoder, can also be used for the CLR operation.

Other navigation options:

- Press and hold the AUX/MENU shaft encoder to exit the menu.

## CLR Button

The **CLR** button is used either as the BACK function while in MENU mode or to exit MENU mode completely.

To **go back one menu level**, do the following:

- > Press the **CLR button once**.

To **exit the menu**, do the following:

- > Press and hold the **CLR button for half a second**.

## Basic Key Operation

Coupled with the traditional operation of pushbutton keys, the PAP-5032 panels also have an integrated **LCP** (Level Control Panel).

### Program Sources and IFBs

The purpose of the PAP-5032 is to display and allow users to change which program sources are assigned as the program input for IFBs. There are two temporary states for the keys on the PAP-5032:

**IF01**

This key state is shown when the IFB or Program Source key is pressed or latched on and off.

**IF01**

This key state is shown when another key associated with the key is pressed. For example, when program source key is pressed, the IFB where the program source is assigned displays in a solid yellow.

**IF04**

When a minus icon appears on an IFB source key, this means the the IFB had not been associated with an output port. Program sources cannot be associated with the IFB because there is no output port to send the audio to.



**FIGURE 9.** Pushbutton Key Function Explanation

### Key Assignment from the Front Panel

**NOTE:** The PAP-5032 must be connected to the Intercom System to assign keys from the front panel.

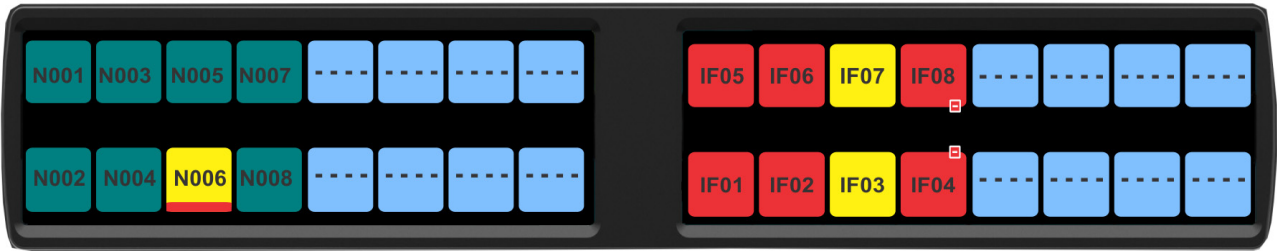
To assign a key from the front panel, do the following:

1. Press the **MENU** key.
2. Select **Key Assign**.
3. Press **SEL**.
4. Select **PGM Source (P2P)**.  
OR  
Select **IFB**.
5. Press **SEL**.
6. Select the **source or IFB** to assign to the key.
7. Press **SEL**.
8. Press the **physical key** to make the assignment.

Display IFB sources using a program source

To display the IFB sources associated to a program source, do the following:

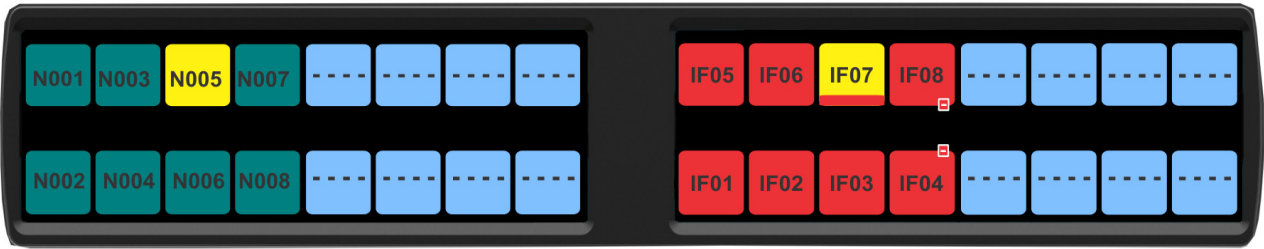
- > Press and hold a **PGM Source key**.  
*The associated IFB sources appear in yellow.*



Display program source associated to an IFB source

To display the program source associated to an IFB source, do the following:

- > Press and hold a **PGM Source key**.  
*The associated IFB sources appear in yellow.*



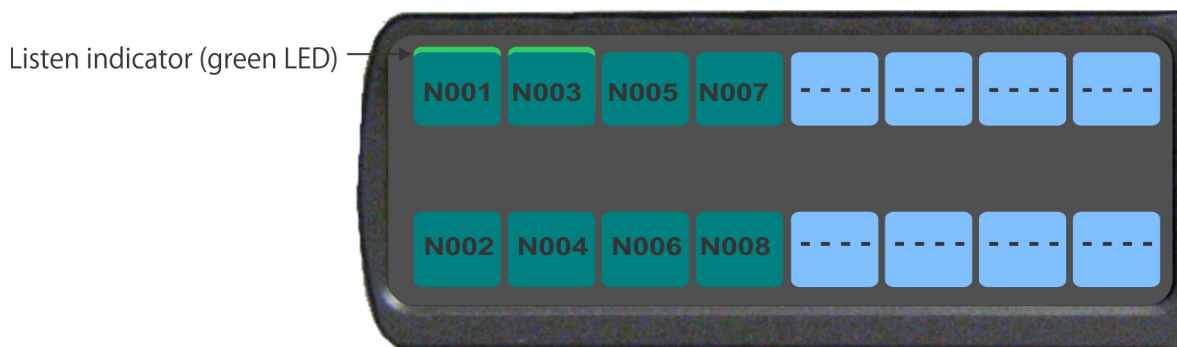
Assign a program source to an IFB

To assign a program source to an IFB, do the following:

1. Click and hold an **IFB key**.
2. Press the **program source key** to assign to the IFB.  
*The program source is associated to the IFB.*

## Listen Indicator

The **Listen Indicator**, shown in Figure 10, displays a visual indicator when the listen key is active. The listen state of each key is represented by an LED-like horizontal bar at the top (listen) of each key.



**FIGURE 10.** Listen Indicator

By default, the listen indicator is green. You can change the colors of the indicator by using the Key Color Window in AZedit. For more information, see “Panel Color Window” on page 54.

## Input/Output Gain Adjustment

The PAP-5032 panel is used to adjust the input gain of program sources (ports) and the output gain of IFBs. This adjustment is automatically reflected in AZedit on the Input/Output Gains window (System|Gains|Input/Output Gains). Adjusting the output gain of an IFB changes the output gain of the port currently assigned as the output port for the IFB. If no port is configured as the output port, the gain cannot be adjusted (displayed as NA).

The range of input and output gain adjust is -20 dB to +20 dB.

To **adjust an input gain or an output gain**, do the following:


1. Press and hold SHIFT.
2. Press and hold the panel key for which you want to adjust the gain.

**NOTE:** Once you have pressed the panel key, you can release the SHIFT button.

3. While still pressing the panel key, rotate the AUX VOL encoder to set the gain.
4. Turn the **AUX Volume shaft encoder to the right to increase the gain.**

OR

Turn the **AUX Volume shaft encoder to the left to decrease the gain.**


A volume status bar (  ) and the volume level, in dB, appear on the specified key in the panel display.

OR

1. Press **SHIFT + PAGE (LSTN)**.  
*Toggle Listen Key States appears on the panel display.*
2. Press and hold the **panel key** for which you want to adjust the gain.
3. Turn the **AUX Volume shaft encoder to the right to increase the gain.**


OR

Turn the **AUX Volume shaft encoder to the left to decrease the gain.**

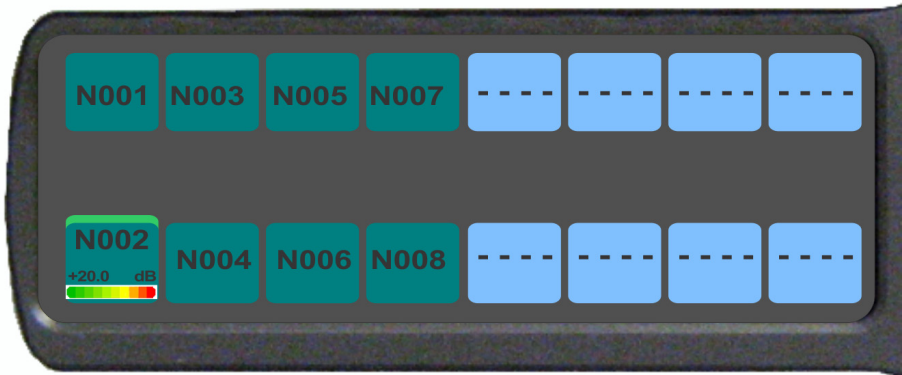
A volume status bar (  ) and the volume level, in dB, appear on the specified key in the panel display.

OR

1. Press **SHIFT + up arrow (LVOL)**.  
Select PGM or IFB Gain to Adjust appears on the panel display.
2. Press the **panel key** for which you want to adjust the gain.
3. Rotate the AUX VOL encoder to set the gain.

4. Turn the AUX Volume shaft encoder to the right to increase the gain.  
OR  
Turn the AUX Volume shaft encoder to the left to decrease the gain.  
A volume status bar (  ) and the volume level, in dB, appear on the specified key in the panel display.

**NOTE:** The volume bar shows a full width icon, but only colors the portion that represents volume. The remainder of the bar is shown in black. This is so when the key gains are always displayed, the user knows when a key is muted, as opposed to a key that cannot have gain adjusted.



Panel Volume Adjustments

By default, the main volume control adjusts the output volume for the speaker (front/rear) or headset (front/rear), whichever is currently active.

**IMPORTANT:** If the speaker output volume is adjusted to Mute, then the panel displays a flashing SPKR MUTE icon as a warning there is no audio to the front, rear, or both speakers.



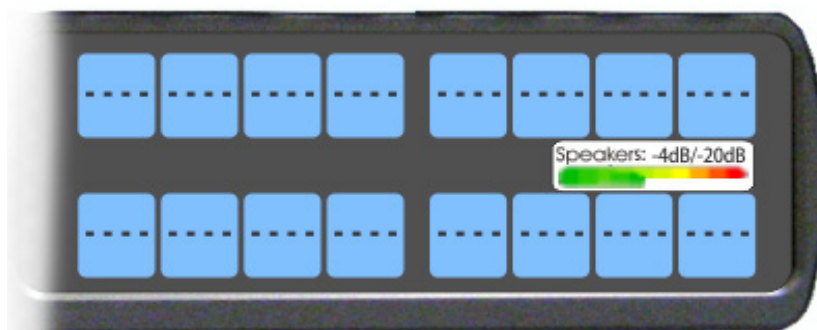
If the headset output volume is adjusted down to Mute, then the panel displays a flashing HDST MUTE icon as a warning there is no audio to either the front, rear, or both headsets.



Output volume ranges from +10 dB to -48 dB and Mute for speakers, and +24 dB to -48 dB and Mute for headsets.

**NOTE:** When speakers and/or headset volumes are ganged together a split volume bar displays in the panel display. 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.  
For more information on Ganged Volumes, see “Audio Options Menu, Ganged Vols” on page 85.

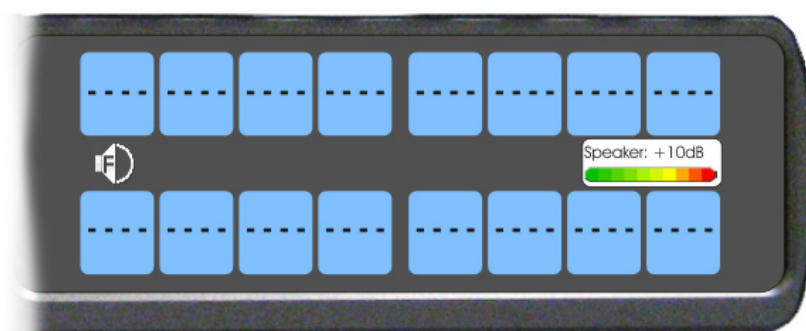




To **adjust output volume level**, do the following:

- > On the panel, turn the **MAIN VOLUME encoder** to the right to increase the volume for the selected output.  
OR  
Turn the **MAIN VOLUME encoder** to the left to decrease the volume for the selected output.

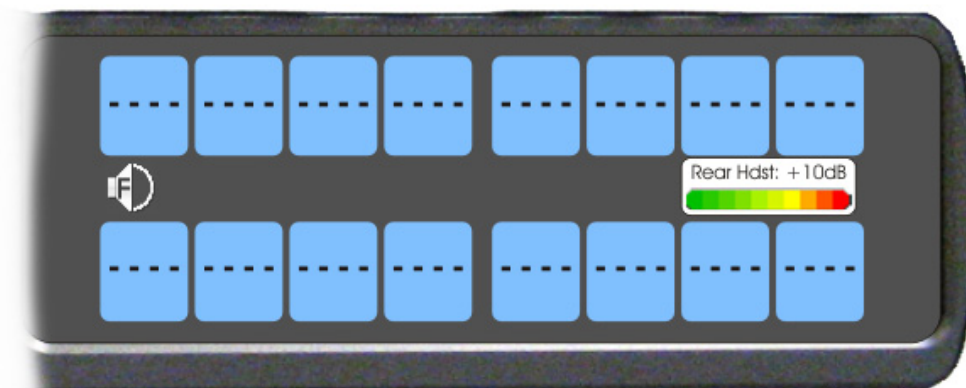
**NOTE:** When the MAIN VOLUME encoder is turned, the volume level bar appears in the panel display.



**NOTE:** Volume adjustments can be saved as power-up defaults using “Menu System, Save Config” on page 95.

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

- > On the panel, push the **MAIN VOLUME encoder** once.  
*The main volume focus switches to the next available output and displays above the volume level bar.*



## Aux Volume Adjustments

By default, the **Aux Volume** shaft encoder knob adjusts the selected input volume, which can include Aux 1–2, Matrix Input, or OMNEO 1-2, depending on whether the connection is via OMNEO or AIO. AUX input must be enabled and be mixed to a destination, otherwise it's volume cannot be adjusted.

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

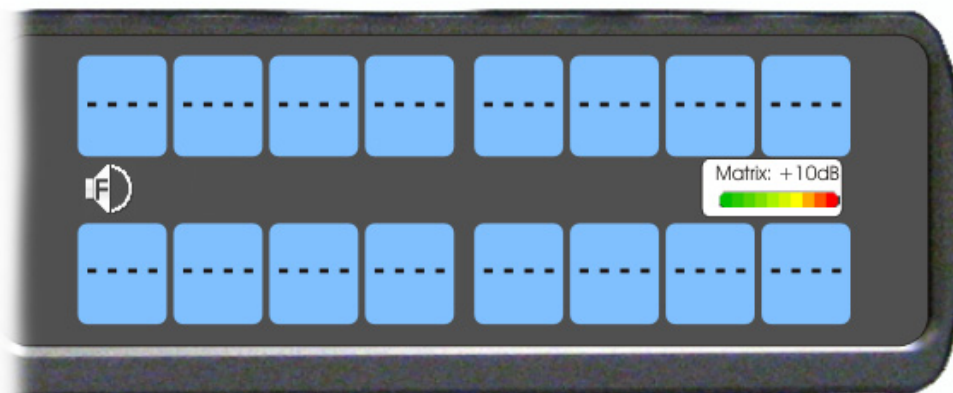
**NOTE:** When the Matrix Input volume is adjusted down to Mute, then the panel displays a flashing MTX MUTE icon as a warning there is no audio from the Matrix.



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

- > On the panel, 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 panel display.

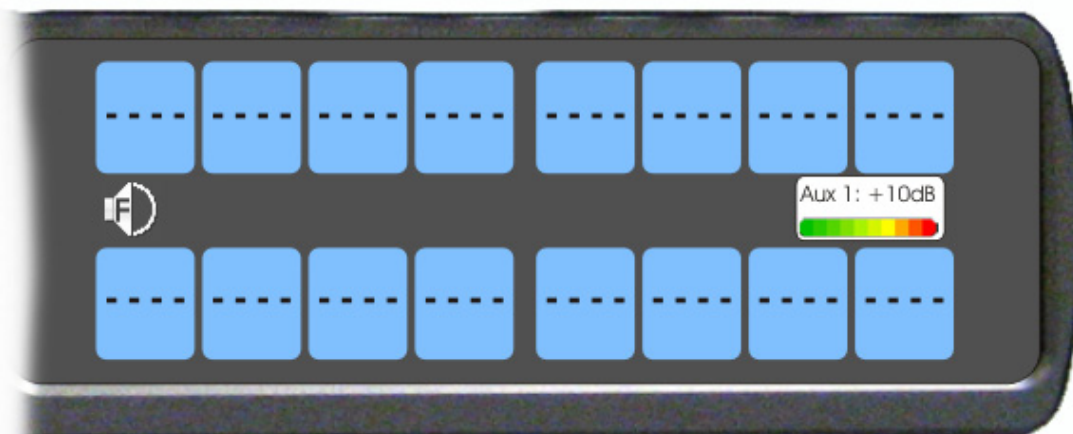


**NOTE:**

- Volume adjustments can be saved as power-up defaults using “Menu System, Save Config” on page 95.
- The inputs are available if they are enabled and mixed to an output.

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

- > On the panel, push the **AUX VOLUME shaft encoder** once.  
*The aux volume focus switches to the next available input.*



---

## Setup Pages

**Setup Pages** are used to allow access to more key assignments than physical keys on the panel. This is useful for sharing a panel because setup pages can be used to swap between the key assignments used for each person. An alternative to Setup Pages is Panel Swap (see “Key Options Menu, Panel Swap” on page 91).

Up to 32 *setup pages* can be configured for program sources and for IFBs. Each Setup page has eight program source or eight IFB assignments.

**NOTE:** To add key assignments to the setup pages, see “Menu System, Key Assign Menu” on page 90.

To **open and assign setup pages**, do the following:

1. Press the **PAGE** key.  
*The Page menu appears in the display screen.*
2. Enter **one or two digits (page number)**.  
OR  
Press **SEL** to enter graphical mode.

**NOTE:** By pressing SEL, you no longer have to complete Step 3.

3. Tap a **key** to assign that page to the key row.

To **toggle between setup pages**, do the following:

---

**IMPORTANT:** You must be in graphical page mode to be able to toggle between pages.

---

1. Using the left and right arrows, change the **page on the current key group**.
2. Press the **SEL** key (or wait 2 seconds for auto-select to engage).

To **change the highlighted key row in the graphical mode**, do the following:

- > Using the FWD/BACK or UP/DOWN keys, change the **highlighted key row**.

To **change the highlighted key group from program source keys to the IFB keys**, do the following:

- > Press an **IFB** key.  
OR  
Press the **SHIFT + RIGHT** buttons.

To **change the highlighted key group from IFB keys to program source keys**, do the following:

- > Press a **Program Source** key.  
OR  
Press the **SHIFT + LEFT** buttons.

## User Programmable Buttons

A **UPG** (User Programmable Button) gives you the option to assign frequently used menu items to a single button on the panel, eliminating the need to navigate through the menu structure. Not all menu items can be programmed to the UPG buttons, 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 panel display showing *Cannot save this menu position*.

**NOTE:** You can program a UPG key to activate the screen saver option on the panel. For more information, see “To activate the screen saver from a UPG key” on page 53.

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

**NOTE:** The UPG buttons can be cleared using Key Options|Clear from the panel menu.

To **assign a menu item to a UPG button on the panel**, do the following:

1. On the PAP-5032 keypad, press the **MENU button**.  
*The Information menu appears.*
2. Using the arrow buttons, navigate to the **menu item** you want to assign to a UPG button.
3. Press and hold the **UPG button** for two seconds.  
*Menu position saved appears in the panel display.*

To **assign a menu item to a UPG button using the SHIFT menu**, do the following:

1. On the keypad, press the **MENU button**.  
*The Information menu appears.*
2. Using the arrow buttons, navigate to the **menu item** you want to assign to a UPG button.
3. Press the **SHIFT button** and then hold the **UPG button** for two seconds.  
*Menu position saved appears in the panel display.*

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

1. On the keypad, press the **MENU button**.  
*The Information menu appears.*
2. From the Information menu, using the arrow buttons, select **Service**.
3. Press the **SEL button**.  
*The Service menu appears.*
4. Using the arrow buttons, select **Local GPIO**.
5. Press the **SEL button**.  
*GPIO Inputs and GPIO Outputs appears in the panel display.*
6. Using the arrow buttons, select **GPIO Outputs**.
7. Press the **SEL button**.  
*Relay 1 and Relay 2 appear in the panel display.*
8. Using the arrow buttons, select the **Relay 1** or **Relay 2**.
9. Press the **SEL button**.  
*Not Assigned, UPG 1 or UPG 2 appears in the panel display.*
10. Using the arrow buttons, select a **UPG button**.  
*The relay is assigned to the desired UPG button.*

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

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

1. On the keypad, press the **MENU button**.  
*The Information menu appears.*
2. Using the arrow buttons, select **Service**.
3. Press the **SEL button**.  
*The Service menu appears.*
4. Using the arrow buttons, select **Scrn Saver**.  
*Activate, Delay and Mode appear.*
5. Using the arrow buttons, select **Activate**.
6. Press the **SEL button**.  
*The screen saver activates on the panel.*
7. Press and hold the **UPG button** you want to assign this option to for two seconds.  
*Menu position saved appears in the panel display and the screen saver feature is assigned to the UPG button.*

Other Common UPG Assignments available:

- UPG Button to trigger panel swap, see “Key Options Menu, Panel Swap” on page 91.
- UPG Buttons to turn keys off with a single press, see “Key Options Menu, Turn Off” on page 93.

Panel Color Window

The **AZedit Keypanel Color** window, shown in Figure 11, is used to change the text and background colors assigned to function types, key assignments, 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.

To open the **Keypanel Color** window, do the following:

- > From the System menu, select **Miscellaneous|Keypanel Colors**.  
*The Keypanel Color window appears.*

**NOTE:** Key colors are associated with assignments and assignment types, not the physical keys they are assigned to. Changes are reflected on all keypanels displaying the assignment (if they are capable of displaying customer colors).

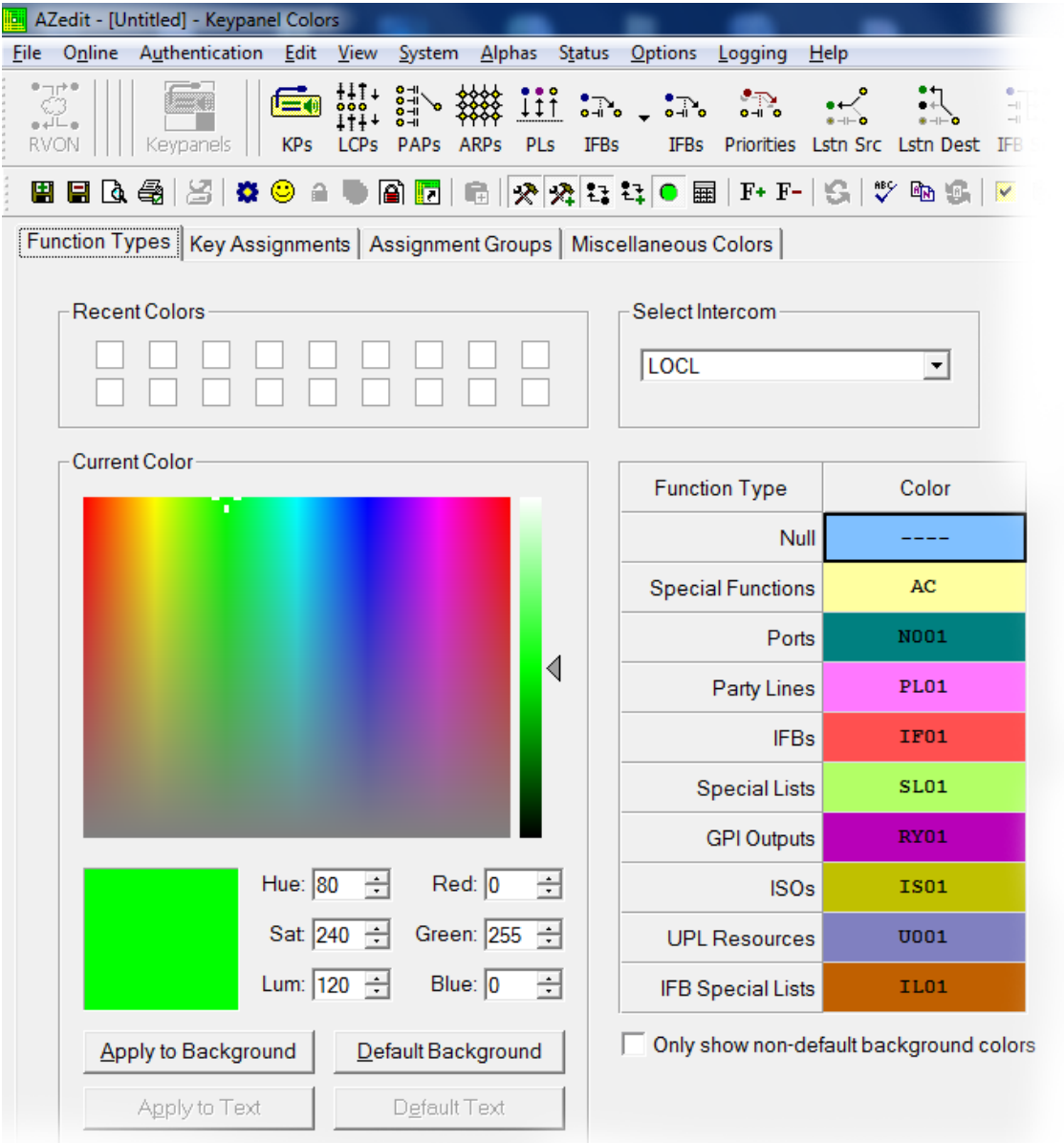


FIGURE 11. Keypanel Colors Window

---

## Function Types Page

The **Function Types** page, shown in Figure 11, is used to change the default colors assigned to the various panel function types.

**NOTE:** Only colors assigned to Null, Ports, and IFBs affect the PAP-5032.

### *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.

---

## 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 (current color cell), whether from the color palette or recent colors. Also, using the Hue, Sat, Lum, Red, Green, and/or Blue spin boxes, you can adjust the selected color to create a unique color for the function type.

**NOTE:** You can drag and drop colors from the color picker or recent color check boxes, and drop it on the background or text area of one of the cells in the Color Grid (Figure 12 on page 56). You can also select a color in the Color Grid and drop and drag it to the Current Color Cell field. By holding down the Ctrl key on the keyboard, you can select multiple cells in the Color Grid, thus allowing you to apply color to multiple key assignments.

### *Apply To Background Button*

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

### *Default Background Button*

The **Default Background** button is used to reset the background color to the default color.

### *Apply To Text Button*

The **Apply to Text** button is used to apply the color selection to the text of the type of assignment.

### *Default Text Button*

The **Default Text** button is used to reset the text color to the default color of the type of assignment.

Color Grid

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

FIGURE 12. Color Grid

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.

**NOTE:** Only colors assigned to Null, Ports, and IFBs affect the PAP-5032.

Color Column

The **Color** column displays the current text and background colors 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.

Only Show Non-Default Background Colors Check Box

The **Only Show Non-Default Background Colors** check box, if selected, shows colors only for function types set to a color other than their default color.



## Key Assignment Page

The **Key Assignment** page, shown in Figure 13, 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.

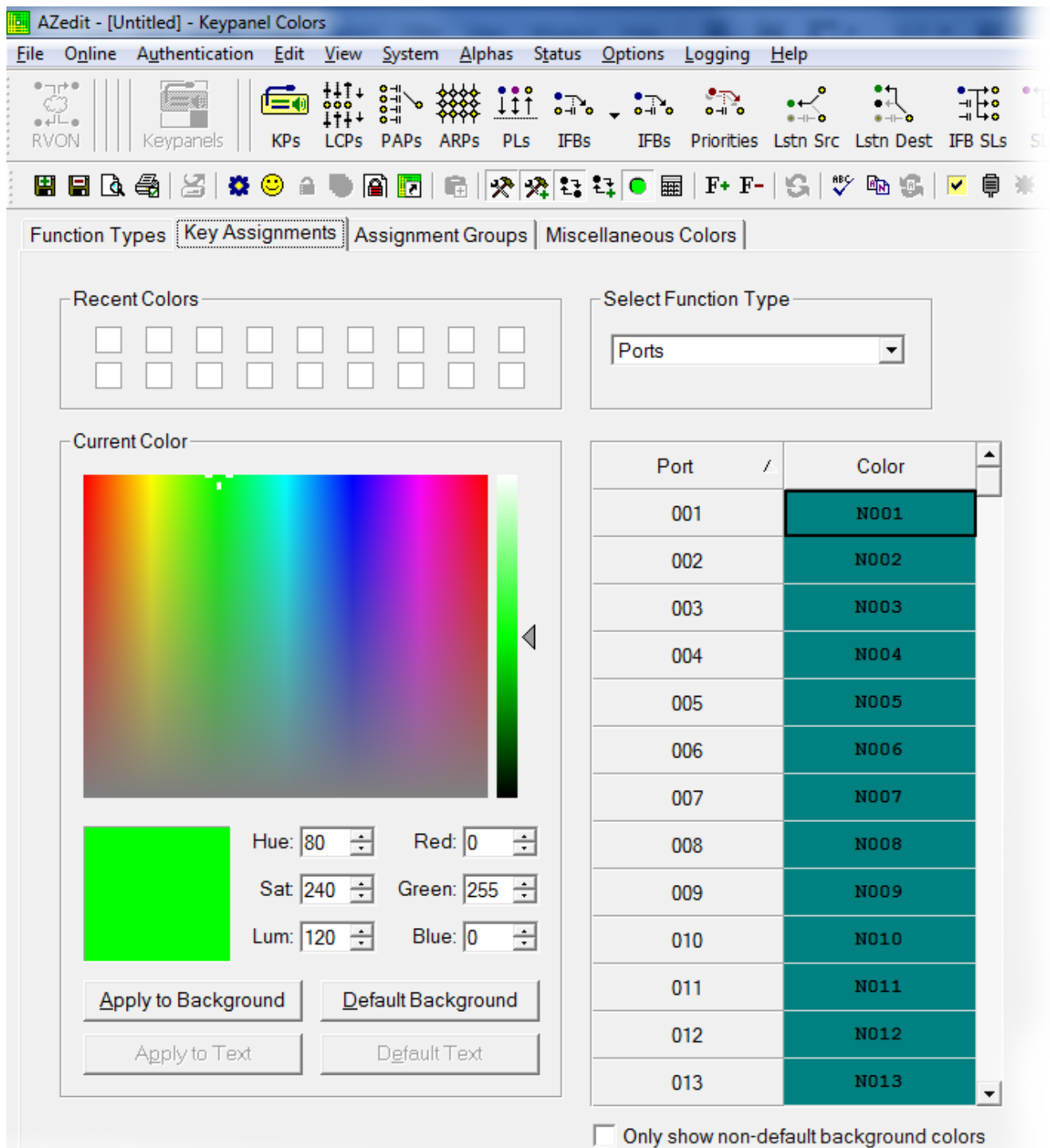


FIGURE 13. Key Assignments Page

---

**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.

**NOTE:** Only colors assigned to Null, Ports, and IFBs affect the PAP-5032.

**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.

## Miscellaneous Colors Page

The **Miscellaneous Colors** page, shown in Figure 14, is used to change the colors of the talk and listen indicators seen on the KP-Series panel when talk and/or listen is activated.

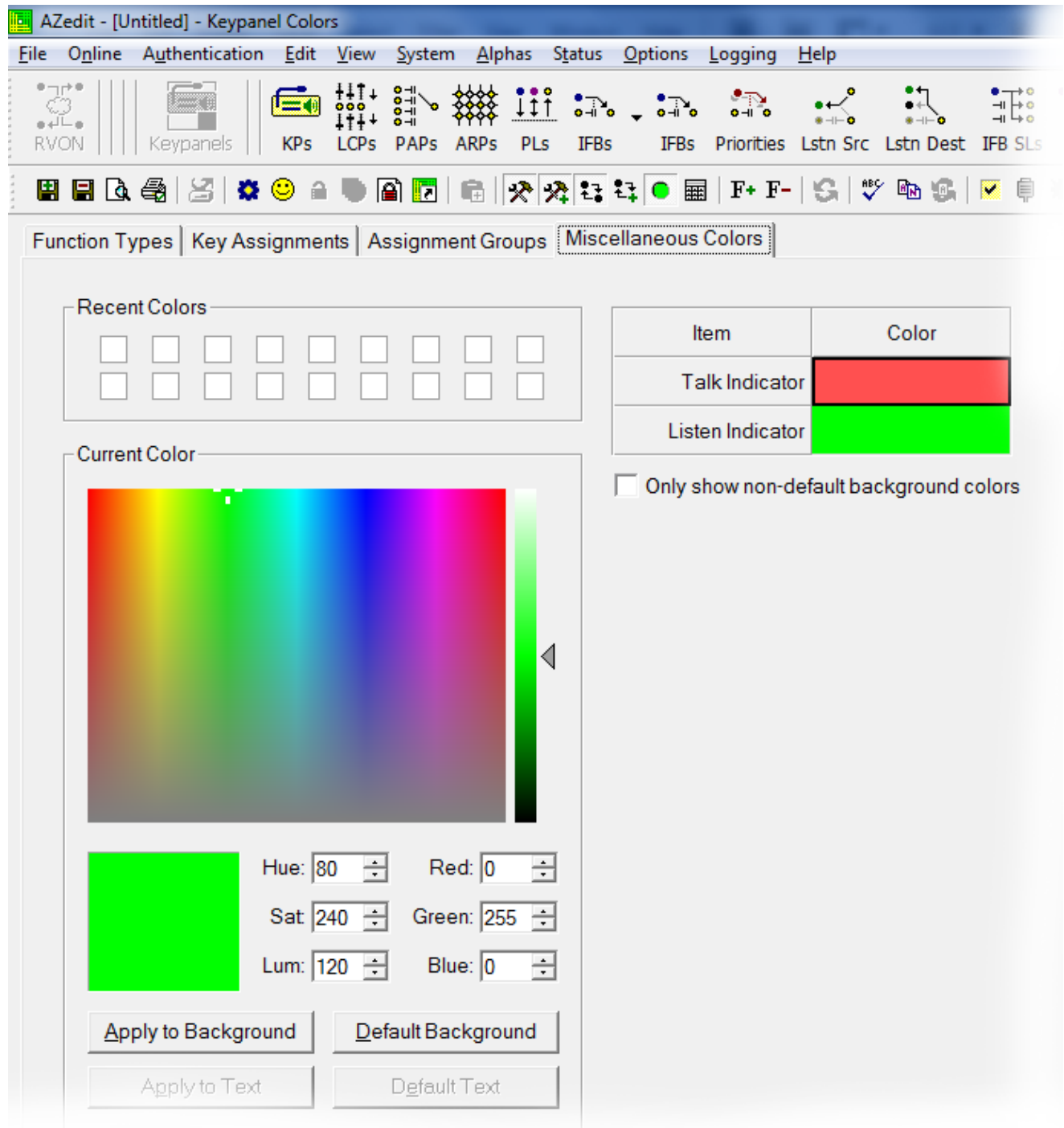


FIGURE 14. Miscellaneous Colors Page

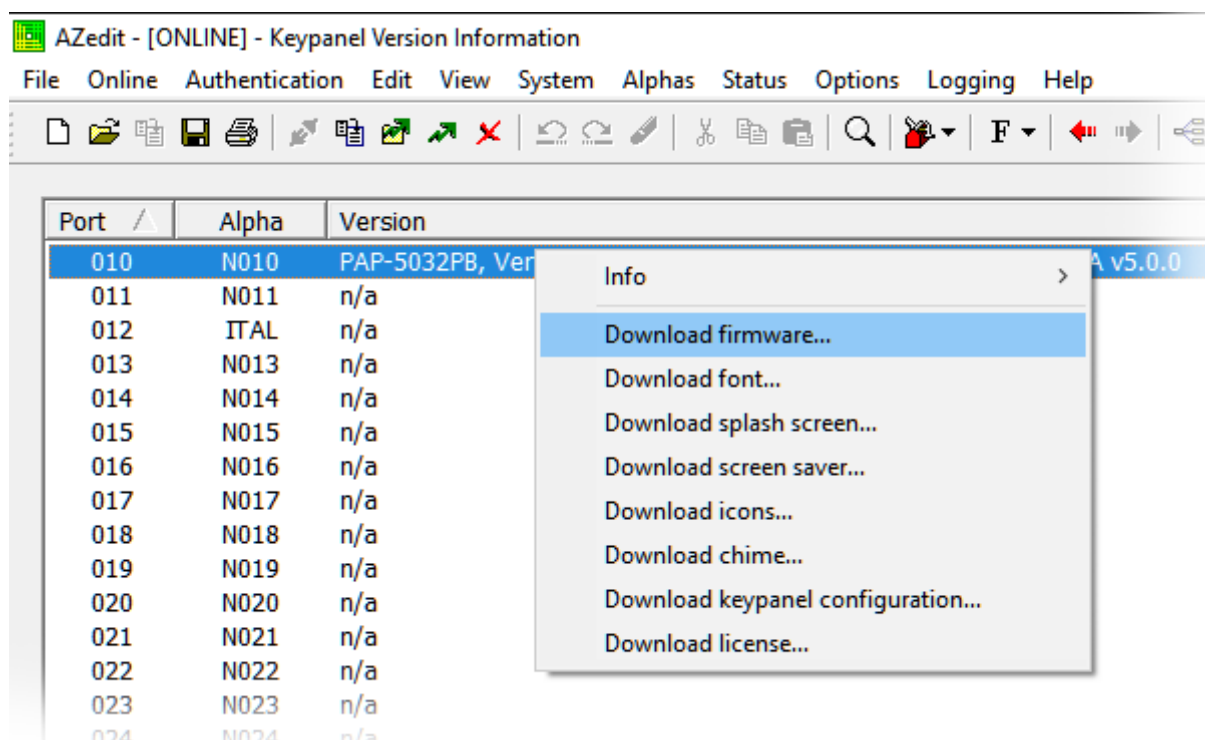


# Firmware Download

## Download Firmware to the Panel From AZedit

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

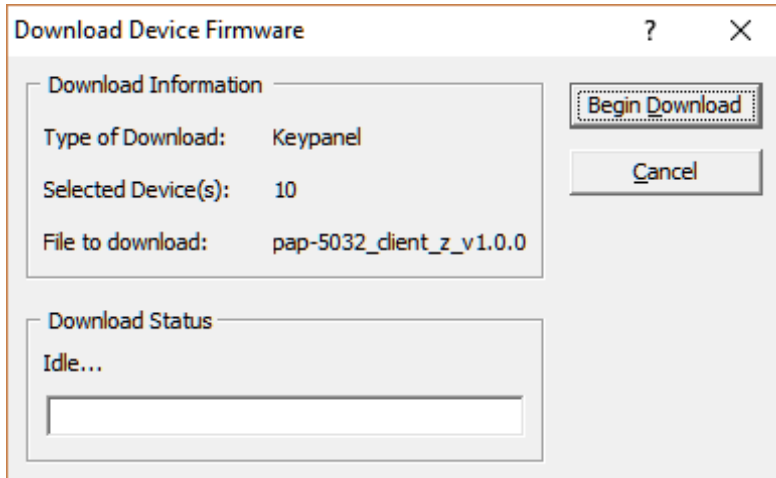
1. Open **AZedit**.
2. From the Status menu, select **Software Versions | Keypanels**.  
*The Port Status window appears.*
3. Find the **port number** where the PAP-5032 is assigned.



4. Highlight the **Port** (panel) to be updated.  
*You may select more than one 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**.

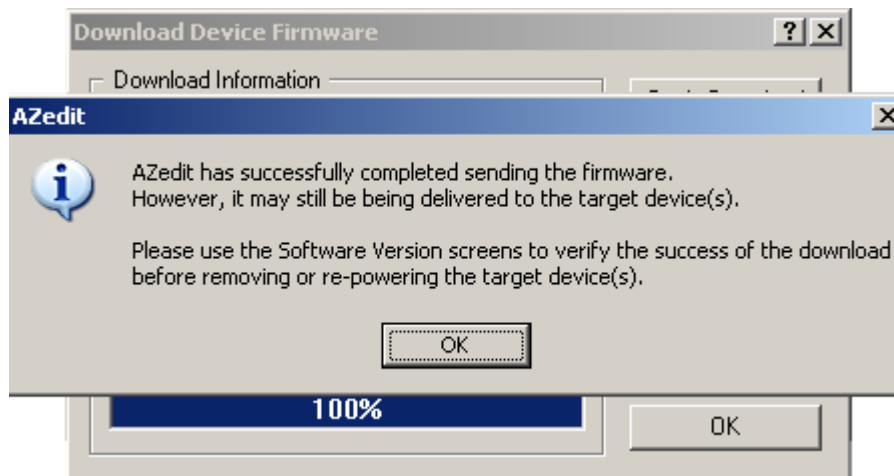
8. Click **Open**.

*The Download Device Firmware window appears.*



9. Click **Begin Download**.

*The download begins.*



10. Verify the panel displays the **FIRMWARE DOWNLOAD** message with a progression bar.

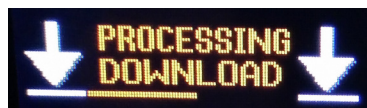
*Once the download is complete, the panel has to process the downloaded file.*



11. Click **OK**.

*The PAP-5032 firmware download finishes.*

12. Verify the panel displays the **PROCESSING DOWNLOAD** message with a progression bar.



**NOTE:** Processing Download is only shown if the downloaded firmware image is compressed.

13. Once the panel is finished processing the download, the panel begins to reprogram.

*The panel flashes a REPROGRAMMING DO NOT POWER OFF message in the display panel.*

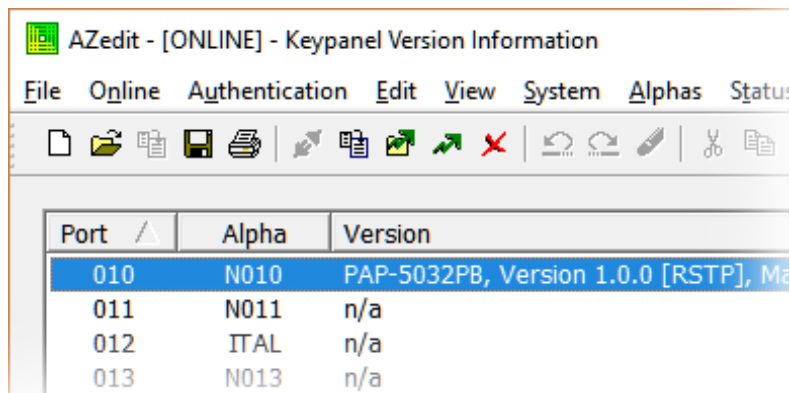


**NOTE:**

- This can take up to 2 minutes to complete if connected via OMNEO and up to 15 minutes to complete if connected via AIO. Use the Keypanel Version Information window to follow the progress of the download. Also, the panel displays Firmware Download on the panel display until the download is complete.
- The PAP-5032 resets itself once the firmware download is complete and the flash reprogrammed.
- While the firmware is downloading, chunk progress is displayed by incremental blocks. Also, the panel displays an icon warning not to turn off the panel while the flash is being reprogrammed.

14. In the Keypanel Version Information window, verify the **version upgrade**.

**NOTE:** To get to the Keypanel Version Information window, select *Status|Software Versions|Kepanels*.



Port	Alpha	Version
010	N010	PAP-5032PB, Version 1.0.0 [RSTP], Ma
011	N011	n/a
012	ITAL	n/a
013	N013	n/a

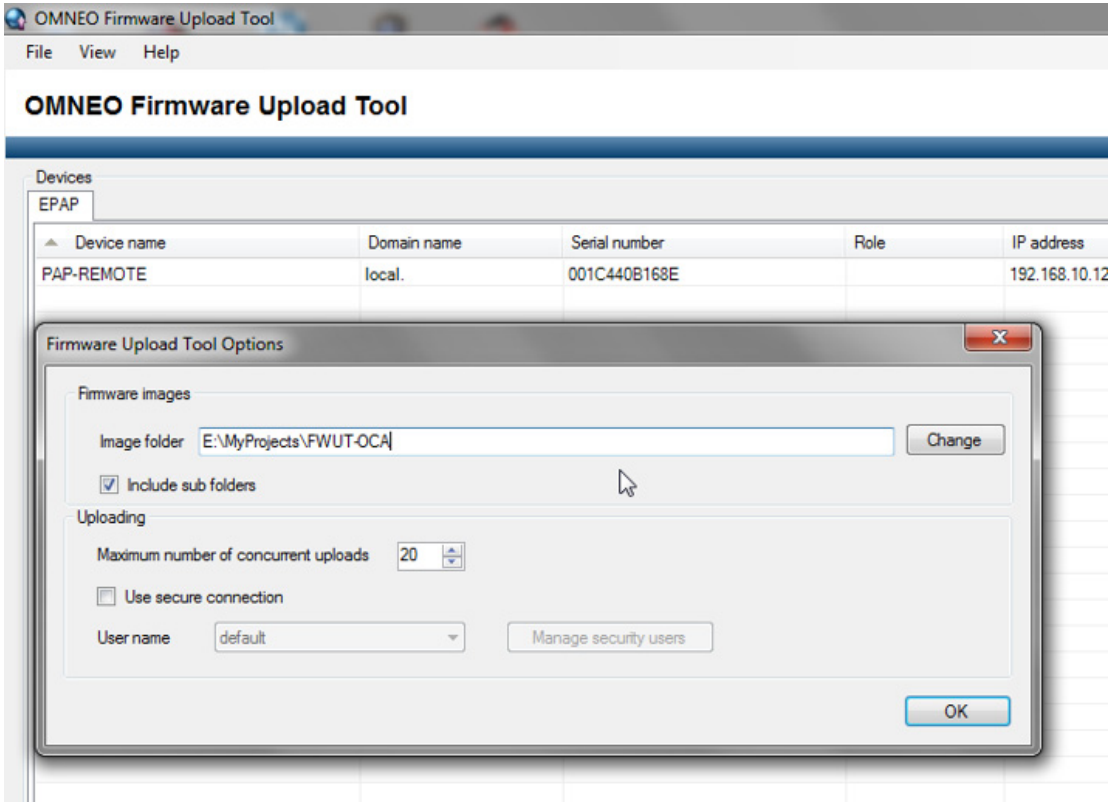
Download Firmware to the Panel Using the Firmware Upload Tool

Required Firmware version:

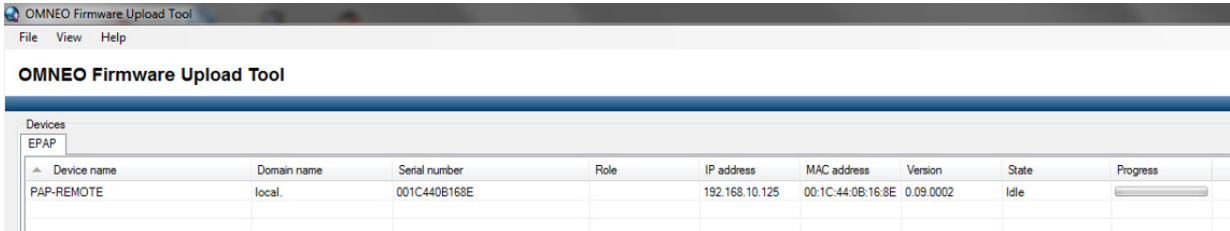
FWUT V5.4.0 or later

To download firmware to the panel, do the following:

- 1. Open the **Firmware Upload Tool**.
- 2. From the File menu, select **Options**.  
*The Firmware Upload Tool Options window appears.*



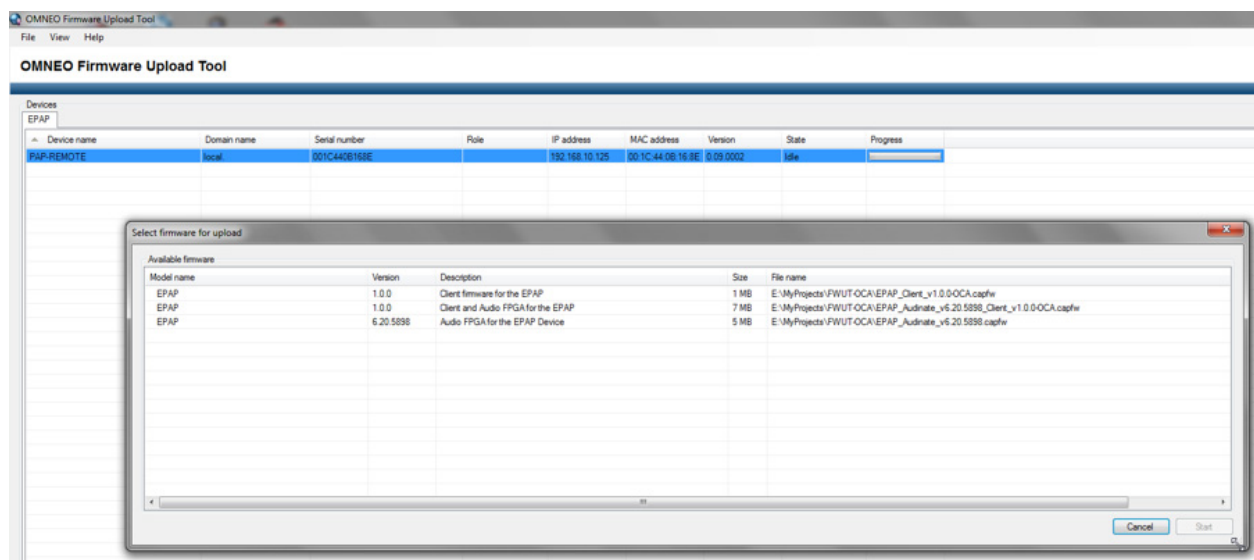
- 3. Click the **Change** button.  
*The folder network window appears.*
- 4. Navigate to the **folder** where the firmware resides.
- 5. Click **OK**.
- 6. Click **OK**, again.  
*The Firmware Upload Tool Options window closes.*
- 7. From the EPAP Device page, select the **device** you want to update.



- 8. Click the **Upload** button.  
*The Select Firmware for Upload window appears.*



9. From the list of firmware, select the **firmware** you want to download.



10. Click the **Start** button.  
*Once the firmware has been updated, the panel reboots automatically.*

### *Enable Downloading New Bootloader from the Panel*

The PAP-5032 uses the same boot loader as the KP-Series keypanels, but it requires bootloader v1.4.0 or later. If a bootloader with a version prior to v1.4.0 is downloaded to the PAP-5032, it will not be programmed to flash.

### *Download Firmware Using the Bootloader*

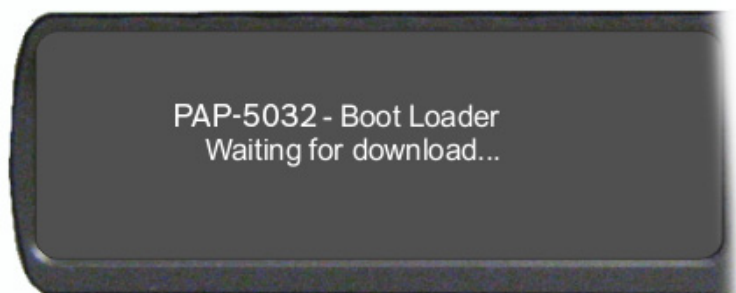
The **Bootloader** is used to upload a new bootloader image or to upgrade the panel firmware if it is corrupt or fails and makes downloading of new firmware impossible.

If the panel firmware is corrupt, the panel may boot automatically into the bootloader. However, if the panel firmware appears valid, but fails to run properly, you may need to force the panel into the bootloader in order to download the new firmware.

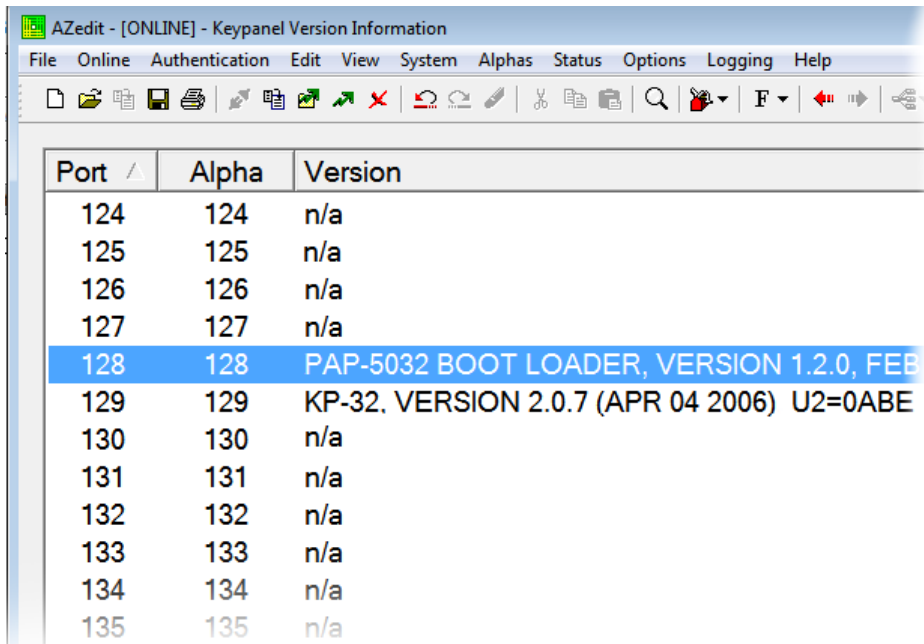
### **Run the Bootloader**

To **run the bootloader**, do the following:

1. Power **off** the panel.
2. Verify the **PAP-5032 is powered off**, but still connected to the FRAME.
3. At the same time, press and hold **panel buttons 15 and 16** (the right-most two button of the bottom row), while you connect the **power cord** to the panel.  
*PAP-5032 Boot Loader Waiting for download... appears in the panel display.*



4. In AZedit, from the Status menu, select **Software Versions**.  
*The Software Versions popup menu appears.*
5. From the Software Versions popup menu, select **Keypanels**.  
*The Keypanel Version Information window appears.*

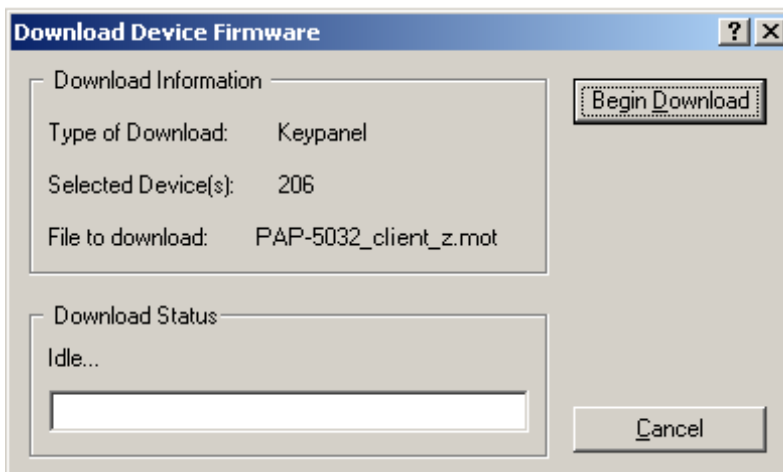


Port	Alpha	Version
124	124	n/a
125	125	n/a
126	126	n/a
127	127	n/a
128	128	PAP-5032 BOOT LOADER, VERSION 1.2.0, FEB
129	129	KP-32, VERSION 2.0.7 (APR 04 2006) U2=0ABE
130	130	n/a
131	131	n/a
132	132	n/a
133	133	n/a
134	134	n/a
135	135	n/a

6. From the Keypanel Version Information window, find the **port number** where the keypanel is assigned.

**NOTE:** Notice the Version column is showing PAP-5032 Bootloader Version 1.2.0 is shown.

7. Right-click on the **PAP-5032**.  
*A popup menu appears.*
8. From the popup menu, select **Download Firmware...**.  
*The Firmware Download navigation window appears.*
9. Navigate to and select your **firmware file** (i.e., PAP-5032\_client\_z.mot).
10. Click **Open**.  
*The Download Device Firmware window appears.*



**Download Device Firmware**

Download Information

Type of Download: Keypanel

Selected Device(s): 206

File to download: PAP-5032\_client\_z.mot

Download Status

Idle...

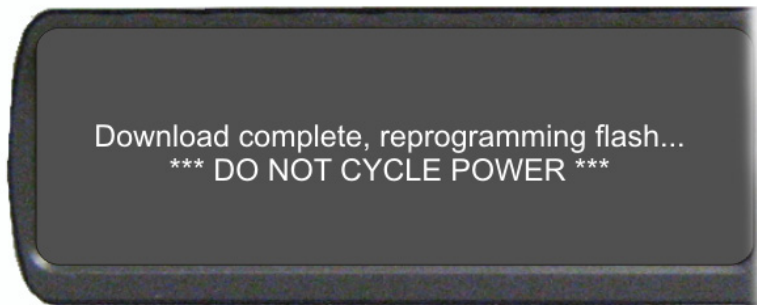
**Begin Download**

**Cancel**

11. Click **Begin Download**.  
*The Download begins and a popup message appears.*
12. Click **OK**.  
*The PAP-5032 firmware download finishes.*

**NOTE:** This can take up to 15 minutes to complete if connected via AIO. 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 panel display until the download is complete.

**NOTE:** Once the Boot Loader is finished downloading, it reboots itself and reprograms the flash.




---

### *Display the FPGA Version on the Panel*

To **display the FPGA version currently installed in the panel**, do the following:

1. While pressing the Main Vol and Aux Vol encoders on the front of the panel at the same time, press the **MENU button**.  
*The main menu appears in the panel display.*
2. Using the left and right arrow buttons, select **Service**.
3. Press the **SEL button**.  
*The Service menu options appear in the panel display.*
4. Using the left and right arrow buttons, select **FPGA Version**.
5. Press the **SEL button**.  
*Version X.X.X (where X represents the FPGA version numbers) appears in the panel display.*

---

### *Download and Upgrade the FPGA to the PAP-5032*

There are four (4) phases to upgrading the FPGA on a panel:

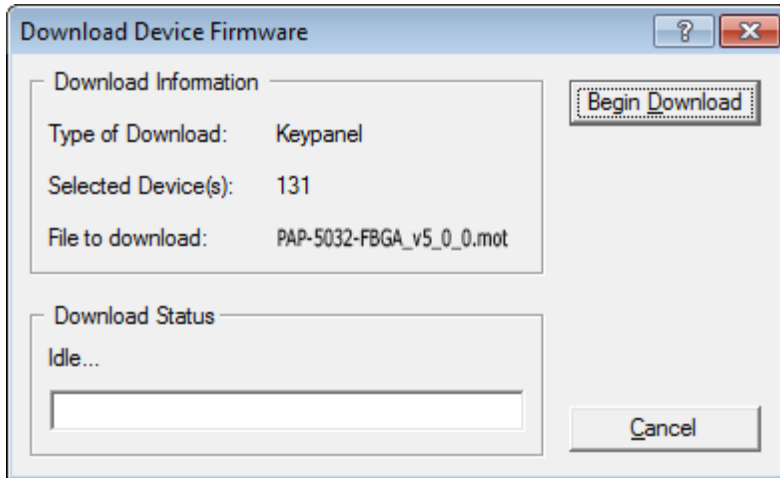
- Downloading the FPGA firmware to the matrix
- Downloading the FPGA firmware to the panel
- Processing the download
- Reprogramming the panel

To **download the FPGA to the panel**, do the following:

1. Open **AZedit**.
2. From the Status menu, select **Software Versions|Keypanels**.  
*The Keypanel Version Information window appears.*
3. Find the **port number** where the PAP-5032 is assigned.
4. Highlight the **Port** (panel) to be updated.  
*You may select more than one 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, navigate to the **FPGA file** you want to use.

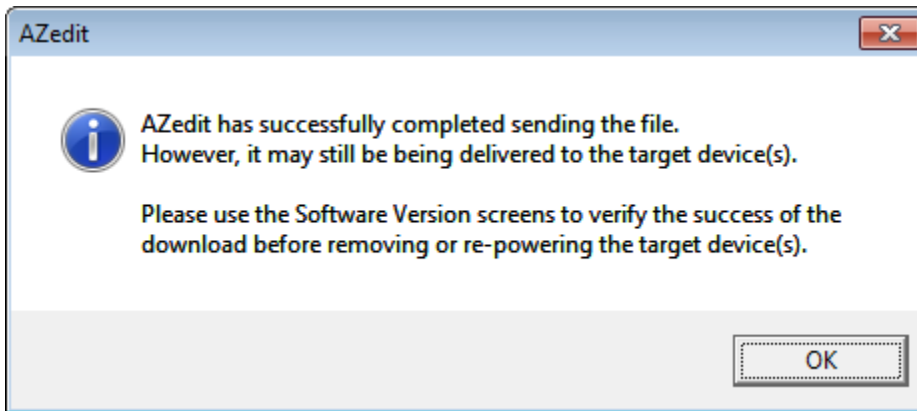
8. Click **Open**.

*The Download Device Firmware window appears.*



9. Click **Begin Download**.

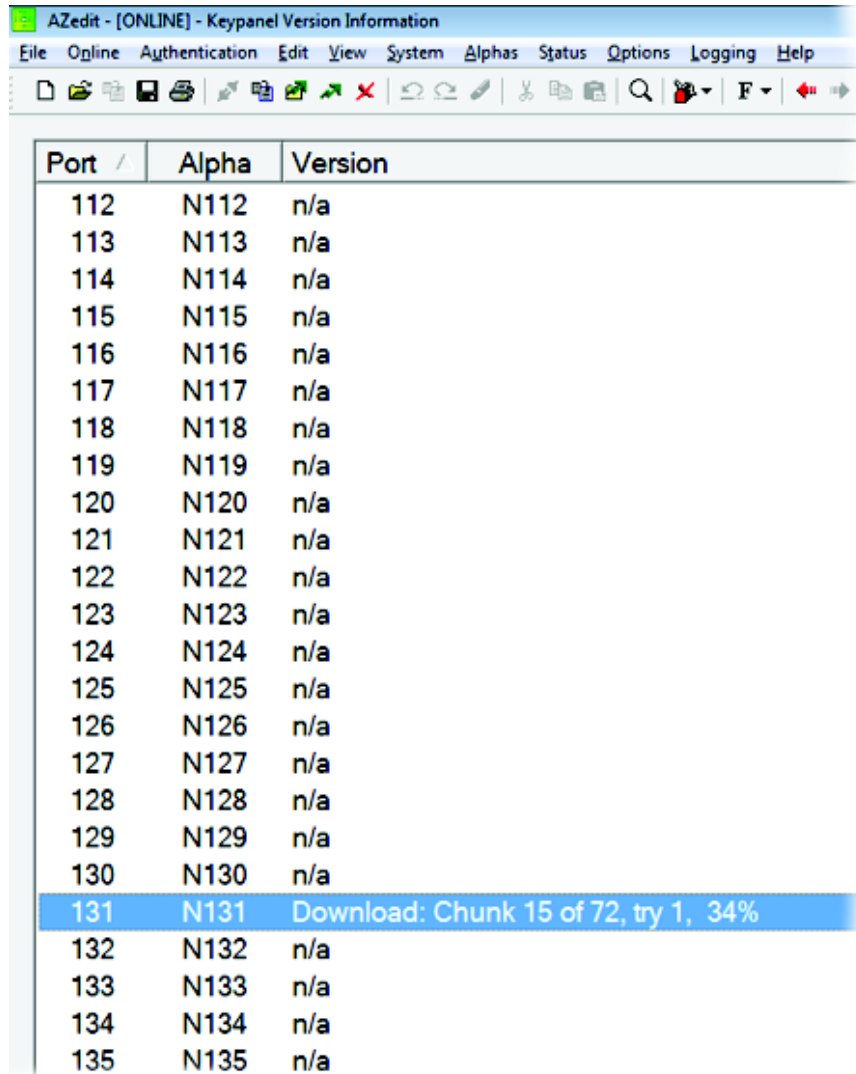
*The download begins. A progress bar appears to show the progress of the download.*



10. Click **OK**.

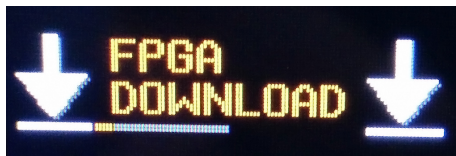
*The PAP-5032 firmware download to the Matrix finishes. The Download FPGA Firmware To The Panel begins.*

11. Verify the Keypanel Version Information window is displaying the **numbers of chunks (of data) transferred to the panel**.

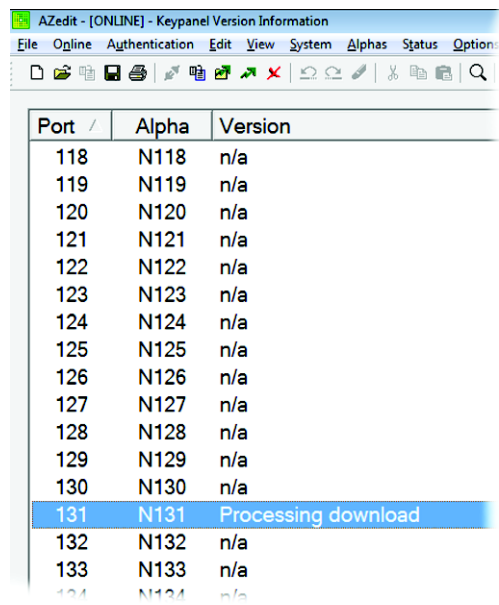


Port /	Alpha	Version
112	N112	n/a
113	N113	n/a
114	N114	n/a
115	N115	n/a
116	N116	n/a
117	N117	n/a
118	N118	n/a
119	N119	n/a
120	N120	n/a
121	N121	n/a
122	N122	n/a
123	N123	n/a
124	N124	n/a
125	N125	n/a
126	N126	n/a
127	N127	n/a
128	N128	n/a
129	N129	n/a
130	N130	n/a
131	N131	Download: Chunk 15 of 72, try 1, 34%
132	N132	n/a
133	N133	n/a
134	N134	n/a
135	N135	n/a

12. Verify the panel displays the **FPGA DOWNLOAD** message with a progression bar.  
*Once the download is complete, the panel has to process the downloaded file.*



13. Verify the Keypanel Version Information window displays **Processing download** on the panel port you chose.



Port /	Alpha	Version
118	N118	n/a
119	N119	n/a
120	N120	n/a
121	N121	n/a
122	N122	n/a
123	N123	n/a
124	N124	n/a
125	N125	n/a
126	N126	n/a
127	N127	n/a
128	N128	n/a
129	N129	n/a
130	N130	n/a
131	N131	Processing download
132	N132	n/a
133	N133	n/a
134	N134	n/a

14. Verify the panel displays **PROCESSING DOWNLOAD** with a progression bar.



Once the panel is finished processing the download, the panel begins to reprogram. The panel flashes a REPROGRAMMING: DO NOT POWER OFF message in the display panel. This can take several minutes.



Once the reprogramming is complete, the panel reboots.

---

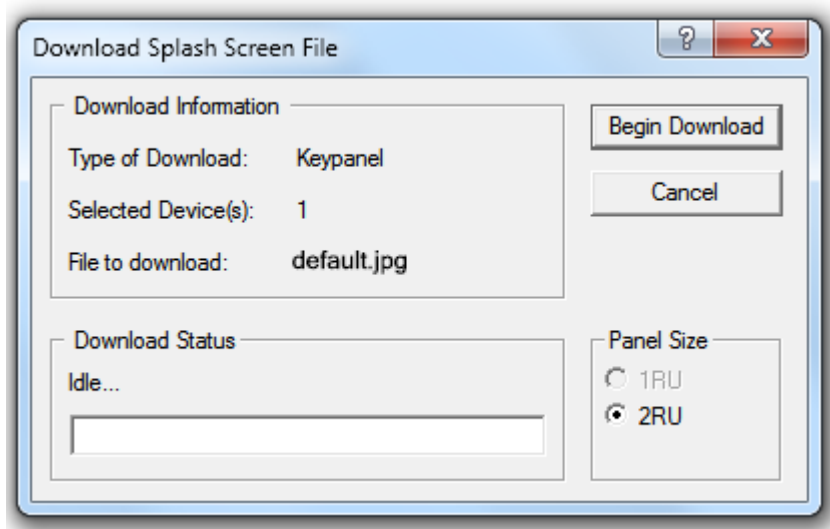
## Download a Splash Screen

---

**IMPORTANT:** The maximum bitmap size is 576 x 90. If the bitmap is smaller than the full screen dimensions, the panel centers the bitmap horizontally and vertically on the display and fills the background with the same color as the pixel in the top left corner of the splash screen.

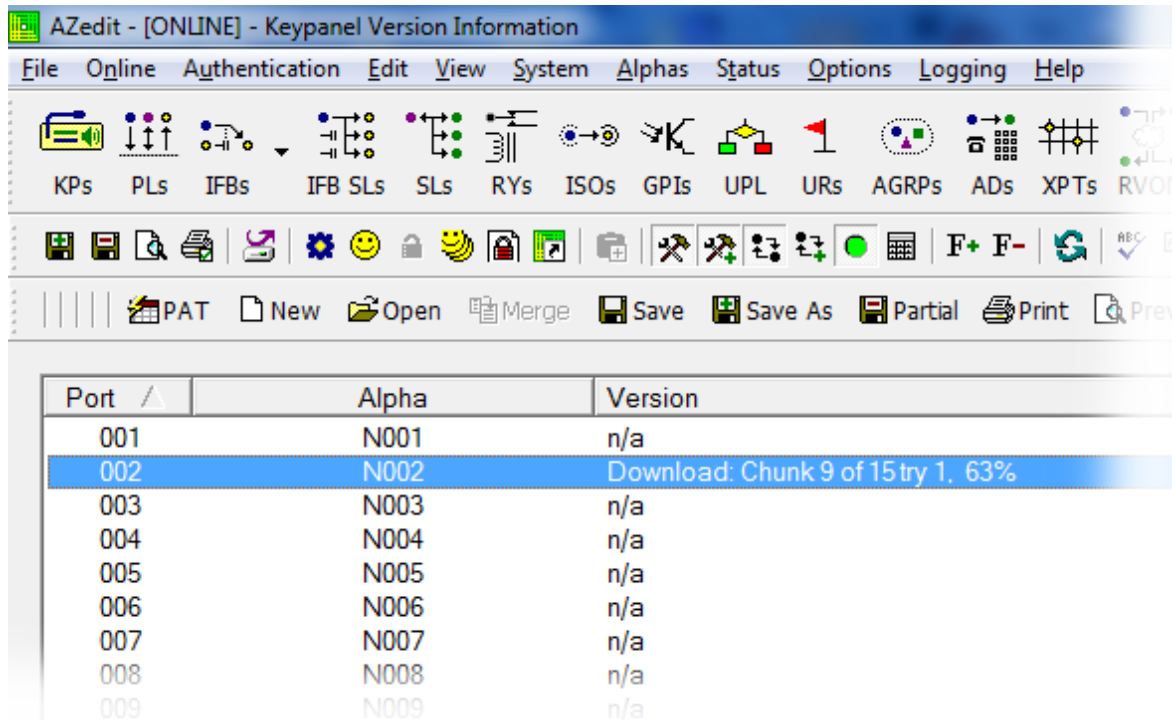
---

1. Open **AZedit**.
2. From the Status menu, select **Software Versions|Keypanels**.  
*The Keypanel Version Information window appears.*
3. Find the **port number** where the PAP-5032 is assigned.
4. Highlight the **Port** (panel) to be updated.  
*You may select more than one at a time by holding CTRL key down while you select.*
5. Right-click the **highlighted selections**.  
*A popup menu appears.*
6. Select **Download splash screen...**.  
*The Splash Screen Download window appears.*
7. Click **Open**.  
*The Download Splash Screen File window appears.*

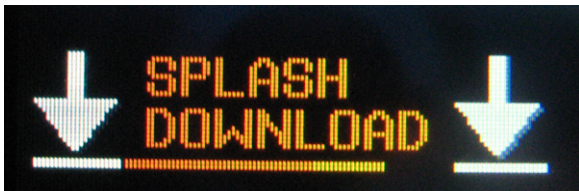


8. In the Panel Size group box, select **2RU**.
9. Click **Begin Download**.  
*The download begins. A progress bar appears to show the progress of the download. Once the download is complete the Download Splash Screen File window closes.*

10. Verify the Keypanel Version Information window is displaying the **numbers of chunks (of data) transferred to the panel**.



11. Verify the panel displays the **SPLASH DOWNLOAD** message with a progression bar.  
*Once the download is complete, the panel has to process the downloaded file.*



Once the panel is finished processing the download, the panel begins to reprogram. The panel flashes a REPROGRAMMING: DO NOT POWER OFF message in the display panel. This can take several minutes.

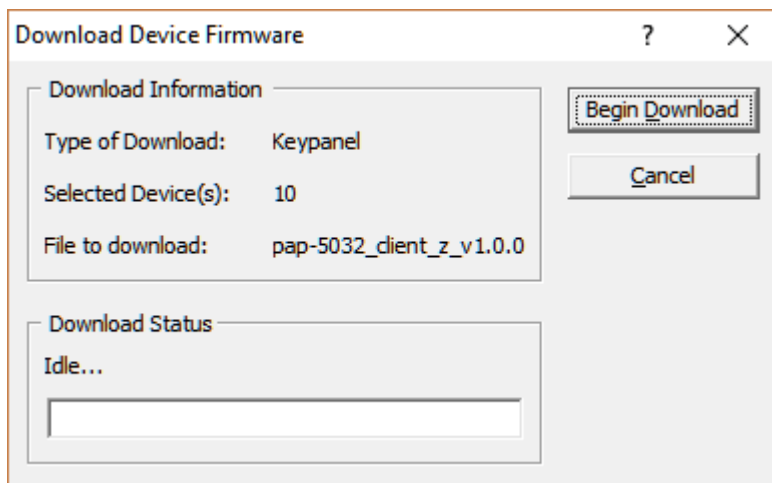


Once the reprogramming is complete, the panel reboots.

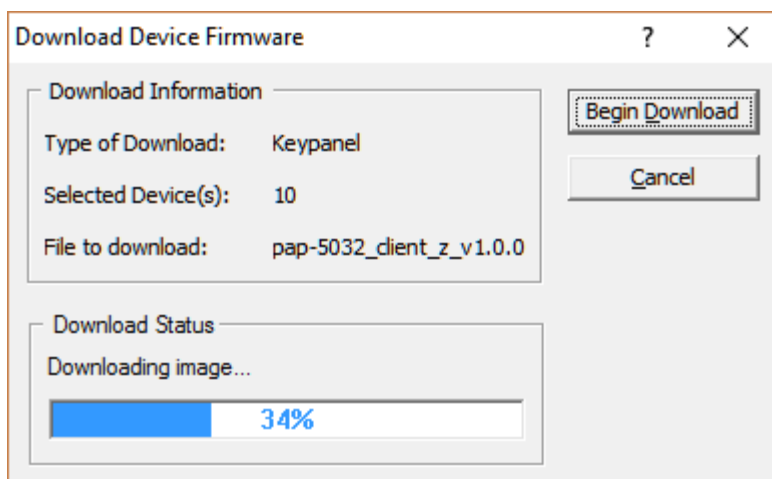


## Download a Font File

1. Open **AZedit**.
2. From the Status menu, select **Software Versions|Keypanels**.  
*The Keypanel Version Information window appears.*
3. Find the **port number** where the PAP-5032 is assigned.
4. Highlight the **Port** (panel) to be updated.  
*You may select more than one at a time by holding CTRL key down while you select.*
5. Right-click the **highlighted selections**.  
*A popup menu appears.*
6. Select **Download font...**  
*The Font Download window appears.*
7. Navigate to the **font file (.kpf)** you want to use.
8. Click **Open**.  
*The Download Keypanel Font window appears.*

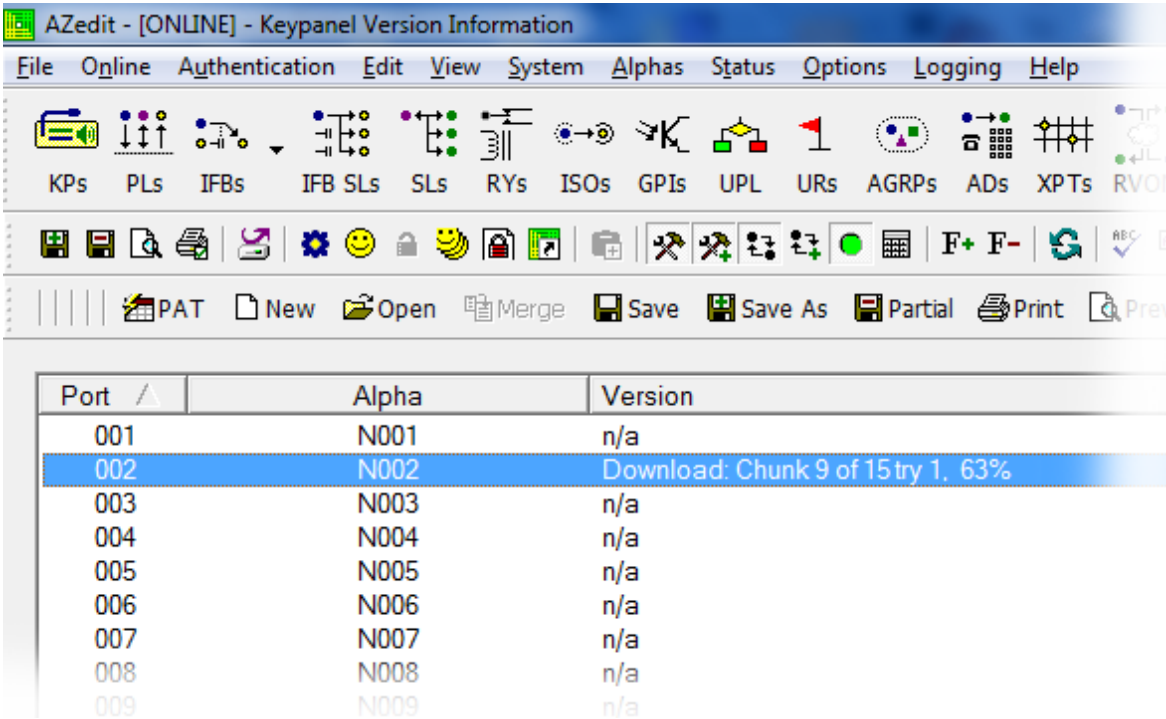


9. Click **Begin Download**.  
*The download begins. A progress bar appears to show the progress of the download.*

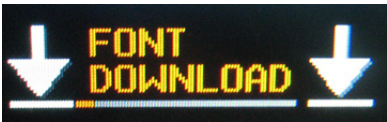


*Once the download is complete the Download Keypanel Font window closes.*

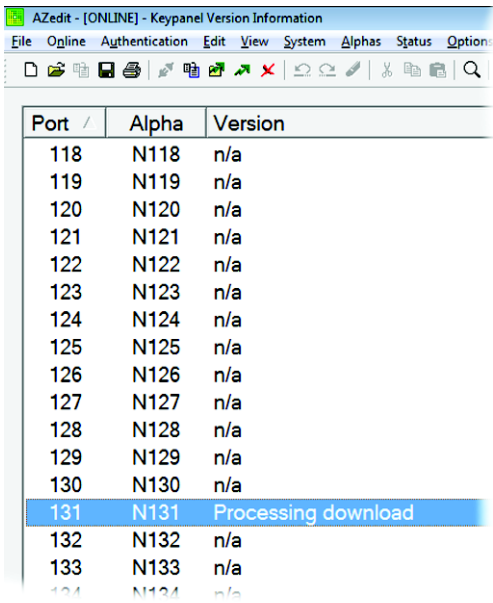
10. Verify the Keypanel Version Information window is displaying the **numbers of chunks (of data) transferred to the panel**.



11. Verify the panel displays the **FONT DOWNLOAD** message with a progression bar.  
Once the download is complete, the panel has to process the downloaded file.



12. Verify the Keypanel Version Information window displays **Processing download** on the panel port you chose.



13. Verify the panel displays the **PROCESSING DOWNLOAD** message with a progression bar.



Once the panel is finished processing the download, the panel begins to reprogram. The panel flashes a Reprogramming: Do Not Power Off message in the display panel. This can take several minutes.



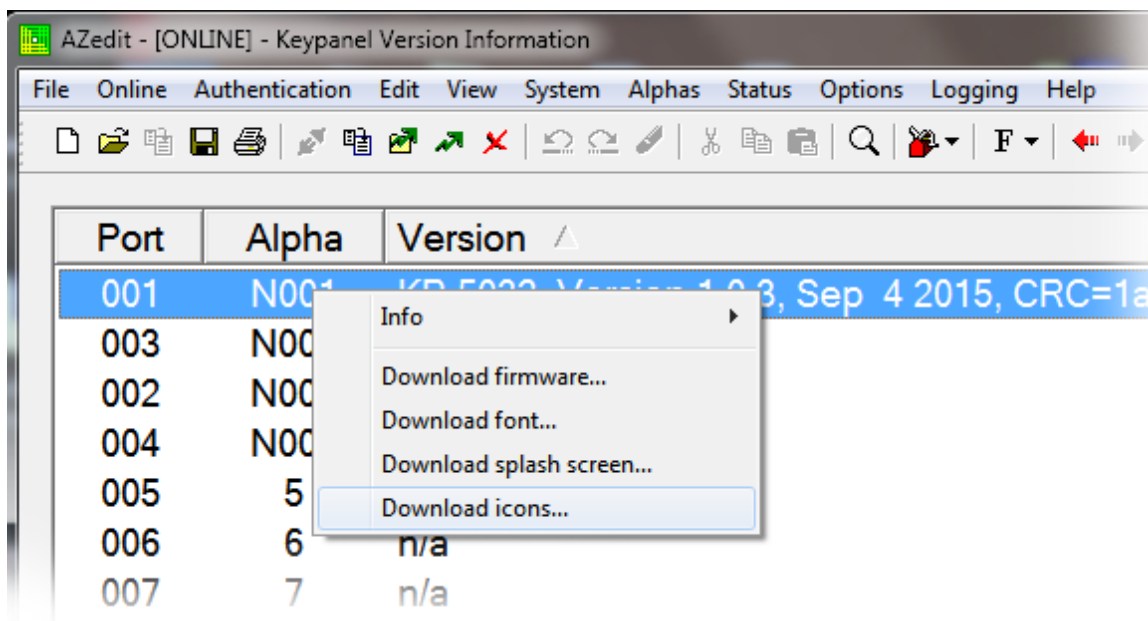
Once the reprogramming is complete, the panel reboots.

## Download an Icon File

**IMPORTANT:** The following instructions can be used for either panel icons or tally (key overlay) icons.

To **download an icon file**, do the following:

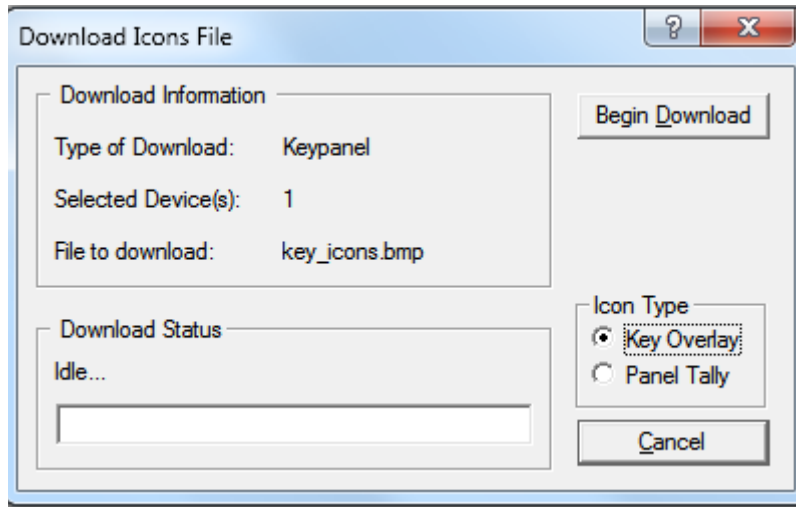
1. Open **AZedit**.
2. From the Status menu, select **Software Versions|Keypanels**.  
*The Keypanel Version Information window appears.*
3. Find and select the **Port (panel)** to be updated.  
*You may select more than one at a time by holding the CTRL key down while you select.*
4. Right-click the **highlighted selection**.  
*A popup menu appears.*



5. Select **Download icons....**  
*The Icon Download window appears.*
6. Navigate to the **icon file (.bmp or .jpg)** you want to use.

7. Click **Open**.

*The Download Icon File window appears.*



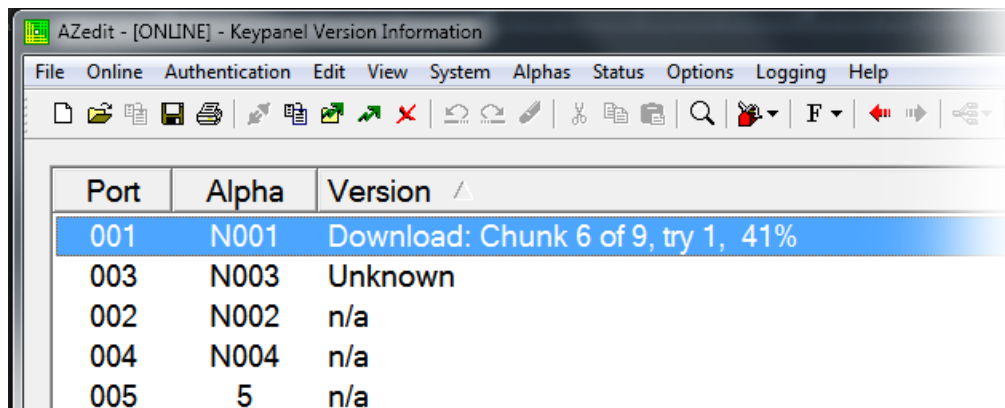
8. Verify the correct **Icon Type radio button** is selected – Key Overlay or Panel Tally radio button.

9. Click **Begin Download**.

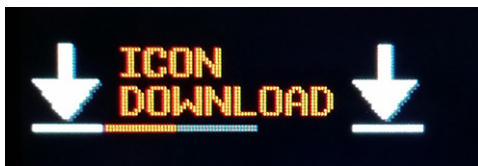
*The download begins. A progress bar appears showing the progress of the download.*

*Once the download is complete the Download Keypanel Font window closes.*

10. Verify the **Keypanel Version Information window displays the numbers of chunks (of data) transferred to the panel**.



11. Verify the panel displays the **ICON DOWNLOAD** message with a progression bar.



Once the panel is finished, it begins to reprogram. The panel flashes a REPROGRAMMING: DO NOT POWER OFF message in the display panel. This can take several minutes.



Once the reprogramming is complete, the panel reboots.

# Menu System

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**NOTE:** A menu system quick reference chart is located at “Panel Menu Quick Reference” on page 113.

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## Main Menu Access

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**IMPORTANT:** For more detailed information on Basic Key operation, see “Menu Navigation and Shaft Encoder Knobs” on page 44.

---

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 (present when the panel is running OMNEO firmware or if there is an OEI-2 connected to the AIO port)*

*RVON Offers (present when the panel is running RVON firmware or if there is an RVON-IO connected to the AIO port)*

*Save Config*

*Service*

To access the main menu structure, do the following:

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

*The Information menu structure displays across the middle of the panel display.*



2. Using the arrow buttons on the keypad, navigate through the **menu options**.

3. Press the **SEL** button.

*The submenu for the selection appears.*

## Menu System, Audio Options

Available options for this menu are:

*Advanced*  
*Ganged Vols*  
*Headset Spkr*  
*Inputs*  
*Max Volume*  
*Min Volume*  
*Reference Level*  
*Speaker*

## Audio Options Menu, Advanced

- Filters
- Gating
- Metering
- Mixing
- Mix Mode

### Filters

**Filters** allow you to add a bandpass filter, a preset frequency response (equalization) filter or a notch filter to the Matrix In audio source.

#### Bandpass

The **Bandpass** menu is used to enable using bandpass filters as well as set a low and high frequency range where frequencies within the two frequency points are passed and anything outside of the range is rejected.

To **configure a bandpass range for Inputs**, do the following:

1. Starting at the Audio Options|Advanced|Filters menu, select **Bandpass**.
2. Press the **SEL button**.  
*Inputs and Outputs appears in the panel display.*
3. Using the arrow buttons, select **Input**.
4. Press the **SEL button**.  
*Aux 1, Aux 2, OMNEO 1, and OMNEO 2 appear in the panel display.*
5. Using the arrow buttons, select either **Aux 1**, **Aux 2**, **OMNEO 1** or **OMNEO 2**.
6. Press the **SEL button**.  
*Frequencies and Mode appear in the panel display.*
7. Using the arrow buttons, select **Mode**.  
*Disabled and Enabled appear in the panel display.*
8. Using the arrow buttons, select **Enabled**.
9. Press the **SEL button**.  
*An arrow appears next to the selected option.*
10. Press the **CLR button**.  
*Frequencies and Mode appear in the panel display.*
11. Using the arrow buttons, select **Frequencies**.
12. Press the **SEL button**.  
*The Low Freq scroll box and the High Freq scroll box appear in the panel display.*
13. Using the up and down arrow buttons, select the **low frequency** you desire.
14. Using the left and right arrow buttons, select the **high frequency scroll box**.
15. Using the up and down arrow buttons, select the **high frequency** you desire.

To **configure a bandpass range for Outputs**, do the following:

1. Starting at the Audio Options|Advanced|Filters menu, select **Bandpass**.  
*Inputs and Outputs appears in the panel display.*
2. Using the arrow buttons, select **Output**.
3. Press the **SEL button**.  
*Front Hdst and Rear Hdst appear in the panel display.*
4. Using the arrow buttons, select the **output** you desire to modify.

If Front Hdst or Rear Hdst is chosen:

- a. Press the **SEL button**.  
*Both, Left Chan, and Right Chan appear in the panel display.*
- b. Using the left and right arrow buttons, select either **Both**, **Left Chan**, or **Right Chan**.

5. Press the **SEL button**.  
*Frequencies and Mode appear in the panel display.*
6. Using the arrow buttons, select **Mode**.  
*Disabled and Enabled appear in the panel display.*
7. Using the arrow buttons, select **Enabled**.
8. Press the **SEL button**.  
*An arrow appears next to the selected option.*
9. Press the **CLR button**.  
*Frequencies and Mode appear in the panel display.*
10. Using the left and right arrow buttons, select **Frequencies**.
11. Press the **SEL button**.  
*The Low Freq scroll box and the High Freq scroll box appear in the panel display.*
12. Using the up and down arrow buttons, select the **low frequency** you desire.
13. Using the left and right arrow buttons, select the **high frequency scroll box**.
14. Using the up and down arrow buttons, select the **high frequency** you desire.

### Equalization

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

Available selections for this menu are:

<i>Default</i>	0 dB (15Hz–20kHz)
<i>Hiss Reduction</i>	0 dB (15Hz–2kHz) -6 dB (2kHz–12.6kHz)
<i>Rumble Reduction</i>	0 dB (50Hz–20kHz)
<i>Noise Reduction</i>	0 dB (50Hz–2kHz) -6 dB (2kHz–8kHz) -80dB (8kHz–12.6kHz)

To **configure a preset frequency response for an input**, do the following:

1. Starting at the Audio Options|Advanced|Filters menu, select **Equalization**.  
*Inputs and Outputs appears in the panel display.*
2. Using the arrow buttons, select **Input**.
3. Press the **SEL button**.  
*Matrix In appears in the panel display.*
4. Select **Matrix In**.
5. Press the **SEL button**.  
*Mode and Presets appear in the panel display.*
6. Using the arrow buttons, select **Mode**.  
*Disabled and Enabled appear in the panel display.*
7. Using the arrow buttons, select **Enabled**.
8. Press the **SEL button**.  
*An arrow appears next to the selected option.*
9. Press the **CLR button**.  
*Mode and Presets appear in the panel display.*
10. Using the arrow buttons, select **Presets**.
11. Press the **SEL button**.  
*Default, Hiss Reduction, Rumble Reduction, and Noise Reduction appear in the panel display.*
12. Using the arrow buttons, select **Default, Hiss Reduction, Rumble Reduction, or Noise Reduction**.
13. Press the **SEL button**.  
*An arrow appears next to preset selected.*



To **configure a preset frequency response for an output**, do the following:

1. Starting at the Audio Options|Advanced|Filters menu, select **Equalization**.  
*Inputs and Outputs appears in the panel display.*
2. Using the arrow buttons, select either **Output**.
3. Press the **SEL button**.  
*Front Spkr and Rear Spkr appear in the panel display.*
4. Using the arrow buttons, select either **Front Spkr** or **Rear Spkr**.
5. Press the **SEL button**.  
*Mode and Presets appear in the panel display.*
6. Using the arrow buttons, select **Mode**.  
*Disabled and Enabled appear in the panel display.*
7. Using the arrow buttons, select **Enabled**.
8. Press the **SEL button**.  
*An arrow appears next to the selected option.*
9. Press the **CLR button**.  
*Mode and Presets appear in the panel display.*
10. Using the arrow buttons, select **Presets**.
11. Press the **SEL button**.  
*Default, Hiss Reduction, and Rumble Reduction appear in the panel display.*
12. Using the arrow buttons, select **Default**, **Hiss Reduction**, **Rumble Reduction**, or **Noise Reduction**.
13. Press the **SEL button**.  
*An arrow appears next to preset selected.*

### **Notch**

The **Notch** menu allows you to add a notch filter to the Matrix In source. This can be useful when the panel data port signal is being heard in the audio line due to cable routing problems.

By default, the notch filter is set to *Disabled*.

Available options for this menu are:

*Disabled*

*Narrow*                      9500hz–9700Hz (200Hz band)

*Default*                    9450hz–9750Hz (300Hz band)

*Wide*                        9400hz–9800Hz (400Hz band)

**Gating**

**Gating** (also called VOX) allows you to minimize or eliminate background noise problems by shutting off an audio source when the audio level drops below a certain threshold.

Gating can be applied to the following:

- Aux 1*
- Aux 2*
- Matrix In*
- OMNEO 2*

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

Nominal inputs are as follows:

- |                  |             |
|------------------|-------------|
| <i>Aux 1-2</i>   | <i>8dBu</i> |
| <i>Matrix In</i> | <i>8dBu</i> |
| <i>OMNEO 1-2</i> | <i>8dBu</i> |

To **configure gating on the program assign panel**, do the following:

- Starting at the Audio Options|Advanced menu, select **Gating**.
- Press the **SEL button**.  
*Aux 1, Aux 2, Matrix In, OMNEO 1, and OMNEO 2 appear in the panel display.*
- Using the left or right arrow buttons, select **Aux 1, Aux 2, Matrix In, OMNEO 1, or OMNEO 2**.
- Press the **SEL button**.  
*The Threshold scroll menu appears.*
- Using the up and down arrow buttons, select the **threshold** you desire.
- Press **BACK** to go to the previous menu item  
OR  
Press and hold **CLR** to exit the menu structure.

**Metering**

**Metering** allows you to monitor an audio source connected to the program assign panel. The energy of the incoming audio is split into five bands and shown on the left side of the panel display when enabled.

The decibels display range is from 28dB below nominal to 8dB above nominal  
The bands are defined as:

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

**NOTE:** Only one channel can be metered at a time.

You can enable metering on:

- Aux1*
- Aux2*
- Matrix In*
- None (default)*
- OMNEO 1*
- OMNEO 2*

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

1. Starting at the Audio Options|Advanced menu, select **Metering**.
2. Press the **SEL button**.  
*Aux 1, Aux 2, Matrix In, None, OMNEO 1, and OMNEO 2 appear in the panel display.*
3. Using the arrow key, select **Aux 1, Aux 2, Matrix In, None, OMNEO 1, or OMNEO 2**.
4. Press the **SEL button**.  
*An arrow appears next to the selected option.*

### Mixing

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

- Front Left Headphone
- Front Right Headphone
- Front Speaker
- Line Out
- Rear Speaker
- Rear Left Headphone
- Rear Right Headphone

---

**IMPORTANT:** If OMNEO is enabled, OMNEO 1 is not available because it is acting as the Matrix. On the other hand, if AIO is enabled, OMNEO 1 and OMNEO 2 are both available as auxiliary channels.

---

By default, the microphone signals are routed to the matrix. The matrix signal is routed to the front speaker and to the left and right channels of the front 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:

*Front Hdset*  
*Front Spkr*  
*Line Out*  
*Rear Hdset*  
*Rear Spkr.*

**TABLE 2.** Resources Table

Destination	Source	Matrix Audio In	Aux 1	Aux 2	OMNEO 1	OMNEO 2
Front Speakers		a	X	X	X	X
Front Headset Left		a	X	X	X	X
Front Headset Right		a	X	X	X	X
Rear Headset Left		a	X	X	X	X
Rear Speaker Left		a	X	X	X	X
Rear Speaker Right		a	X	X	X	X
LINE OUT		X	X	X	X	X

- a. The Matrix input cannot be mixed to speaker or headset outputs using this menu. To mix Matrix In to speakers or headsets, use the Speaker and Headset Spkr menus.

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

- 1. Starting at the Audio Options|Advanced menu, select **Mixing**.
- 2. Press the **SEL button**.  
*Front Hdst, Front Spkr, Line Out, Rear Hdst, and Rear Spkr appear in the panel display.*
- 3. Using the left or right arrow buttons, select a the **destination** to mix to (or the destination to which the sources will be mixed).

**NOTE:** If Front Hdst or Rear Hdst is chosen, an additional step of choosing Both, Left Chan, or Right Chan is required.

- 4. Press the **SEL button**.  
*If Front Spkr or Rear Spkr is selected Aux 1, Aux 2, OMNEO 1, and OMNEO 2 appears in the panel display.*
- 5. Using the left or right arrow buttons, select the **input** to mix to the selected output.
- 6. Press the **SEL button**.  
*An arrow appears next to the selection.*

**NOTE:** Repeat steps 5 and 6 to select additional inputs to mix to the selected output.

**Mix Mode**

The **Mix Mode** menu is used to control whether mixes made to the speakers and headsets are muted when they are not active.

Available options for this menu are:

<i>Aux Mixes Switched (default)</i>	Aux inputs mixed to line out, speakers or headsets are only heard when the panel is in the appropriate headset or speaker mode.
<i>Mixes always active</i>	Aux inputs mixed to speakers or headset are always heard, regardless of whether the panel is in headset or speaker mode.

To **configure Mix Mode**, do the following:

- 1. Starting at the Audio Options|Advanced menu, select **Mix Mode**.
- 2. Press the **SEL button**.  
*Aux Mixes Switched and Mixes Always Active appear in the panel display.*
- 3. Using the left or right arrow buttons, select the **mix mode** you desire.
- 4. Press the **SEL button**.  
*An arrow appears next to the selection.*

## Audio Options 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:

<i>Disappearing Mode</i>	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.
<i>Fixed Offset Mode</i>	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 volume**, do the following:

1. Starting at Audio Options, select **Ganged Vols**.
2. Press the **SEL button**.  
*Disappearing and Fixed Offset appear in the panel display.*
3. Using the left or right arrow buttons, select either **Disappearing** or **Fixed Offset**.
4. Press the **SEL button**.  
*An arrow appears next to the selected option.*

## Audio Options Menu, Headset Speaker

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 speakers.

### Volume Control

Available selections for the Volume Control menu are:

<i>Ganged</i>	The volume controls are tied to each other, only one knob is turned to adjust volume levels. The volume of both front and rear headset speakers are controlled together.
<i>Individual</i>	The volume controls are separate to each other.

**NOTE:** If you gang speakers and/or headset volumes, you may see a split volume bar if the front and rear have different volumes with ganging is enabled. 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 Volume shaft encoder controls the volume for the front and rear channels**, do the following:

1. Starting at the Audio Options|Headset Spkr menu, select **Volume Control**.
2. Press the **SEL button**.  
*Ganged and Individual appear in the panel display.*
3. Using the left or right arrow buttons, select **Ganged** or **Individual**.
4. Press the **SEL button**.  
*An arrow appears next to the selected option.*

**Auto-Transfer**

Available selections for the Auto-transfer menu are:

*Disabled*

*Enabled*

When enabled, the PAP-5032 automatically enters or leaves headset mode when a headset is plugged in or removed.

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

1. Starting at the Audio Options|Headset Spkr menu, select **Front** or **Rear**.
2. Press the **SEL button**.  
*Auto-Transfer and Mode appear in the panel display.*
3. Using the left or right arrow buttons, select **Auto-Transfer**.
4. Press the **SEL button**.  
*Disabled and Enabled appear in the panel display.*
5. Using the left or right arrow buttons, select **Disabled** or **Enabled**.
6. Press the **SEL button**.  
*An arrow appears next to the selected option.*

**Mode**

Available selections for the Mode menu are:

*Always On (d)*

*Disabled*

*Switched*

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

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

1. Starting at the Audio Options|Headset Spkr menu, select **Front** or **Rear**.
2. Press the **SEL button**.  
*Auto-Transfer and Mode appear in the panel display.*
3. Using the left or right arrow buttons, select **Mode**.
4. Press the **SEL button**.  
*Both, Left Chan, and Right Chan appear in the panel display.*
5. Using the left or right arrow buttons, select the **mode** you want.
6. Press the **SEL button**.  
*Always On, Disabled, and Switched appear in the panel display.*
7. Using the left or right arrow buttons, select the **mode**.
8. Press the **SEL button**.  
*An arrow appears next to the selected option.*

## Audio Options Menu, Inputs

The **Inputs** menu is used to enable or disable volume control for audio inputs through the front panel encoder. The PAP-5032 has five Input connectors on the back panel of the unit. By default, all inputs are enabled. This means the inputs are visible as inputs in the Mixing menu and (if mixed somewhere) can be selected for volume control.

If disabled, the inputs are not visible in the mixing menu and cannot be selected for volume control.

**NOTE:** Disabling an input does not undo any of the mixes you had previously established in the Mixing menu; however, it hides access to volume control of this input. This is useful if you want to set the matrix input volume, and then want to disable the volume control so users cannot adjust the Matrix volume.

To **enable or disable an input**, do the following:

1. Starting at the Audio Options|Inputs menu, select **Aux 1**, **Aux 2**, **Matrix In**, or **OMNEO2**.
2. Press the **SEL button**.  
*Disabled and Enabled appear in the panel display.*
3. Using the arrow buttons, select **Enabled** to enable the selected Input.  
OR  
Using the arrow buttons, select **Disabled** to disable the selected Input.

## Audio Options Menu, Max Volume

The **Max Volume** menu is used to set the maximum level, in dB, of the volume the user can configure for a headset or a speaker. This feature prevents incoming audio from being too loud.

The range for this field is *Mute, -48dB to +10 dB for speakers; Mute -48 dB to +24 dB for headsets*.  
The default setting is *10dB*.

To **set the maximum volume for headsets or speakers**, do the following:

1. Starting at the Audio Options|Max Volume menu, select **Headset** or **Speaker**.
2. Press the **SEL button**.  
*Front and Rear appear in the panel display.*
3. Using the left or right arrow buttons, select **Front** or **Rear**.
4. Press the **SEL button**.  
*The Max Volume: scroll box appears in the panel display.*
5. Using the up and down arrow buttons, scroll to the **maximum volume** desired.

## Audio Options Menu, Min Volume

The **Min Volume** menu item is used to set the minimum volume level, in dB, for different sources on the panel. This is the minimum volume level available when using the Main Volume and Aux Volume control knob, located on the front of the panel.

Available sources are: *Headset, Speaker, Aux 1, Aux 2, Matrix In, and OMNEO 2*.

The range for this field is *-48dB to 10dB*, and *Mute (except headsets that have an upper limit of +24 dB)*.  
By default, this field is set to *-6dB* for Matrix In, all other options are set to *Mute*.

To **set the min volume**, do the following,

1. Starting at the Audio Options|Min Volume menu, select the desired **source**.
2. Press the **SEL button**.  
*The Min Volume: scroll box appears in the panel display.*

**NOTE:** When Headset or Speaker is selected, you must designate the front or rear headset or speaker.

3. Using the up and down arrow buttons, scroll to the **minimum volume** desired.

Audio Options Menu, Reference Level

The **Reference Level** menu item is used to set the reference audio level for audio received from the matrix

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

To **set the reference level for audio from the matrix**, do the following:

- 1. Starting at the Audio Options menu, select **Ref Level**.
- 2. Press the **SEL button**.  
*The Reference Level: scroll box appears in the panel display.*
- 3. Using the up and down arrow buttons, scroll to the **desired level**.

Audio Options Menu, Speaker

The **Speaker** menu option is used to configure how the speaker operates. Also from this menu the Main Volume shaft encoder is defined how to control the front and rear speakers.

Available selections are:

- Always On*
- Disabled*
- Switched*                      When set to Switched, the state of the speaker is controlled by the HDST Sel key.

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

- 1. Starting at the Audio Options|Speaker menu, select **Front** or **Rear**.
- 2. Press the **SEL button**.  
*Always On, Disabled and Switched appear in the panel display.*
- 3. Using the left or right arrow buttons, select the **desired mode**.
- 4. Press the **SEL button**.  
*An arrow appears next to the selected option.*

Volume Control

Available selections for the Volume Control menu are:

**NOTE:**        For more information on Ganged Volume configuration, see “Audio Options Menu, Ganged Vols” on page 85.

- Ganged*                      The volume controls are tied to each other, only one knob is turned to adjust volume levels. The volume of both front and rear headset speakers are controlled together.
- Individual*                      The volume controls are independent of each other.

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

- 1. Starting at the Audio Options|Speaker menu, select **Volume Control**.
- 2. Press the **SEL button**.  
*Ganged and Individual appear in the panel display.*
- 3. Using the left or right arrow buttons, select either **Ganged** or **Individual**.
- 4. Press the **SEL button**.  
*An arrow appears next to the selected option.*



---

## *Menu System, Display*

Use this menu to display information about the panel configuration.

The information available for display is as follows:

*MAC Address*

*Panel ID*

*(Firmware) Version*

### **Display Menu, MAC Address**

**MAC Address** displays the MAC Address of the panel.

To **display the MAC Address**, do the following:

1. Starting at the Display menu, select **MAC Address**.
2. Press the **SEL button**.  
*The MAC Address for the panel appears.*

### **Display Menu, Panel ID**

**Panel ID** displays the port number to which the panel is connected.

**NOTE:** When the panel is not scroll enabled, the Panel ID displays only the port number in the panel display. When the panel 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 the **SEL button**.  
*The Panel ID display appears showing the port number and alpha (if applicable) for the panel.*

### **Display Menu, Version**

**Version** displays the firmware version currently running on the panel.

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

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

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

---

## Menu System, Key Assign Menu

The **Key Assign** menu is used to assign intercom key assignments and auto functions to panel keys.

Available options for this menu are:

*Program Source (P2P)*

*IFB*

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

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

### Key Assign Menu, Program Source (P2P)

**PGM Source (P2P)** assigns a program source to a key. Program sources can only be assigned to the Program Source side of the front panel.

To **assign an Program Source to the panel key**, do the following:

1. Starting at the KeyAssign|PGM Source (P2P) menu, select the **Program Source** you want to assign to the panel key.
2. Press the **SEL button**.  
*Tap Key appears in the panel display.*
3. Press down on the **panel key position** where you want the Program Source assignment to appear.  
*The key color changes 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 panel key**, do the following:

1. Starting at the KeyAssign|IFB menu, select the **IFB assignment** you want to assign to the panel key.
2. Press the **SEL button**.  
*Tap Key appears in the panel display.*
3. Press down on the **panel key position** where you want the IFB assignment to appear.  
*The key color changes and the alpha appears on the key.*

---

## *Menu System, Key Options Menu*

The **Key Options Menu** is used to configure many of the panel 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:

*Change PGM Input Gain*

*Change IFB Output Gain*

*Listen Mode*

*Panel Swap*

### **Key Options Menu, Change PGM Input Gain**

The **Change PGM Input Gain** menu is used to enable or disable the ability to make changes to the input gain of ports used as program sources.

### **Key Options Menu, Change IFB Output Gain**

The **Change IFB Output Gain** menu is used to enable or disable the ability to make changes to the output gain of ports assigned as the output port for an IFB

### **Key Options Menu, Listen Mode**

The **Listen Mode** menu is used to select what operating mode the PAP-5032 operates; One or Many.

Available options for this menu are:

*One Mode*

*Only one listen key may be active at a time.*

*Many Mode*

*Many listen keys may be active at the same time.*

### **Key Options Menu, Panel Swap**

**Panel Swap** gives users the ability to quickly and easily change a group of panel assignments on the panel. This is done through the use of virtual expansion panels. 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 actions at once.

---

**IMPORTANT:** The PAP-5032 supports up to six expansion panels on any intercom with PAP-5032 support. The expansion panels can be any mix of physical panels (EKP-4016PB) or virtual panels.

---

Panel swap can be activated by (or triggered by) 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.

### ***Panel Swap Control Options***

There are five ways to activate panel swap:

*Keypad FWD*

*Keypad BACK*



*Keypad UPG1 to UPG 7*

*GPI Inputs Opto 1 and Opto 2*

*GPI Outputs Relay 1 and 2*

### Navigation Mode for Panel Swap

Once you have selected the control trigger, select what panel swap action is performed:

<i>Cycle To</i>	Cycle to the Next or Previous panel.
<i>Switch To</i>	Switch to a specific panel (for example, MAIN, EKP1, EKP2, etc.  The following icon appears briefly when the Main page is showing   The following icon appears when the first virtual EKP is showing  . Subsequent virtual EKPs display their number in the icon.
<i>Toggle To</i>	Toggle between MAIN and a specific virtual EKP.
<i>Unassigned</i>	Used to erase the panel swap action from a trigger or control mechanism.

### Panel Swap Key States

**Key States** define what happens to the key states when a row of keys is not currently visible. There are two possible modes of operation:

<i>Force Off</i>	Listen key states are forced off when the row of keys is not visible.
<i>Retain</i>	Listen key states are retained when the row of keys is not visible. When retain is selected and active listen keys are not visible, the following icon shows in the panel display.



In the menu structure, under Panel Swap, the menu items Control and Key States appear, but are unavailable on the panel until one or more virtual EKPs are enabled.

To **enable virtual panels**, do the following:

1. Starting at the Key Options|Panel Swap menu, select **Virtual EKPs**.
2. Press the **SEL button**.  
*None, 1 EKP, 2 EKPs, etc appear in the panel display.*
3. Using the arrow buttons, select the **maximum number of virtual EKPs to enable**.
4. Press the **SEL button**.  
*An arrow appears next to the selected option.*

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

1. Starting at the Key Options|Panel Swap menu, select **Control**.
2. Press the **SEL button**.  
*GPI Inputs, GPI Outputs, and Keypad appear in the panel display.*
3. Using the arrow buttons, select the **control mechanism** desired.
4. Press the **SEL button**.  
*The appropriate sub-control mechanism appears (see “Panel Swap Control Options” on page 91).*
5. Using the arrow buttons, select the **sub-control mechanism**.
6. Press the **SEL button**.  
*Cycle To, Switch To, Toggle To, and Unassigned appear in the panel display.*
7. Using the arrow buttons, select the **navigation mode** desired.
8. Press the **SEL button**.  
*A list of actions for the panel action appears in the panel display (see “Panel Swap Key States” on page 92).*
9. Using the arrow buttons, select the **action** desired.
10. Press the **SEL button**.  
*An arrow appears next to the selected option.*

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

1. Starting at the Key Options|Panel Swap menu, select **Key States**.
2. Press the **SEL button**.  
*Force Off and Retain appear in the panel display.*
3. Using the arrow buttons, select the **key state** you want to enable (see “Panel Swap Key States” on page 92).
4. Press the **SEL button**.  
*An arrow appears next to the selected option.*

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 the **SEL button**.  
*GPI Inputs, GPI Outputs, and Keypad appear in the panel display.*
3. Using the arrow buttons, select the **control mechanism you want to erase**.
4. Press the **SEL button**.  
*The appropriate sub-control mechanism appears (see “Panel Swap Control Options” on page 91).*
5. Using the arrow buttons, select the **sub-control mechanism you want to erase**.
6. Press the **SEL button**.  
*Cycle To, Switch To, Toggle To, and Unassigned appear in the panel display.*
7. Using the arrow buttons, select **Unassigned**.
8. Press the **SEL button**.  
*An arrow appears next to the selected option.*

## Key Options Menu, Turn Off

The **Turn Off** menu item allows the user to quickly turn off 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 panel using the menu**, do the following:

1. Starting at the Key Options|Turn Off menu, select **All Keys**.
2. Press the **SEL button**.  
*Turn Keys Off? appears in the panel display.*
3. Press the **SEL button**.  
*Keys Turned Off appears in the panel display.*

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

1. Starting at the Key Options|Turn Off menu, select **All Keys**.
2. Press the **SEL button**.  
*Turn Keys Off? appears in the panel display.*
3. Press the **SEL button**.  
*Keys Turned Off appears in the panel display.*
4. On the panel, press and hold a **UPG key** until the message Menu position saved appears in the panel display.  
*Keys Turned Off appears in the panel display once the UPG key is released.*

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**.
2. Press the **SEL button**.  
*Turn Keys Off? appears in the panel display.*
3. On the panel, press and hold a **UPG key** until the message Menu position saved appears in the panel display.  
*Turn Keys Off? reappears in the panel display.*
4. Press the **SEL button**.  
*Keys Turned Off appears in the panel display.*

---

## Menu System, OMNEO Offers

The **OMNEO Offers** menu item is used to configure the panel to communicate with the matrix via an OMNEO or AIO connection. From this menu, you can also configure the OMNEO channels to be used for AUX Inputs.

**NOTE:** Either OMNEO or AIO can be active at a given time. They cannot run simultaneously.

### OMNEO Matrix Connection Configuration

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

1. Starting at the OMNEO Offers|Keypanel menu, select **EPAP**.
2. Press the **SEL button**.  
*A list of available OMNEO offers appear.*
3. Using the arrow buttons, select the **OMNEO offer** you want to use.  
*An arrow appears next to the device.*

### Enable an AIO Connection

To **enable the AIO connection**, do the following:

1. Starting at the OMNEO Offers|Keypanel menu, select **AIO**.
2. Press the **SEL button**.  
*Disable and Enable appear in the panel display.*
3. Using the arrow buttons, select **Enable**.

**NOTE:** Once an AIO connection is enabled, the OMNEO connection displays <none>, but the menu still displays the OMNEO offers available. If an OMNEO offer is selected while the AIO connection is enabled, the AIO connection is disabled.

### OMNEO 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 the **SEL button**.  
*OMNEO 1 and OMNEO 2 appear in the panel display. OMNEO 1 only appears when the EPAP is connected to the Intercom using an AIO connection.*
3. Using the arrow buttons, select **OMNEO 1** or **OMNEO 2**.
4. Press the **SEL button**.  
*A list of available OMNEO offers appears.*
5. Using the arrow buttons, select the **OMNEO offer** you want to configure as an Aux Input.
6. Press the **SEL button**.  
*The OMNEO Aux Input is configured.*

---

## *Menu System, RVON Offers*

The **RVON Offers** menu item is only present when an RVON version of firmware is installed on a panel (for example, EPAP-R menu choice), and/or have an RVON-IO connected to an AIO connector (for example, RVON-IO menu choice). This menu is used to configure the matrix connection when an RVON device and/or RVON-IO is connected on the system.

**NOTE:** For more information about RVON-IO configuration, see the RVON-IO user manual located at [www.rtsintercoms.com](http://www.rtsintercoms.com).

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

1. Starting at the RVON Offers|Keypanel menu, select **EPAP-R**.
2. Using the arrow buttons, select the **desired connection offer**.

---

## *Menu System, Save Config*

The **Save Config** menu option is used to save custom settings made in the Audio Options, Key Options or Service menus. Once you have made modifications via these menus, run Save Cfg to store the custom settings in non-volatile memory. This ensures your custom settings are saved when the panel is powered down. You can run Reset Config (see “Service Menu, Reset Cfg” on page 103), to erase all custom settings.

To **save the configuration**, do the following:

1. On the keypad, press **MENU**.  
*The main menu appears.*
2. Using the arrow buttons, select **Save Config**.
3. Press the **SEL button**.  
*Configuration saved appears in the panel display.*

---

## Menu System, Service

The information available for key assign is as follows:

*Alphas*  
*Display*  
*Key View*  
*Keypad*  
*LCD Backlight*  
*Local GPIO*  
*OMNEO Setup*  
*Reset Cfg*  
*RVON Setup*  
*Scrn Saver*  
*Test Panel*

### Service Menu, Alphas

The **Alphas** menu is used to select the alpha size (length) and type to be displayed for key assignments.

**NOTE:** When a Reset Cfg is performed, the Alpha Size, Poll ID, and Intercom Mode are not reset.

Available options are:

*4 Chars*  
*6 Chars*  
*8 Chars*  
*8 Chars (Unicode)*

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

1. Starting at the Service|Alphas menu, select **4 Chars**, **6 Chars**, **8 Char**, or **8 Chars (Unicode)**.
2. Press the **SEL button**.  
*Cancel and Save and Restart appear in the panel display.*
3. Using the arrow buttons, select **Save and Restart**.
4. Press the **SEL button**.  
*The panel restarts itself with the new alpha size.*
- 5.

### Service Menu, Display

The **Display** menu is used to enable the menu context, show speaker volume and to switch the display to emulate a KP-32 panel.

#### *Menu Context*

The **Menu Context** feature is used to enable or disable the bread-crumb navigation in the upper-left corner of the panel display. Breadcrumb navigation helps provide context in navigating through the panel menu.

#### *Show Volume*

The **Show Volume** feature is used to enable always-on display of the volume bar for Front Headset, Front Speaker, Matrix, Rear Headset, or Rear Speaker, depending on what is selected from the encoder knobs.



### ***KP32 Emulation***

The **KP32 Emulation** is used to switch the display alphas and background to emulate the KP32 with the black background and green lettering.

**IMPORTANT:** Only the display of key and key assignment changes, the menu structure and other display elements do not revert to the KP32 display.

To **activate KP32 Emulation**, do the following:

1. Starting at the Service|Display menu, select **KP32 Emulation**.
2. Press the **SEL button**.  
*Disabled and Enabled appear in the panel display.*
3. Using the arrow buttons, select **Enabled**.
4. Press the **SEL button**.  
*The display panel changes to the KP32 Emulation mode and exits the menu.*

### **Service Menu, Key View**

The **Key View** menu is used to configure the panel keys to show input and output gains.

Available options for this menu are:

<i>Show Gain</i>	When enabled, the input/output gain bar graph for each key is shown below the assignment: input gain of the port for program source assignments and output gain of the port configured as the output port for an IFB assignment.
------------------	--

---

**IMPORTANT:** When the panel is configured for 8 Char or 8 Char (Unicode), none of these options are available.

---

To **configure the Key View**, do the following:

1. Starting at the Service menu, select **Key View**.
2. Press the **SEL button**.  
*Show Gain appears in the panel display.*
3. Using the left and right arrow buttons, select **Show Gain** to show gain on the key display.
4. Press the **SEL button**.  
*Disabled and Enabled appear in the panel display.*
5. Using the left and right arrow buttons, select **Enabled** or **Disabled**.
6. Press the **SEL button**.  
*An arrow appears next the selected option.*

## Service Menu, Keypad

**Keypad** menu is used to configure the default function assigned to the SEL key when not in menu mode and also the keypad backlight behavior.

### Backlight

The **Backlight** menu is used to select the color and brightness of the keypad backlight LEDs at various usage states and to configure the keypad mode.

#### Setup

The **Setup** menu allows you to configure the color and brightness of the keypad backlight LEDs various actions are performed on the panel.

Brightness ranges from 0% to 100%.  
By default, brightness is set to 30% for the Inactive state; and 100% for the Active and Shift states.

Available options for this menu are:

- |             |   |
|-------------|---|
| Inactive    | Set the color and brightness of the keypad backlight LEDs when the keypad is in the inactive state.   |
| Active      | Set the color and brightness of the keypad backlight LEDs when the keypad is in the active state.   |
| Shift State | Set the color and brightness of the keypad backlight LEDs when the keypad is in the SHIFT state.<br>For more information, see “INFO button” on page 43. |

#### Activation

The **Activation** menu is used to configure how and when the keypad backlights. When Activate is selected, the backlight activates when the user presses any keypad key on the panel. Within the Activate menu, you can select whether the first key is processed or swallowed.

Available selections for this field are:

- |                         |   |
|-------------------------|---|
| On Keypress (swallowed) | The first keypad key pushed when the keypad is Inactive is only used to activate the keypad, the actual keypad key push event is not acted upon.<br><br>Note, this action activates the keypad (so the next key is processed), but it may not do anything to the backlight. |
| On Keypress (processed) | The first keypad key pushed when the keypad is Inactive, activates the keypad and is processed.   |
| Always                  | The keypad backlight is always in the active state.   |
| Never                   | The keypad backlight is always in the inactive state.   |

**NOTE:** When the panel menu is not active, the backlight stays lit for five seconds of inactivity before returning to the inactive state. However, when the panel menu is active, the backlight stays lit for one minute before exiting the menu system and returning to the inactive state.

To **configure the keypad Setup option**, do the following:

1. Starting at the Service|Keypad menu, select **Backlight**.
2. Press the **SEL button**.  
*Activation and Setup appear in the panel display.*
3. Using the left and right arrow buttons, select **Setup**.
4. Press the **SEL button**.  
*Inactive, Active, and Shift State appear in the panel display.*
5. Using the left and right arrow buttons, select **Inactive**, **Active**, or **Shift State**.
6. Press the **SEL button**.  
*Blue and White appear in the panel display.*
7. Using the left and right arrow buttons, select the **color** you desire.
8. Press the **SEL button**.  
*The Brightness scroll box appears.*
9. Using the up and down arrow buttons, select the **brightness** you desire.
10. Press the **SEL button**.

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

1. Starting at the Service|Keypad menu, select **Backlight**.
2. Press the **SEL button**.  
*Activation and Setup appear in the panel display.*
3. Using the left and right arrow buttons, select **Activation**.
4. Press the **SEL button**.  
*Activated (default), Always Inactive, and Always Active appear in the panel display.*
5. Using the arrow buttons, select **Always On** to have the keypad backlight always on.  
OR  
Using the arrow buttons, select **Always Inactive** to have the keypad backlight never on.  
OR  
Using the arrow buttons, select **Activated** to have the keypad turn on when the keypad is pressed.

If **Activated** is selected, do the following

- a. Press the **SEL button**.  
*Processed First Press and Swallow First Press appear in the panel display.*
- b. Using the left and right arrow buttons, select **Processed First Press** or **Swallow First Press**.
6. Press the **SEL button**.  
*An arrow appears next the selected option.*

Service Menu, LCD Backlight

The **LCD Backlight** menu option allows you to set the brightness of the panel display of all panels, just the main panel or any expansion panel connected to the main panel.

The range for this field is 0–100%.  
The default is 65%.

To **configure the LCD backlight**, do the following:

- 1. Starting at the Service|Keypad menu, select **LCD Backlight**.
- 2. Press the **SEL button**.  
*All Panels, Main Panel, EKP 1–7 appears in the panel display.*
- 3. Using the left and right arrow buttons, select the **panel display** desired for adjustment.  
If you select All Panels, continue to **step 4**.  
If you select Main Panel or any of the Expansion Panels, do the following:
  - a. Press the **SEL button**.  
*Both, Left and Right appear in the panel display.*
  - b. Using the left and right arrow buttons, select **Both, Left or Right**.  
*Continue to step 4.*
- 4. Press the **SEL button**.  
*The Brightness scroll box appears in the panel display.*
- 5. Using the up and down arrow buttons, select the **brightness** you want to display.

Service Menu, Local GPIO

**Local GPIO** is used to configure GPIO outputs. Outputs can be activated by UPG keys.

To **configure local control of a GPIO Output**, do the following:

- 1. Starting at the Service|Local GPIO menu, select **GPIO Outputs**.
- 2. Press the **SEL button**.  
*Relay 1 and Relay 2 appear in the panel display.*
- 3. Using the arrow buttons, select **Relay 1 or Relay 2**.
- 4. Press the **SEL button**.  
*Not Assigned, UPG 1 through UPG 7 appears in the panel displays.*
- 5. Using the arrow buttons, select the **UPG key** you want to control the GPIO Output.

Service Menu, OMNEO Setup

The **OMNEO Setup** menu option is used to configure the OMNEO device name, enable DHCP, address the OMNEO device for the PAP-5032 and set up the static IP configuration, if DHCP is disabled.

**NOTE:** OMNEO and RVON technologies cannot be used at the same time on the same panel. Use either RVON or OMNEO, but not both.

**IMPORTANT:** If you change the device name on the panel, you must change how other devices are configured, so they can continue to make connection offers to this panel.

**IMPORTANT:** After making any change to the OMNEO Setup, the panel resets to activate the changes. The reset occurs five seconds after exiting the menu system.

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

1. Starting at the Service|OMNEO Setup menu, select **EPAP**.

**NOTE:** EPAP refers to the PAP-5032 using the OMNEO connection; however, if an OEI-2 is also attached to the AIO port, you see both EPAP and OEI-2 options for selection.

2. Press the **SEL button**.  
*Device Name, DHCP, and IP Parameters appear in the panel display.*
3. Using the arrow buttons, select **DHCP**.
4. Press the **SEL button**.  
*Disabled and Enabled appear in the panel display.*
5. Using the arrow buttons, select **Enabled**.
6. Press the **SEL button**.
7. Press the **CLR** button to exit the menu.

To **configure the EPAP device name**, do the following:

1. Starting at the Service|OMNEO Setup menu, select **EPAP**.
2. Press the **SEL button**.  
*Device Name, DHCP, and IP Parameters appear in the panel display.*
3. Using the arrow buttons, select **Device Name**.  
*The name of the EPAP card appears in the panel display with the first character of its name blinking.*
4. Using the up and down arrow buttons or the Aux shaft encoder, select a **new character at the current position**.
5. Using the left and right arrow buttons or the Main shaft encoder, move to the **next or previous character position**.
6. Press **SHIFT** to insert a character at the current position.
7. Press the **SEL button**.  
OR  
Press the **AUX** shaft encoder to move to the next character.

**NOTE:** Press BACK or press the MAIN shaft encoder to cancel editing. A confirmation is required.

8. Press **FWD** or move to the end of the name and Press the SEL button (or the AUX shaft encoder) to save changes.
9. Repeat **steps 7 and 8** until you have modified the device name.
10. Press **FWD**.  
*The message Save Name? appears on the panel display.*
11. Press the **SEL button**.

To **configure the EPAP IP Address**, do the following:

1. Starting at the Service|OMNEO Setup menu, select **EPAP**.
2. Press the **SEL button**.  
*Device Name, DHCP, and IP Parameters appear in the panel display.*
3. Using the arrow buttons, select **DHCP**.
4. Press the **SEL button**.  
*Disabled and Enabled appear in the panel display.*
5. Verify DHCP is **disabled**.

**NOTE:** When making changes to the EPAP IP parameters, DHCP must be disabled before changing the Domain name or IP Address. If DHCP is enabled, you can still view the IP Parameters, but you cannot make changes to them.

6. Press **BACK**.
7. Using the arrow buttons, select **IP Parameters**.

**NOTE:** SEL/FWD moves to the next octet, unless already on the last octet, in which case it save the current IP Address. CLR/BACK moves to the previous octet, unless already on the first octet, in which case it cancels editing of the IP Address.

8. Press the **SEL button**.  
*IP Address, Gateway, Netmask, DNS Server, and Domain appear in the panel display.*
9. Press the **SEL button**.  
*The IP Address appears with the first octet blinking in the panel display.*
10. Using the number pad, enter the **first octet number** in the IP Address.
11. Press the **SEL button**.  
*The focus shifts to the second octet.*
12. Using the number pad, enter the **second octet number** in the IP Address.
13. Press the **SEL button**.  
*The focus shifts to the third octet.*
14. Using the number pad, enter the **third octet number** in the IP Address.
15. Press the **SEL button**.  
*The focus shifts to the last octet.*
16. Using the number pad, enter the **last octet number** in the IP Address.
17. Press the **SEL button**.  
*The EPAP Setup menu options appear in the panel display.*

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

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

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

1. Using the arrow buttons, select **Netmask**.
2. Press the **SEL button**.  
*The Netmask Address appears with the first octet blinking in the panel display.*
3. Using the number pad, enter the **first octet number** in the Netmask Address.
4. Press the **SEL button**.  
*The focus shifts to the second octet.*
5. Using the number pad, enter the **second octet number** in the Netmask Address.
6. Press the **SEL button**.  
*The focus shifts to the third octet.*
7. Using the number pad, enter the **third octet number** in the Netmask Address.
8. Press the **SEL button**.  
*The focus shifts to the last octet.*
9. Using the number pad, enter the **last octet number** in the Netmask Address.
10. Press the **SEL button**.  
*The EPAP Setup menu options appear in the panel display.*

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

1. Using the arrow buttons, select **DNS Server**.
2. Press the **SEL button**.  
*The DNS 1 Server Address appears with the first octet blinking in the panel display.*
3. Using the number pad, enter the **first octet number** in the DNS Address.
4. Press the **SEL button**.  
*The focus shifts to the second octet.*
5. Using the number pad, enter the **second octet number** in the DNS Address.
6. Press the **SEL button**.  
*The focus shifts to the third octet.*
7. Using the number pad, enter the **third octet number** in the DNS Address.
8. Press the **SEL button**.  
*The focus shifts to the last octet.*
9. Using the number pad, enter the **last octet number** in the DNS Address.
10. Press the **SEL button**.  
*The EPAP Setup menu options appear in the panel display.*

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

1. Using the arrow buttons, select **Domain**.
2. Press the **SEL button**.  
*The domain name appears with the first character blinking in the panel display.*
3. Using the up and down arrow buttons or the Aux shaft encoder, select a **new character at the current position**.
4. Using the left and right arrow buttons or the Main shaft encoder, move to the **next or previous character position**.
5. Press **SHIFT** to insert a character at the current position.
6. Press the **SEL button**  
OR  
Press the **AUX** shaft encoder to move to the next character.

**NOTE:** Press **BACK** or press the **MAIN** shaft encoder to cancel editing. A confirmation is required.

7. Press **FWD** or move to the end of the name and Press the **SEL button** (or the **AUX** shaft encoder) to save changes.
8. Repeat **steps 3 to 7** until the domain is named.
9. Once finished, press the **FWD** button.  
*Save Name? appears in the panel display.*
10. Press the **SEL button**.

## Service Menu, Reset Cfg

**Reset Cfg** restores almost all custom settings to the defaults. Reset Cfg does not change the selected alpha size, headset transfer state, or reset the IP configuration.

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

1. Starting at the Service menu, select **Reset Cfg**.  
*Cancel and Do Reset appear in the panel display.*
2. Using the arrow buttons, select **Do Reset**.
3. Press the **SEL button**.  
*Configuration Reset appears in the panel display.*

## Service Menu, RVON Setup

The **RVON Setup** menu option is used to configure the IP Address, Netmask Address, and Gateway Address for the panel when the RVON firmware version is installed.

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**IMPORTANT:** OMNEO and RVON technologies cannot be used at the same time on the same panel. Use either RVON or OMNEO, but not both.

---

To **configure the IP Address for the RVON-I/O**, do the following:

1. Starting at the Service|RVON Setup menu, select **EPAP-R**.
2. Press the **SEL button**.  
*IP Address, Netmask, and Gateway appear in the panel display.*
3. Using the arrow buttons, select **IP Address**.
4. Press the **SEL button**.  
*The IP Address appears with the first octet blinking in the display window.*
5. Using the number pad, enter the **first octet number** in the IP Address.
6. Press the **SEL button**.  
*The focus shifts to the second octet.*
7. Using the number pad, enter the **second octet number** in the IP Address.
8. Press the **SEL button**.  
*The focus shifts to the third octet.*
9. Using the number pad, enter the **third octet number** in the IP Address.
10. Press the **SEL button**.  
*The focus shifts to the last octet.*
11. Using the number pad, enter the **last octet number** in the IP Address.
12. Press the **SEL button**.  
*The RVON Setup menu options appear in the panel display.*

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

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

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

1. Using the arrow buttons, select **Gateway**.
2. Press the **SEL button**.  
*The Gateway Address appears with the first octet blinking in the panel display.*
3. Using the number pad, enter the **first octet number** in the Gateway Address.
4. Press the **SEL button**.  
*The focus shifts to the second octet.*



5. Using the number pad, enter the **second octet number** in the Gateway Address.
6. Press the **SEL button**.  
*The focus shifts to the third octet.*
7. Using the number pad, enter the **third octet number** in the Gateway Address.
8. Press the **SEL button**.  
*The focus shifts to the last octet.*
9. Using the number pad, enter the **last octet number** in the Gateway Address.
10. Press the **SEL button**.  
*The RVON Setup menu options appear in the panel display.*

## Service Menu, Scrn Saver

**Scrn Saver** allows the user to configure the way the screen saver feature operates.

Available selections for this menu are:

<i>Activate</i>	Allows the user to activate the screen saver immediately (used to test current display settings).
<i>Delay</i>	Allows the user to set the delay for Display Dim (for example, when the display will dim) and to set the delay for Activation (for example, when the screen saver becomes active). Both features can be set from 30 minutes, up to 12 hours, or disabled.
<i>Display Dim</i>	Allows the user to set the brightness of the panel display from 0-100%. This setting is a percentage of the current LCD brightness. For example, if you configured your backlight for 60%, then in this menu, 100% is equal to 60% and 0% is equal to 35%.
<i>Mode</i>	Can be set to Bitmap, Display Off (sleep mode), or Text.

The default setting for this option is:

<i>Delay</i>	<i>One hour for both display dim and screen-saver activation</i>
<i>Display Dim</i>	<i>25%</i>
<i>Mode</i>	<i>Text</i>

**NOTE:** Activating any lever key, keypad button, or shaft encoder deactivates the screen-saver.

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

1. Starting at the Service|Scrn Saver menu, select **Activate**.
2. Press the **SEL button**.  
*The screen saver is activated on the panel display.*

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

1. Starting at the Service|Scrn Saver menu, select **Delay**.
2. Press the **SEL button**.  
*Display Dim and Activation appear in panel display.*
3. Using the left and right arrow buttons, select **Display Dim**.
4. Press the **SEL button**.  
*The Delay Time: scroll box appears in the panel display.*
5. Using the arrow buttons, select the **amount of time** you want to expire before the display dims.
6. Press **BACK**.  
*Display Dim and Activation appear in panel display.*
7. Using the left and right arrow buttons, select **Activation**.
8. Press the **SEL button**.  
*The Delay Time: scroll box appears in the panel display.*
9. Using the arrow buttons, select the **amount of time** you want to expire before the screen saver becomes active.

To **set the brightness of the display**, do the following:

1. Starting at the Service|Scrn Saver menu, select **Display Dim**.
2. Press the **SEL button**.  
*The Brightness scroll box appears in the panel display.*
3. Using the up and down arrow buttons, scroll to the **display brightness** you desire.




To **set the screen saver mode (type)**, do the following:

1. Starting at the Service|Scrn Saver menu, select **Mode**.
2. Press the **SEL button**.  
*Bitmap, Display Off and Text appear in the panel display.*
3. Using the arrow buttons, select **Bitmap** to have a bitmap image display when the screen saver activates.  
OR  
Using the arrow buttons, select **Display Off** to put the display into sleep mode when the screen saver activates.  
OR  
Using the arrow buttons, select **Text** to have a text message display when the screen saver activates.
4. Press the **SEL button**.  
*If Bitmap or Text is selected, the options Bounce or Scroll appear.*
5. Using the arrow buttons, select **Bounce** to have the bitmap or text bounce across the display.  
OR  
Using the arrow buttons, select **Scroll** to have the bitmap or text scroll across the display.

## Service Menu, Test Panel

**Test Panel** allows the user to check the operation of all keys and displays on the panel.

**TABLE 3.** Test Panel Key Descriptions

Display	Action
	All alpha numeric displays show a % symbol when in Test Panel mode.
	Press down on any key.
	Press the SHIFT + panel key
<AUX>	Single tap the Aux Volume encoder knob.
<-AUX>	Rotate the Aux Volume encoder knob counterclockwise.
<+AUX>	Rotate the Aux Volume encoder knob clockwise.
<AUX-DBL>	Double tap the Aux Volume encoder knob.
<AUX-HELD>	Press and hold the Aux Volume encoder knob.
<MAIN>	Single tap the Main Volume encoder knob.
<-MAIN>	Rotate the Main Volume encoder knob counterclockwise.
<+MAIN>	Rotate the Main Volume encoder knob clockwise.
<MAIN-DBL>	Double tap the Main Volume encoder knob.
<MAIN-HELD>	Press and hold the Main Volume encoder knob.
<-LSTN>	Press left on the LSTN/HDST SEL key.
<+LSTN>	Press right on the LSTN/HDST SEL key.
<LSTN>	Press up on the LSTN/HDST SEL key.
<HDST>	Press down on the LSTN/HDST SEL key.
<-SCRL>	Press left on the CLR/SCRL key.
<+SCRL>	Press right on the CLR/SCRL key.
<CLR>	Press up on the CLR/SCRL key.
<SCRL>	Press down on the CLR/SCRL 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 test panel mode, do the following:

1. On the keypad, press **MENU**.  
*The Information menu appears in the panel display.*
2. Using the arrow buttons, select **Service**.
3. Press the **SEL button**.  
*The Service submenu appears in the panel display.*
4. Using the arrow buttons, select **Test Panel**.
5. Press the **SEL button**.  
*The Test Panel display appears.*
6. Using Table 3 on page 107, test the **panel keys**.
7. Press the **CLR button** to exit Test Panel.



# *Keypad Quick Reference*

---

## *Keypad Sequence Introduction*

Keypad sequences are a series of keypad strokes made on the panel, which in turn displays specific information (such as panel ID, etc.). Panel sequences are shortcuts via the keypad.

The PAP-5032 allows you to lock the entire menu or only the service menu. This is implemented through AZedit (System|Miscellaneous|Keypanel Menu Password). For more information, see the AZedit user manual (p/n F01U239453).

Keypad Sequences



Keypad	Description
MENU	Open the main menu.
FWD	Move one selection forward through highlighted menu option.
BACK	Move one selection backwards through highlighted menu option.
UPG1	
UPG2	
PGM	Displays a scroll list of available program source assignments.
Arrow Up	Scroll upward through scroll list or available key assignments one at a time.
IFB	Displays a scroll list of IFB assignments.
Arrow Left	Move backwards through menu options or available key assignments one at a time.
MENU (middle of the keypad)	Open the main menu.
Arrow Right	Move forward through menu options or available key assignments one at a time.
COPY	Copy the selected item from the scroll list to a key.
Down Arrow	Scroll downward through scroll list or available key assignments one at a time
PAGE	Access setup pages
CLR	Acts as a BACK button in menu mode, or by holding it down, exits the menu structure
SHIFT	Access secondary keypad actions
SEL	Select options highlighted in a menu
SHIFT+2 LVOL	Adjusts the listen gain
SHIFT+4	Move backwards through menu options or available key assignments a page at a time
SHIFT+INFO	Open the INFO menu
SHIFT+6	Move forward through menu options or available key assignments a page at a time
SHIFT+9 LSTN	Opens the Toggle Listen Key States function

## Keypad Sequences

**IMPORTANT:** When **SHIFT + <keypad key>** appears in this manual, the user is instructed to press the SHIFT key followed by the next keypad key. The SHIFT key and the keypad key should not be pressed simultaneously.  
If the user is instructed to press two keys simultaneously, this manual uses the phrase press and hold.

7,<key>	Copy the selected item from the scroll list to a key.
0,0,0,8,1	Show panel ID.
0,0,0,8,0	Enter test mode.
0,0,0,8,8	Show setup pages for both PGM Source and IFB.
9, <page>, SEL <key>	Select setup page for row of keys. Pages range from 0 through 32.





# Panel Menu Quick Reference

## Audio Options

Advanced:									
Filters									
Bandpass									
Inputs									
			Aux 1						
			Aux 2						
			OMNEO 1						
			OMNEO 2						
				Frequencies					
					Low Freq	0 Hz (d)			
						15.6Hz			
						31.5Hz			
						50Hz			
					High Freq	22kHz (d)			
						16kHz			
						8KHz			
						4KHz			
				Mode	Disabled (d)				
					Enabled				
Outputs									
			Front Hdst						
			Rear Hdst						
				Both					
				Left Chan					
				Right Chan					
					Frequencies				
						Low Freq	0 Hz (d)		
							15.6Hz		
							31.5Hz		
							50Hz		
						High Freq	22kHz (d)		
							16kHz		
							8KHz		
							4KHz		
					Mode	Disabled (d)			
						Enabled			
Equalization									
Inputs									
				Matrix In					
					Modes	Disabled (d)			
						Enabled			

					Presets	Default (d) Hiss Reduction Noise Reduction Rumble Reduction
				Outputs		
					Front Spkr Rear Spkr	
					Modes	Disabled (d) Enabled
					Presets	Default (d) Hiss Reduction Noise Reduction Rumble Reduction
				Notch		
				Notch Filter		
					Disabled (d) Narrow Default Wide	
				Gating		
					Aux 1 Aux 2 Matrix In OMNEO 1 OMNEO 2	
					Threshold	
						Disabled (d) -17dB to 18dB
				Metering		
					Aux 1 Aux 2 Matrix In None (d) OMNEO 1 OMNEO 2	
				Mixing		
					Front Hdst Rear Hdst	
					Both Left Chan Right Chan	Aux 1 Aux 2 Front Hdst OMNEO 1 OMNEO 2 Rear Hdst
					Front Spkr Rear Spkr	
						Aux 1 Aux 2 Front Hdst Matrix In OMNEO 1 OMNEO 2 Rear Hdst
					Line Out	
						Aux 1 Aux 2 Matrix In OMNEO 1 OMNEO 2
				Mix Mode		
					Aux Mixes Switched (d)	
					Mixes Always Active	
<b>Ganged Vols:</b>						
					Disappearing (d) Fixed Offset	

Headset Spkr:					
			Front	Auto-Transfer	Disabled Enabled (d)
				Mode	Both, Left Chan Right Chan Always On (d) Disabled Switched
			Rear	Auto-Transfer	Disabled Enabled (d)
				Mode	Both, Left Chan Right Chan Always On (d) Disabled Switched
			Volume Control		
				Ganged Individual (d)	
Inputs:					
			Aux 1		
				Disabled Enabled (d)	
			Aux 2		
				Disabled Enabled (d) Ganged	
			Matrix In		
				Disabled Enabled (d)	
			OMNEO		
				Disabled Enabled (d)	
Line Out:					
				Disabled Enabled (d)	
Max Volume:					
			Headset	Front Rear	Max Volume: -48dB to +24dB (d), Mute
			Speaker	Front Rear	Max Volume: -48dB to +10dB (d), Mute
Min Volume:					
			Headset Speaker		
				Front Rear	Min Volume: -6dB (default for Matrix IN) Mute (default for all others) -48dB – 10dB
			Aux 1 Aux 2 Matrix In OMNEO 1 OMNEO 2		Min Volume: -6dB (default for Matrix IN) Mute (default for all others) -48dB – 10dB
Reference Level:					
			Reference Level: +8 dB to 0 dB (d)		
Speaker:					
			Front	Always On Disabled Switched (d)	
			Rear	Always On Disabled (d) Switched	
			Volume Control	Ganged Individual (d)	

*Display Menu*

MAC Address	
	MAC Address - Displays the MAC Address for the panel.
Panel ID	
	<Panel ID> - Shows the port number and alpha for this panel
Version	
	Version X.X.X - shows the panel firmware version

*Key Assign Menu*

Program Source (P2P)		
	<XXX> - Shows a list of all program sources available	
		Tap Key (left display panel)
IFB		
	<XXX> - Shows a list of all IFB available	
		Tap Key (right display panel)

## Key Options Menu

Change PGM Input Gain				
	Disable			
	Enable			
Change IFB Output Gain				
	Disable			
	Enable			
Listen Mode				
	One Mode			
	Many Mode			
Panel Swap				
	Control			
	GPI Inputs			
		Opto 1		
		Opto 2		
			Cycle To	Next Previous
			Switch To	MAIN EKP 1 - EKP 6
			Toggle To	EKP 1 - EKP 6
			Unassigned (d)	
	GPI Outputs			
		Relay 1		
		Relay 2		
			Cycle To	Next Previous
			Switch To	MAIN EKP 1 - EKP 6
			Toggle To	EKP 1 - EKP 6
			Unassigned (d)	
	Keypad			
		BACK		
		FWD		
		UPG 1 and UPG 2		
			Cycle To	Next Previous
			Switch To	MAIN EKP 1 - EKP 6
			Toggle To	EKP 1 - EKP 6
			Unassigned	
Key States				
		Force Off (d)		
		Retain		
Virtual EKPS				
		None		
		1 EKP through 6 EKPs		

*OMNEO Offers Menu*

Keypanel		
	EPAP	
		<Port #> - Shows a list of all OMNEO offers
	AIO - If an RVON-IO or an OEI-2 is connected, it shows that device instead	
		Disabled
		Enabled (d)
Aux Input		
	OMNEO 1	
		<Port #> - Shows a list of all OMNEO offers
	OMNEO 2	
		<Port #> - Shows a list of all OMNEO offers
	OMNEO 8	
		<Port #> - Shows a list of all OMNEO offers

*Save Config Menu*

Configuration Saved
---------------------

## Service Menu

Alphas				
	4 Chars (d)			
	6 Chars			
	8 Chars			
	8 Chars (Unicode)			
Display				
	Menu Context			
		Disabled		
		Enabled (d)		
	Show Volume			
		Disabled (d)		
		Enabled		
	KP32 Emulation			
		Disabled (d)		
		Enabled		
Key View				
	Show Gain			
		Disabled (d)		
		Enabled		
Keypad				
	Backlight			
		Activation		
			Activate	
				On Keypress (swallowed) (d)
				On Keypress (processed)
				Always
				Never
		Setup		
			Inactive	
				Brightness: ##%
				30% (d)
				Color:
				Blue (d)
				White
			Active	
				Brightness:##%
				100% (d)
				Color:
				Blue (d)
				White
			Shift State	
				Brightness: ##%
				100% (d)
				Color:
				Blue
				White (d)
LCD Backlight				
	All Panels			
		Brightness:		
		65% (d)		
		35% – 100%		
	Main Panel			
		Both, Left, Right		
		Brightness:		
		65% (d)		
		35% – 100%		

	EKP 1 – 7	
	Both, Left, Right	
	Brightness:	
	65% (d)	
	35% – 100%	
Local GPIO		
	GPIO Outputs	
	Relay 1	
	Relay 2	
	Not Assigned (d)	
	UPG1 - UPG7	
OMNEO Setup		
	EPAP	
	OEI-2 (if attached)	
	Device Name	
	<displays device name and allows editing>	
	DHCP	
	Disabled (d)	
	Enabled	
	IP Parameters	
	IP Address <displays IP Address and allows editing>	
	Netmask <displays Netmask and allows editing>	
	Gateway <displays Gateway and allows editing>	
	DNS Server 1 <displays DNS Server and allows editing>	
	Domain <displays Domain Name and allows editing>	
Reset Cfg		
	Cancel	
	Do Reset	
	Configuration Reset	
Scrn Saver		
	Activate	
	Delay	
	Display Dim	
	Delay	1 hour (d)
	Time:	(30 min, 1 to 12 hours, and Disabled)
	Activation	
	Delay	1 hour (d)
	Time:	(30 min, 1 to 12 hours, and Disabled)
	Display Dim	
	Brightness: 25% (d) (0% – 100%)	
	Mode	
	Bitmap	
	Bounce	
	Scroll (d)	
	Display Off	
	Text (d)	
	Bounce	
	Scroll (d)	
Test Panel		



# *EKP-4016PB*

---

## *Introduction*

Connecting directly to the PAP-5032 panel, the EKP-4016PB (Expansion Panel Color Display) provides an additional 16 keys per expansion panel to your intercom application.

Refer to Figure 16, “Expansion Panel Cabling,” on page 123, for information on how to connect up to six additional expansion panels with a PAP-5032.

---

## *Specifications*

### LCD Display

#### Active Area

120.10mm (wide) x 18.77mm (high)

#### Dot Resolution

576 x 90 dots

#### Color Resolution

16-bit (64K) RGB color

#### View Angle

80 degrees (typical; all directions)

### Connector

EXP IN RJ-45

EXP OUT RJ-45

### General

#### EKP-4016PB

#### Storage Temperature

-40°C to 70°C (-40°F to 158°F)

#### Operating Temperature

0°C to 55°C (32°F to 131°F)

#### Dimensions

17.39”L x 1.72”H x 3.92”D (441.82mm x 43.8mm x 99.5mm)

#### Weight

2.91lb (1.32kg)

#### Power Consumption

Nominal – 6 Watts

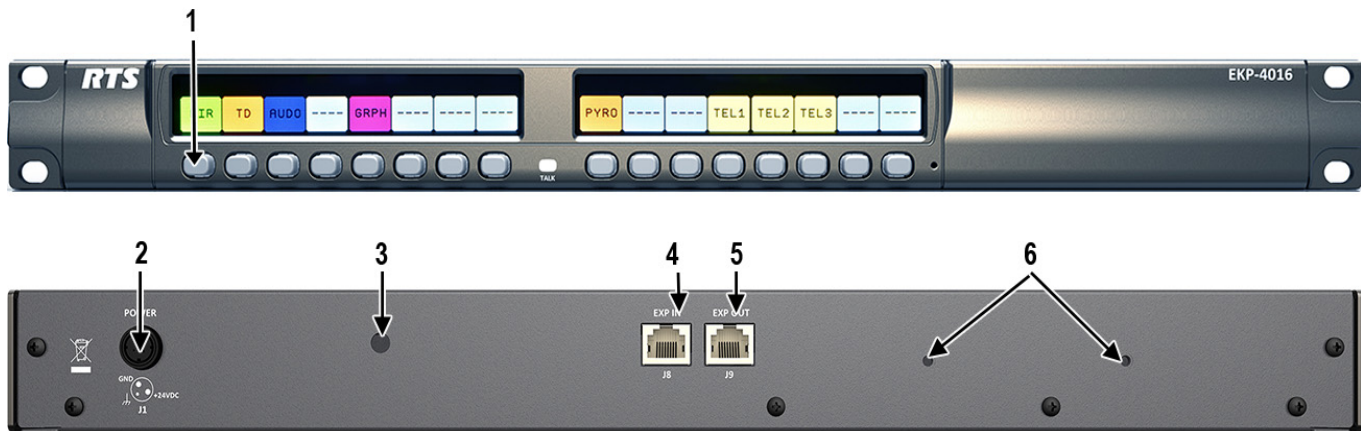
Maximum – 7 Watts

Maximum Volt Amp - 48VA

#### Input Power

100~240VAC, 50~60Hz

## *EKP-4016PB Expansion Panel Reference View*



**FIGURE 15.** EKP-4016PB Expansion Panel Reference View – Front and Rear

1. Expansion Keys
2. Power
3. Power Supply Bracket Mounting Holes
4. RJ-45 Expansion IN
5. RJ-45 Expansion OUT
6. Power Supply Cable Tie Mounting Hole

Expansion Panel Cabling Reference

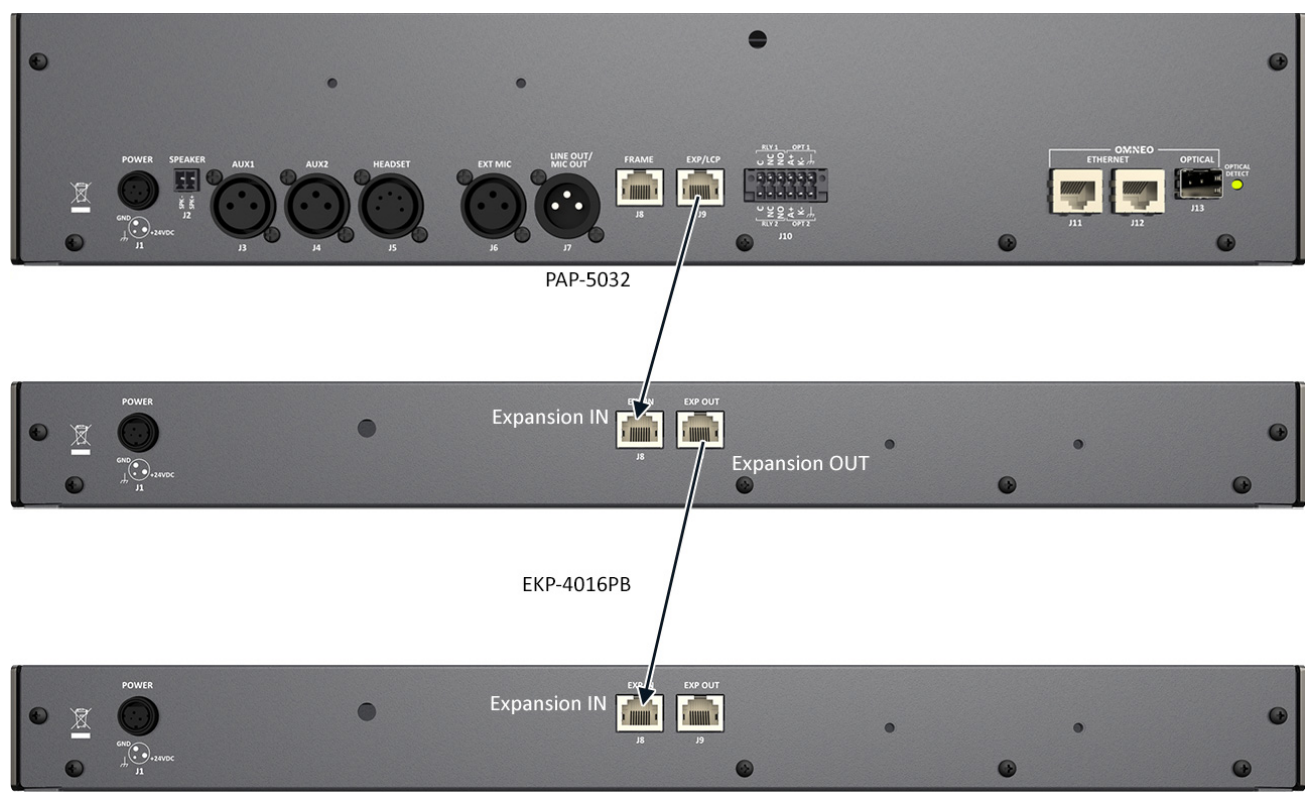


FIGURE 16. Expansion Panel Cabling

RJ-45 EXP IN (expansion)	
Pin	Assignment
1	No Connect
2	NC
3	NC
4	NC
5	NC
6	NC
7	RS485 +
8	RS485 -

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



# *Unicode Support*

---

## *AZedit and Unicode Support*

Minimum firmware revision requirements for Unicode support are:

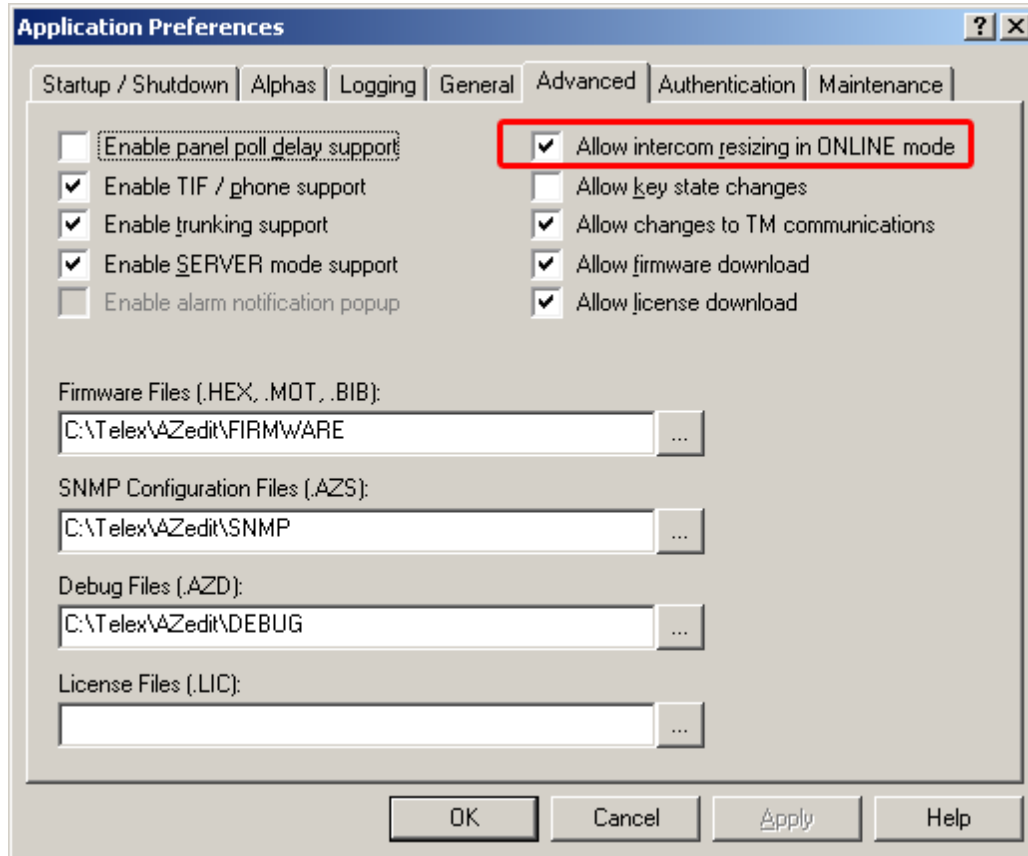
- All controllers (MCII-e, ODIN) and I/O cards (AIO-8/16, OMI and RVON-8/16) that support the PAP-5032 also support Unicode. Neither Cronus nor Zeus support PAP-5032.
- KP 32 CLD v1.3.0 or later
- KP 12 CLD v1.1.0
- RP-1000 v2.0.0
- KP12/4U v1A.0.26 (Cyrillic character set only)
- KP-5032/4016 v1.1.1
- PAP-5032 v1.0.0

To **configure the panel for Unicode operation**, do the following:

1. On the panel, select **Service|Alphas|8 Chars (Unicode)|Save and Restart**.

**NOTE:** If using the panel with Japanese firmware, you must also configure the correct Intercom Mode.

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.*

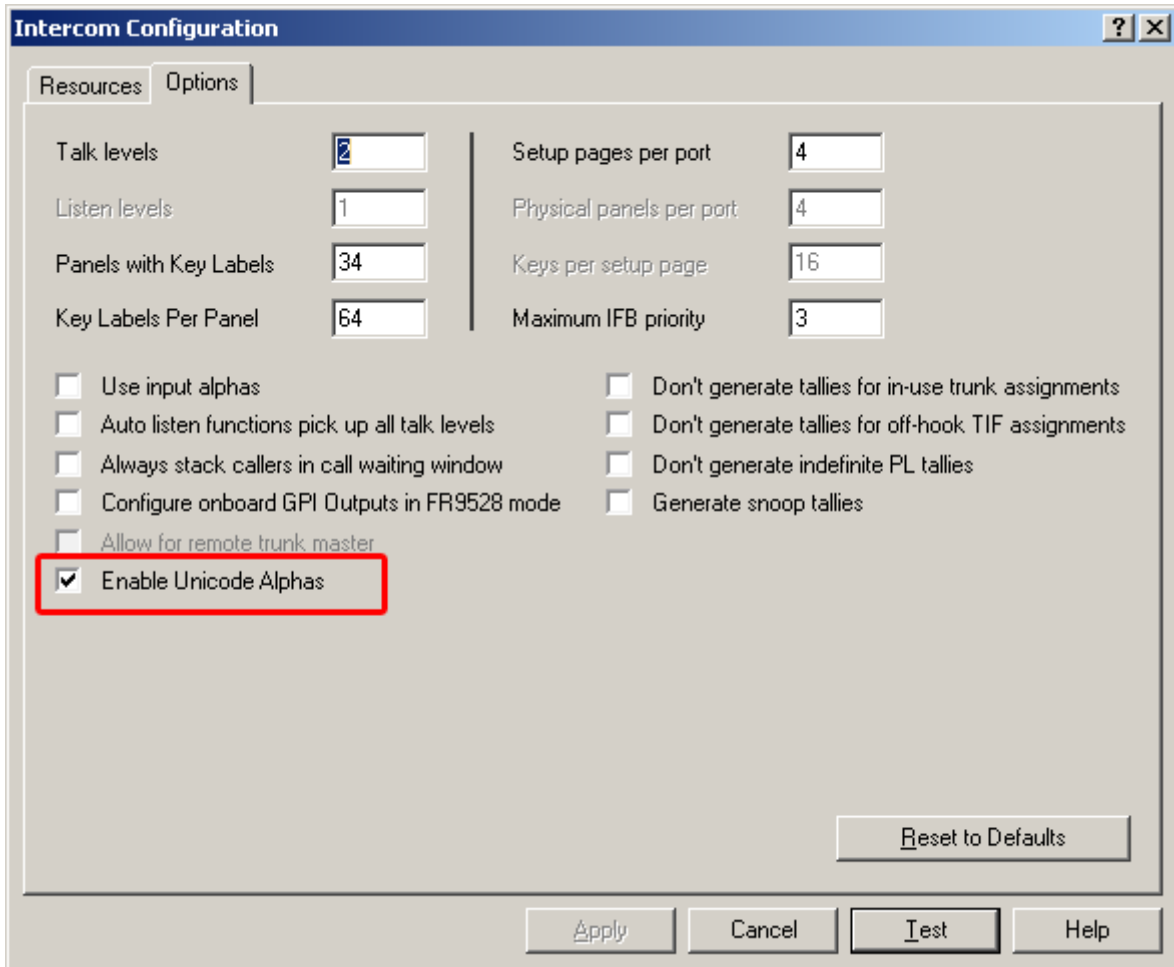
---

**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 image shows the 'Intercom Configuration' dialog box with the 'Options' tab selected. The dialog has a title bar with a question mark and a close button. Below the title bar are two tabs: 'Resources' and 'Options'. The 'Options' tab contains several settings:

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

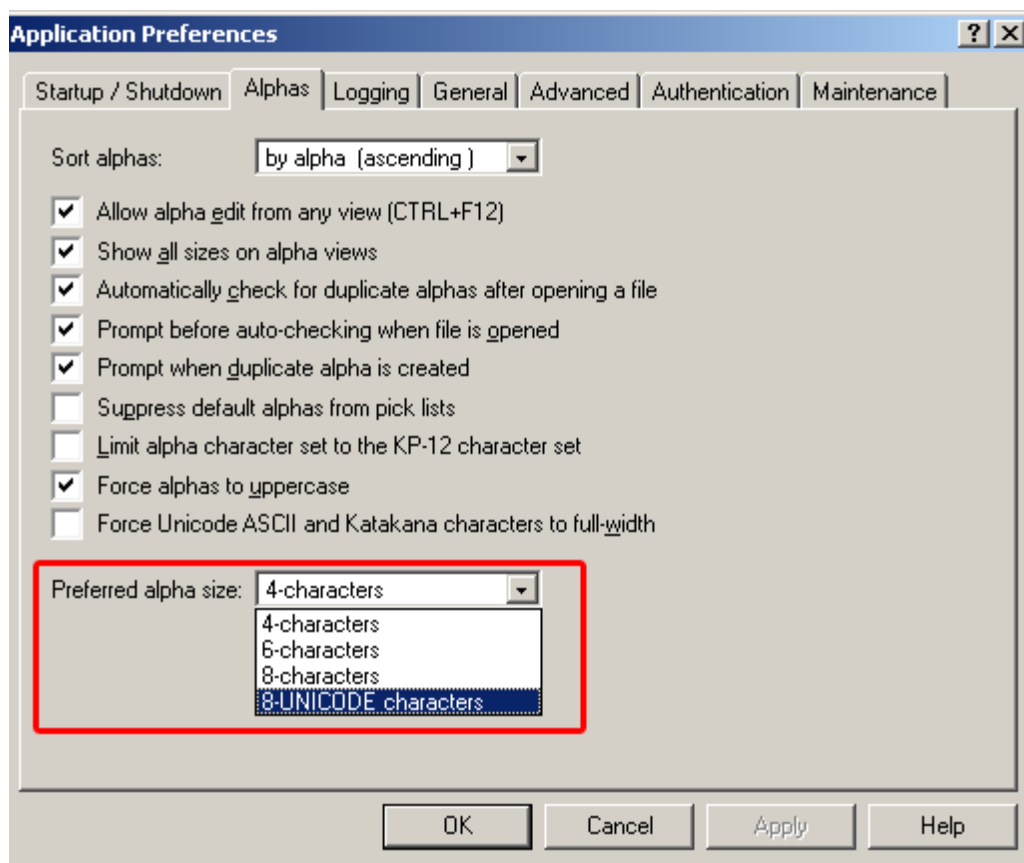
Below the numeric settings are two columns of checkboxes:

Option	State
<input type="checkbox"/> Use input alphas	Unchecked
<input type="checkbox"/> Auto listen functions pick up all talk levels	Unchecked
<input type="checkbox"/> Always stack callers in call waiting window	Unchecked
<input type="checkbox"/> Configure onboard GPI Outputs in FR9528 mode	Unchecked
<input type="checkbox"/> Allow for remote trunk master	Unchecked
<input checked="" type="checkbox"/> Enable Unicode Alphas	Checked
<input type="checkbox"/> Don't generate tallies for in-use trunk assignments	Unchecked
<input type="checkbox"/> Don't generate tallies for off-hook TIF assignments	Unchecked
<input type="checkbox"/> Don't generate indefinite PL tallies	Unchecked
<input type="checkbox"/> Generate snoop tallies	Unchecked

At the bottom right of the dialog is a 'Reset to Defaults' button. At the very bottom are four buttons: 'Apply', 'Cancel', 'Test', and '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.*

To restore the system configuration, do the following:

1. From the Online menu, select **Send File**.
2. Navigate to the **system configuration file (.adm)** you want to restore.
3. Click **OK**.



# Power Supply Mounting Options

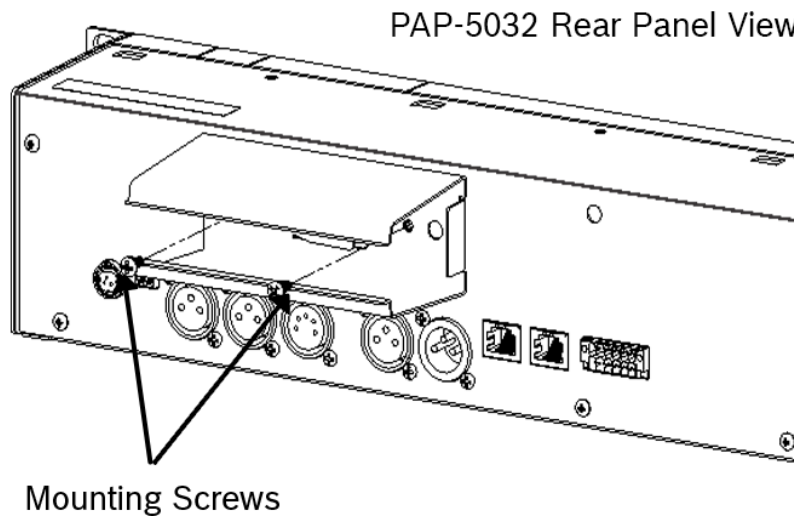
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## Power Supply Mounting Bracket Instructions

### Mounting the Power Supply to PAP-5032 Unit

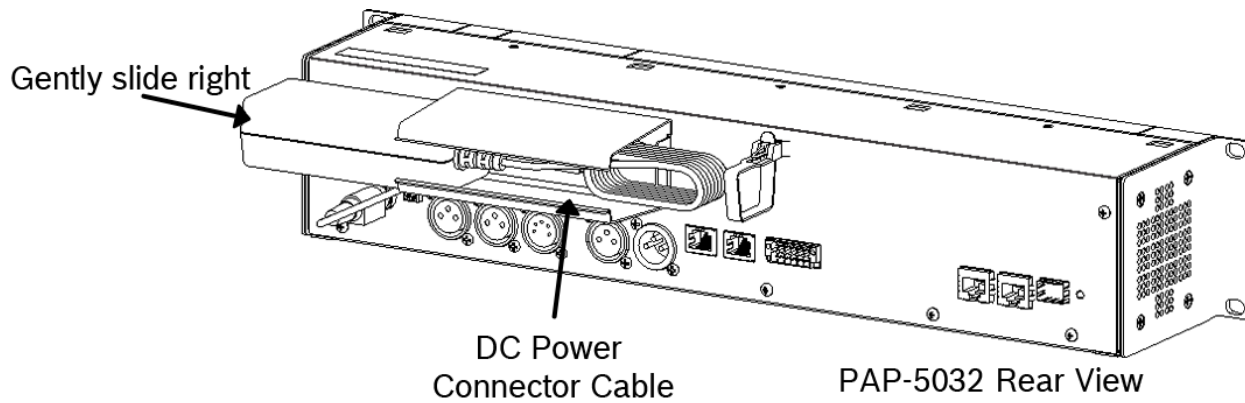
To **mount the power supply mounting bracket** to a **PAP-5032**, do the following:

1. Align the **power supply mounting bracket screw holes** with the **appropriate mounting holes on the rear panel** of the PAP-5032 unit.
2. Using a screwdriver, attach the **power supply mounting bracket** with the two supplied screws.

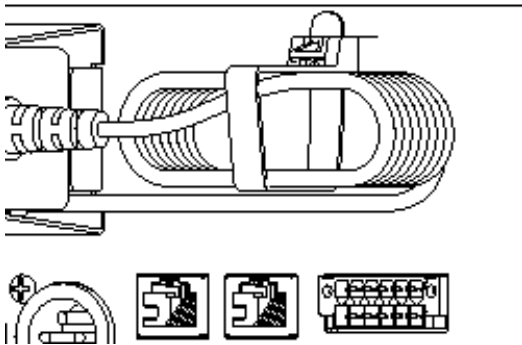


3. Attach the **power supply cable tie clip** to the predefined clip mounting hole on the rear of the panel unit.
4. Attach the **DC power connector** to the unit.
5. Carefully thread the **power cable** through the bracket, in order to utilize the power supply cable tie.

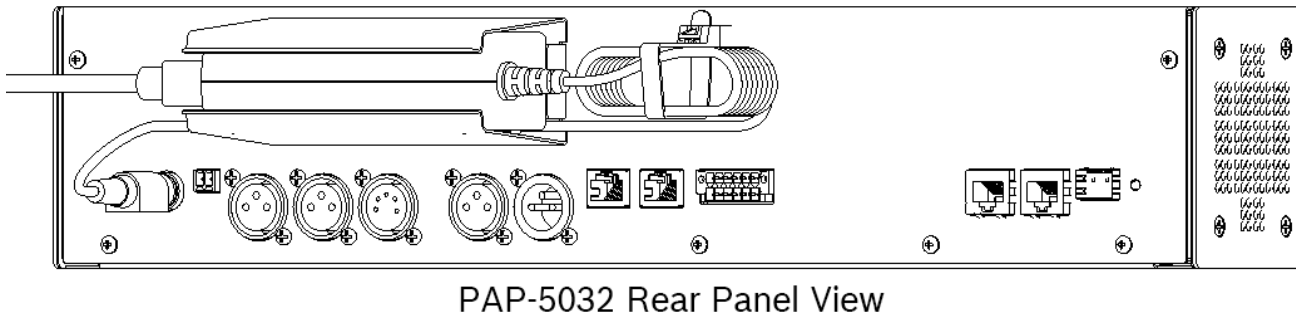
- From the left-hand side of the mounting bracket, carefully slide the **power supply** into the bracket.



- Carefully coil the **power supply cord** and insert it into the cord clip.



- Attach the **AC power connector** to the power outlet on the power supply.

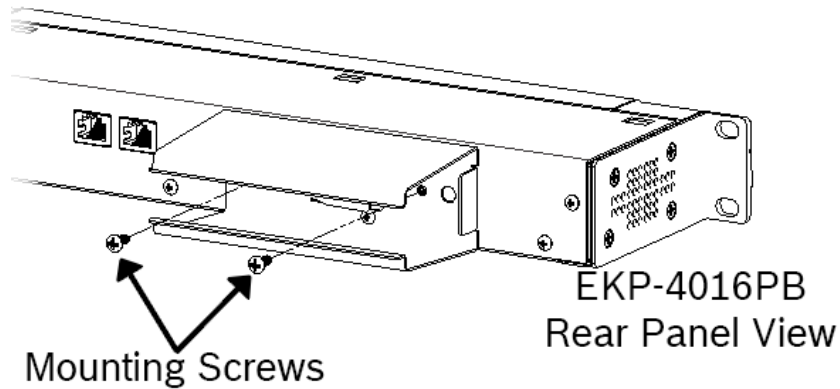


- Plug the **power cord** into an electrical outlet.

## Mounting the Power Supply to EKP-4016/4016PB Unit

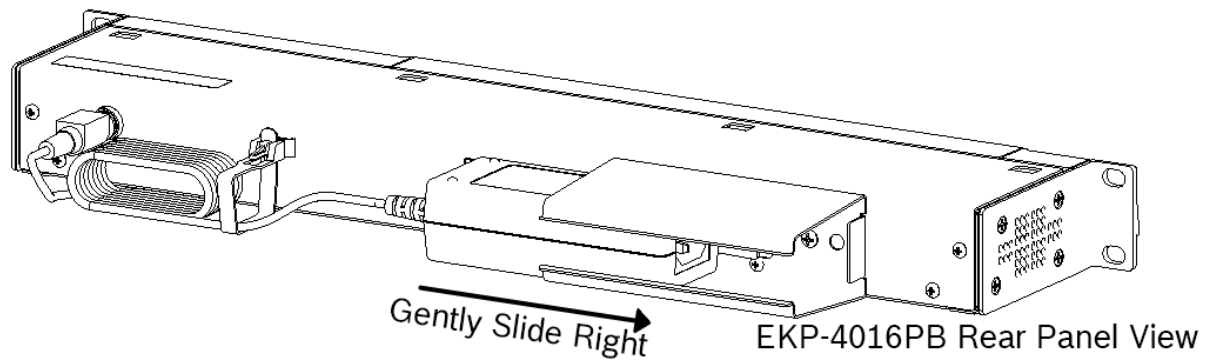
To **mount the power supply mounting bracket to an EKP-4016**, do the following:

1. Align the **power supply mounting bracket screw holes with the appropriate mounting holes on the rear panel** of the EKP-4016 unit.
2. Using a screwdriver, attach the **power supply mounting bracket** with the two supplied screws.



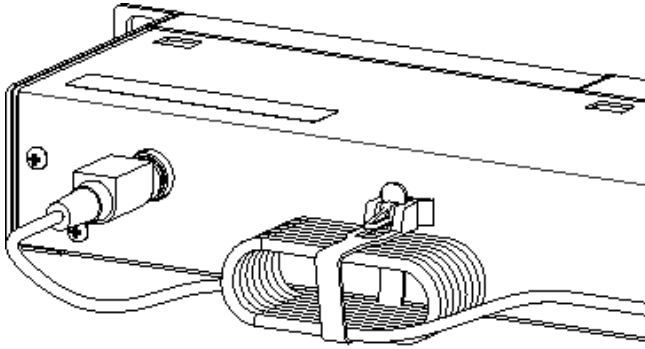
3. Attach the **power supply cable tie clip** to the predefined clip mounting hole on the rear of the panel unit.
4. From the left-hand side of the mounting bracket, carefully slide the **power supply** into the bracket.

**NOTE:** The Frame and EXP OUT connections cannot be populated until the power supply mounting bracket is fully installed.



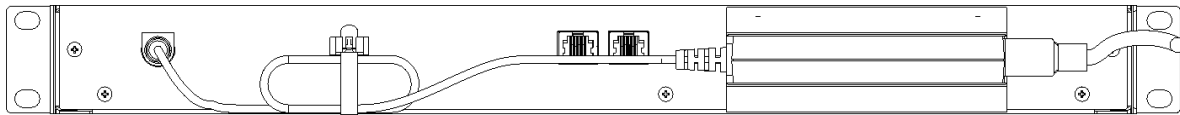
5. Attach the **DC power connector** to the unit.

6. Carefully coil the **power supply cord** and insert it into the cord clip.



## EKP-4016PB Rear Panel View

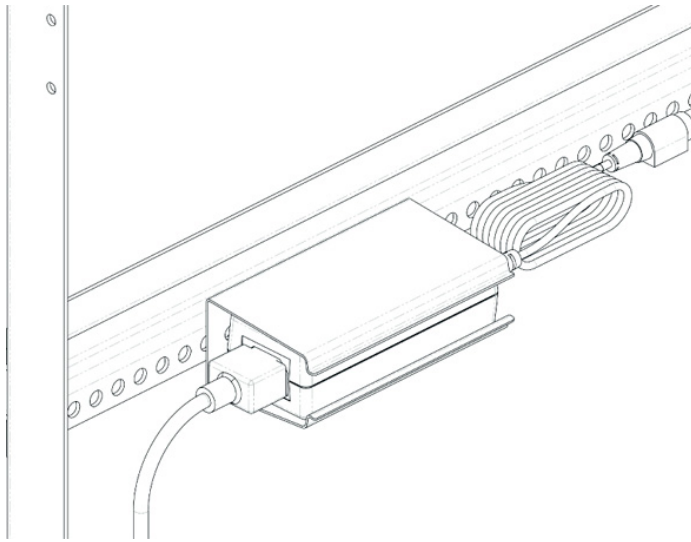
7. Attach the **AC power connector** to the power outlet on the power supply.



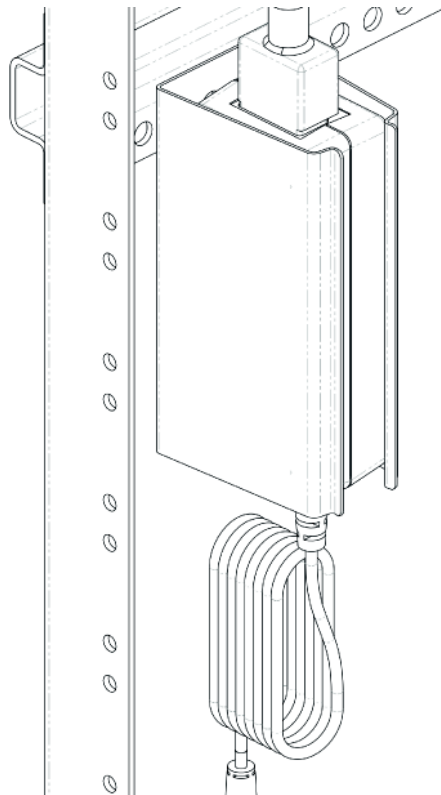
8. Plug the **power cord** into an electrical outlet.

## Mounting the Power Supply to a Standard Rack

The **Power Supply Mounting** bracket can be directly attached to a standard rack, horizontally or vertically as shown in Figure 17 and Figure 18.



**FIGURE 17.** Mounting Bracket – Horizontal on a Crossbar



**FIGURE 18.** Mounting Bracket – Vertical from a Crossbar

---

## **Bosch Security Systems, Inc.**

12000 Portland Avenue South  
Burnsville, MN 55337 U.S.A.  
[www.boschcommunications.com](http://www.boschcommunications.com)