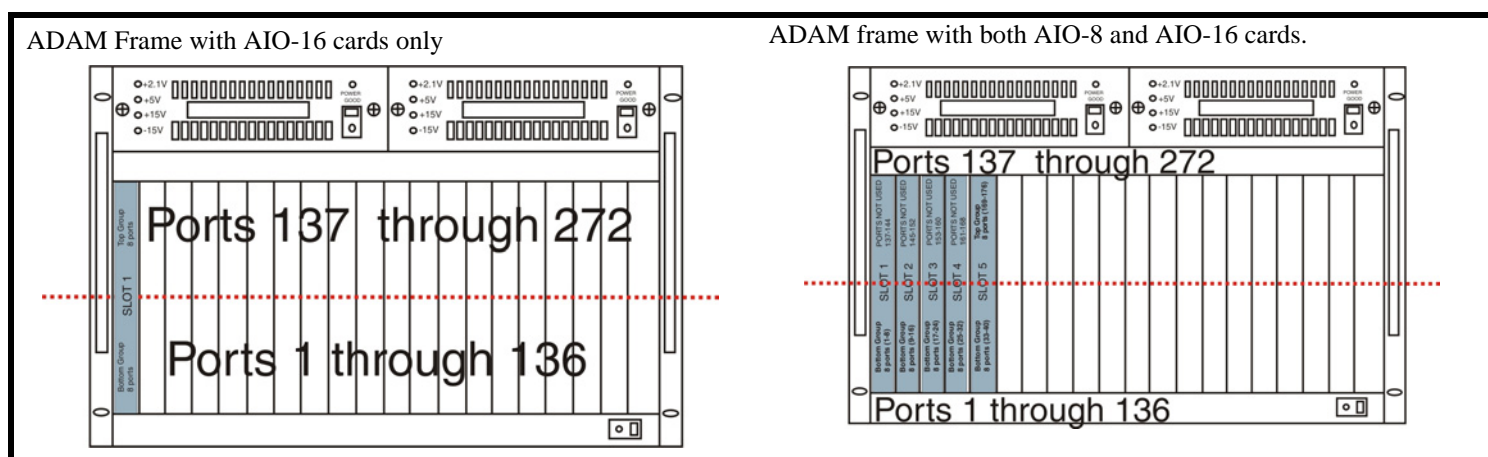


## Upgrading Your ADAM to High Density

**What is High Density?** High Density refers to the number of ports available for use within a multi-frame system. For example, a standard frame has 128 ports available for use; however, when high density is selected, the number of ports available becomes 256 (including the DBX cards. 272 ports without DBX cards). As the number of frames increases, the number of ports available on each frame decreases to accommodate the number of DBX cards used to connect the frames.

**AIO-16 Ports.** With the introduction of an AIO-16 card into the ADAM frame layout, the number of possible ports available doubles from 136 to 272 ports. This is because instead of 8 channels of audio per card, you now have 16 channels of audio per card. However, to be backwards compatible with the AIO-8 cards, the 16 channels had to be divided into two separate groups of eight channels per card (a bottom group and a top group). For example, if you have an AIO-16 card in slot one of an ADAM frame, the bottom group of eight channels will have ports 1-8 assigned to them, while the top group of eight channels will have ports 137-144 assigned to them, see below.



The ADAM Intercom System can run both the AIO-8 and AIO-16 card in the same frame, once you have upgraded the power supply in the ADAM frame. You can position your AIO-8 and AIO-16 cards in any slot or in any sequence within the ADAM frame. However, when mixing the AIO-8 and AIO-16 cards, it is important to know that the port numbering is consistent with the two-tier port system. For example, in slots 1,2,3 and 4, you have AIO-8 cards and in slot 5 you have an AIO-16 card. The port numbering scheme assigns 8 ports per card for the first four slots. When assigning ports to slot 5, the bottom group of ports are assigned in sequence with the AIO-8 cards; however, the top group of ports associated with the AIO-16 card are assigned the corresponding ports with the card position. This means that ports 137 through 168 are unused and the top group of ports used by the AIO-16 card starts with port 169.

**NOTE:** The port numbering is static, in that the port numbers used do not change whether you are using an AIO-8 or an AIO-16 card. Rather, it is a question of whether the ports shall or shall not exist.

### Upgrade your Adam to support AIO-8 and AIO-16 Cards




You must do the following to upgrade your ADAM to support AIO-16 cards:

- Have the new ADAM power supply installed. (p/n 9020-7516-001).
  - In a single frame system, have the Master Controller firmware 9.22.0 or higher installed.
  - In a multi-frame system, have the peripheral controller firmware 10.13.x or higher installed, have the DBX firmware 1.13.0 or higher installed.

**IMPORTANT:** Be sure to save the existing AZedit setup file (.adm) before confirming the switch over to High Density, because a 1st Birthday occurs when switching over.

- Using AZedit's Intercom Sizing Wizard (Options|Intercom Configuration|Options Tab), configure your system as High Density (following the wizard instructions).
- Insert the AIO-8 and AIO-16 cards in the slots you want.

**NOTE:** For more detailed information, see the AIO-16 User Manual (part number 9350-7726-000).

AIO-8 Breakout Panels	
Connector	Breakout Panel
<i>SCSI Connector</i>	
SCSI Connector	<ul style="list-style-type: none"><li>• XCP-40-DB9 - 9000-7515-000</li><li>• XCP-40-RJ11 - 9000-7494-000</li><li>• XCP-24 - 9000-7559-000</li><li>• XCP-24-USOC - 9000-7559-001</li></ul>
AIO-16 Breakout Panels	
<i>SCSI Connector</i>	
<i>MDR Connector</i>	
SCSI	<ul style="list-style-type: none"><li>• XCP-40-DB9 - 9000-7515-000</li><li>• XCP-40-RJ11 - 9000-7494-000</li><li>• XCP-24 - 9000-7559-000</li><li>• XCP-24-USOC - 9000-7559-001</li></ul>
MDR	<ul style="list-style-type: none"><li>• XCP-32-DB9 (32-port DB-9) - 9000-7810-000</li><li>• XCP-16-DB9-T (16-port DB-9) - 9000-7837-000</li><li>• XCP-48-RJ-45 (48-port RJ45) - 9000-7809-000</li><li>• XCP-48-Telco (6-port Telco) - 9000-7822-000</li></ul>

NOTE:

The AIO-16 Backcards

SCSI Backcard (9000-7726-002)

Backward compatibility to existing AIO-8 breakout panels. This card carries two single RS-485 data pairs; one data pair per group of 8 keypanel ports.

MDR Backcard (9000-7726-003)

Can be connected to 1RU, 48-port RJ-45 breakout panel or to a 2RU, 32-port DB-9 breakout panel. This card has 16 RS-485 data pair so each keypanel can communicate with the matrix separately. Because the MDR backcard has individual intelligent ports, addressing is done dynamically from the matrix to the keypanel.

AIO-16 Breakout Panel Usage

The AIO-16 back panels have 2 connectors (SCSI and MDR) per card. Each connector carries 8 ports per connector. These connections can be separated between multiple and different breakout panels, if desired. For example, if you are using an XCP-40-DB9 breakout panel, and you have four AIO-8 cards seated next to an AIO-16, you can connect the AIO-8 cards SCSI connections to J1, J2, J3, J4 on the XCP-40 breakout panel. You can then connect the AIO-16 J1 SCSI connector to J5 on the XCP-40 breakout panel and connect the AIO-16 J2 SCSI connector to another XCP-40 breakout panel.

For more detailed information, see the AIO-16 User Manual (9350-7726-000) and the Breakout Panel Resource Guide (LIT000061000) which can be found on our website [www.rtsintercoms.com](http://www.rtsintercoms.com).