PROMISE® TECHNOLOGY, INC.

VTrak x30

J930s Quick Start Guide

Warning

Before you begin, read the *VTrak VTJ930s – Warning and Caution Notice* document.

Task 1: Mounting the J930s Unit in a Rack

The VTrak J930s unit installs into your rack using the supplied mounting rail kit.

Before you start, verify that you have these rack-mount components:

- Rack rails (one left and one right)
- Rail installation hardware (screws, guides, and bars)
- Enclosure rails (one left and one right)

The rails are marked R for right and L for left, viewing from the front of the enclosure.

Mounting the Enclosure in a Rack

To install the J930s enclosure into a rack:

1. Loosen the screws on the left and right rack rails and adjust the lengths accordingly to match the depth of the rack. Then re-tighten the screws.
2. Secure the rack rails to the front and rear supports of the rack, using the screws and hardware as shown below.

Figure 1. Left rack rail, front view
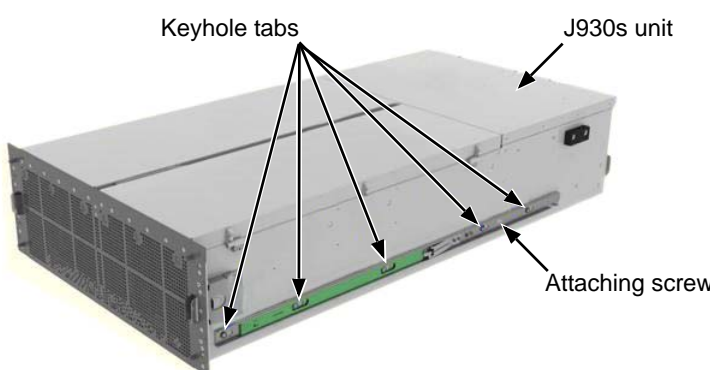

Rack rail attached at the front the rack

Figure 2. Left rack rail, rear view
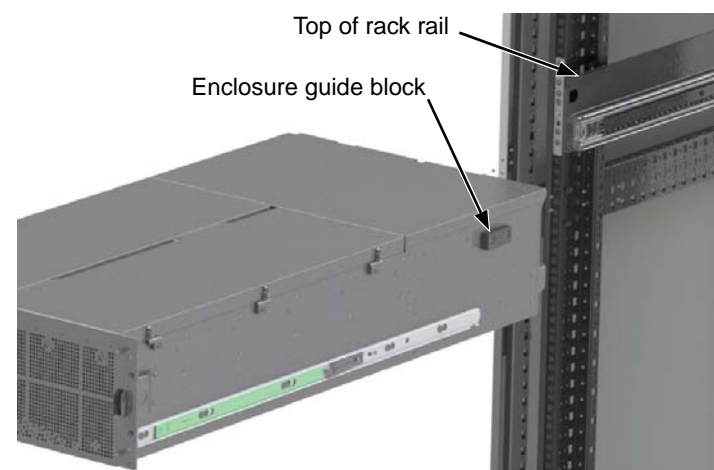

Rack rail attached at the rear of the rack

3. Tighten all screws securing the rack rails into the rack.
4. Position the enclosure rails on each side of the J930s unit with the rails over the five keyhole tabs. Then slide the enclosure rails into place. See Figure 3.

Figure 3. Side rails attached to the J930s unit
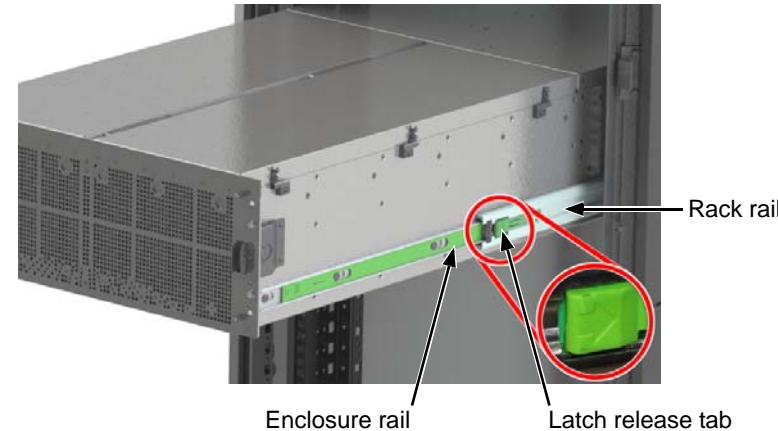

Keyhole tabs
J930s unit
Attaching screw

5. Anchor the rail to each side of the J930s unit as shown below using a single screw. See Figure 3.
6. Lift the J930s unit and place it in the rack with the guide blocks on top of the rails. This action removes some of the weight while connecting the rails from the rack to the enclosure. See Figure 4.

Figure 4. Guide blocks rest on top of the side rails

Top of rack rail
Enclosure guide block

7. Carefully engage the enclosure rails into the rack rails and slide the J930s unit into the rack until you hear a click. See Figure 5.

The click indicates that the enclosure rail tabs are locked into place.

Figure 5. Enclosure and rack rails
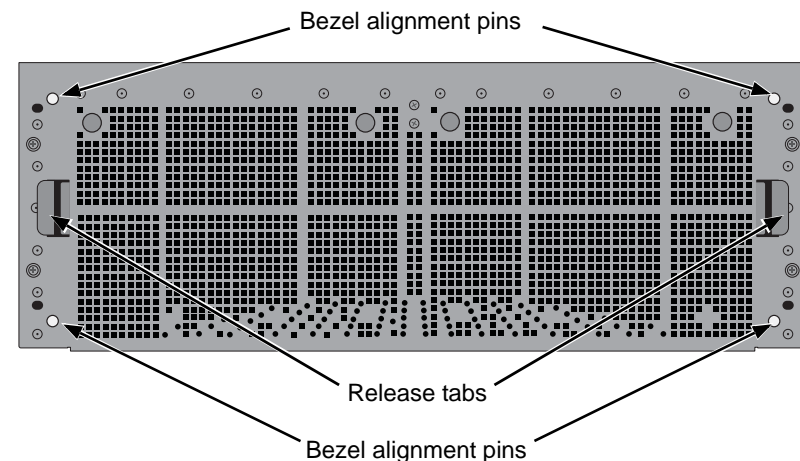

Rack rail
Enclosure rail
Latch release tab

8. Push the J930s unit all the way into the rack.

This completes mounting your J930s unit in the rack.

Task 2: Installing the Front Bezel

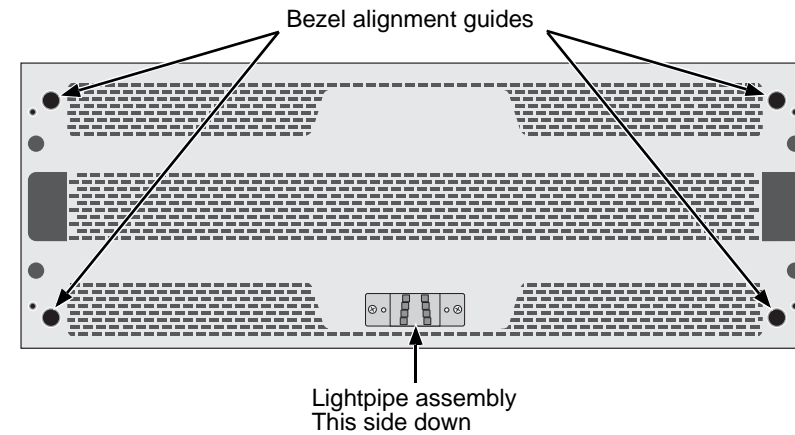To install the bezel onto the front of the J930s unit:

1. Squeeze the two release tabs on the front of the J930s unit. See Figure 6.
2. Carefully pull the J930s out of the rack until the enclosure rail tabs engage.

Figure 6. Front of the J930s unit without bezel

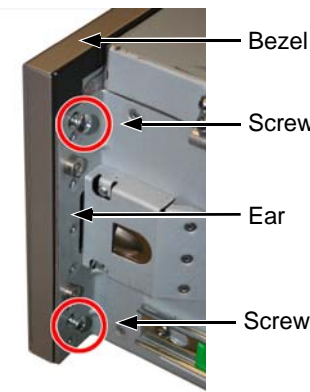Bezel alignment pins
Release tabs
Bezel alignment pins

3. Hold the bezel with the lightpipe assembly at the bottom. Position the bezel so the alignment pins on the J930s unit slide into the alignment guides on the inside of the bezel. See Figure 7.

Figure 7. Inside view of the bezel

Bezel alignment guides
Lightpipe assembly
This side down

4. Insert the screws through the ears on each side of the J930s unit. Two screws on each side. Gently tighten the screws. See Figure 8.

Figure 8. Attaching the bezel to the J930s unit

Bezel
Screw
Ear
Screw

5. Press the green rail tabs on either side of the J930s.
6. Carefully push the J930s into the rack until the two release tabs engage.

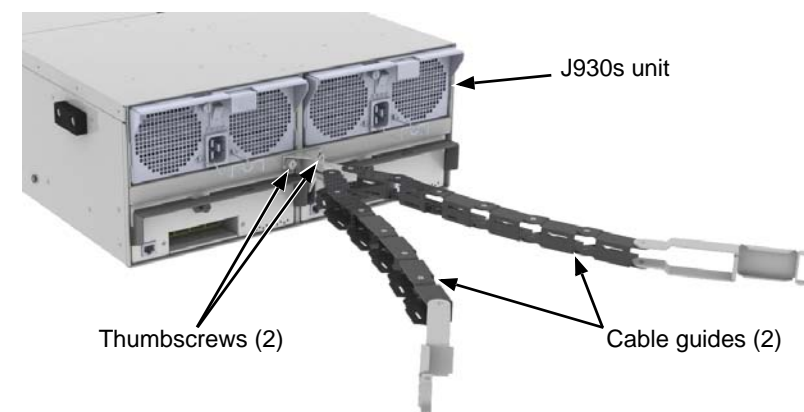## Task 3: Installing the Cable Management Kit

The J930s unit includes a cable management kit to organize your and SAS and power cables in the rack. The cable guides enable you to slide the J930s unit out of the rack without disconnecting or tangling your cables.

You must install the J930s unit in the rack before you can install the cable management kit.

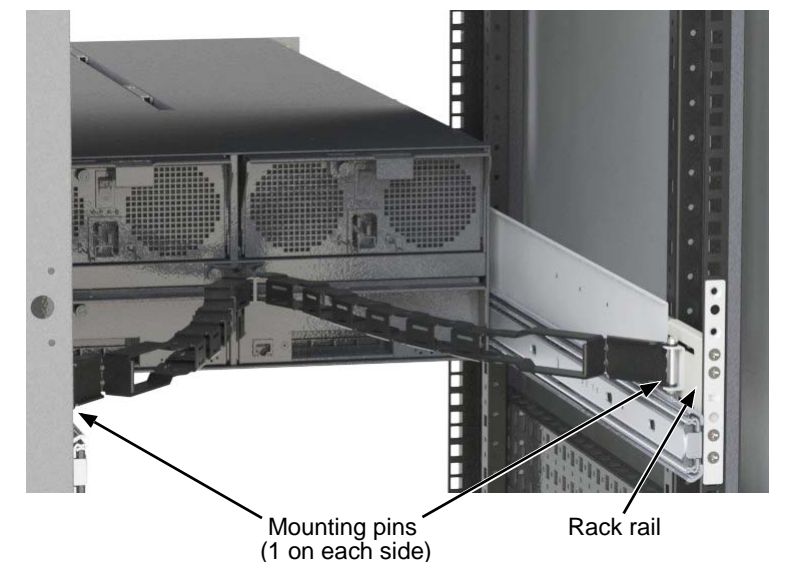To install the cable management kit:

1. Attach one end of each cable guide as shown below to the rear of the enclosure using the attached thumbscrews. See Figure 9.

Figure 9. Cable guides attached to rear of a J930s unit

J930s unit
Thumbscrews (2)
Cable guides (2)
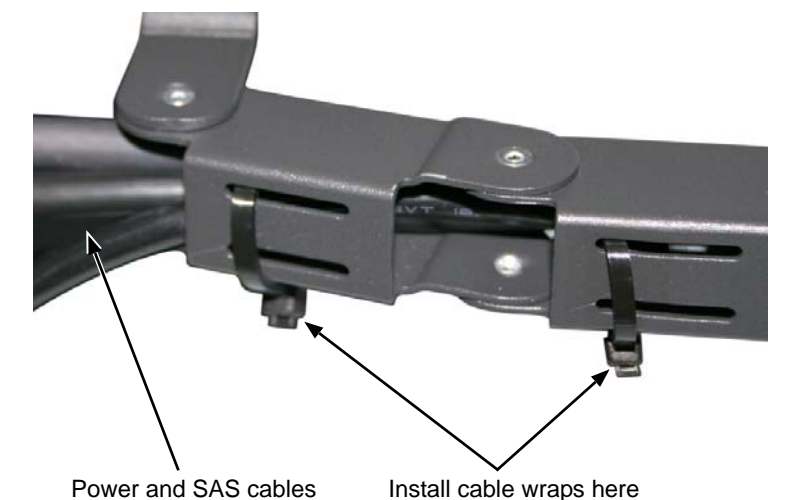
2. Attach the other end of cable guides to the rack rails using the pins from rack rail kit. See Figure 10.

Figure 10. Cable hardware attached to rear of rack.

Mounting pins
(1 on each side)
Rack rail

3. Route the SAS and power cables through the cable management rails as shown below.

The cable management rails have slots for plastic ties or Velcro cable wraps to hold the cables in place. See Figure 11.

Ties and wraps are not included.

Figure 11. Cable guide with SAS and power cables installed

Power and SAS cables
Install cable wraps here

4. Test the cable management system by sliding the J930s unit all the way out on the rails. Ensure that the unit moves smoothly and that there are no cables loose or binding when the system is slid back into the rack.

This completes the installation of the cable management kit.

Task 4: Installing Physical Drives

The VTrak J930s JBOD expansion unit supports:

- 3.5-inch and 2.5-inch form factor
- SAS drives, 6 Gb/s and 3 Gb/s
- Hard disk drives (HDDs) and solid state drives (SSDs)
- Supports any mix of SAS and SATA drives simultaneously in the same enclosure

For a list of supported physical drives, download the latest compatibility list from the PROMISE support web site.

Assembling Drive Carriers for 3.5-inch Drives

For 2.5-inch drives, see Chapter 2 of the *VTrak J930s Product Manual*.

The drive carrier consists of two parts, a release rail and a pivot rail, plus the attaching screws.

To assemble a drive carrier:

1. Attach the release rail to the physical drive with two screws, as shown in Figure 12.

The drive's data/power connector is at the bottom.

2. Position the carrier pivot rail to the physical drive so that Tab A on the release rail inserts into Slot B on the pivot rail.
3. Attach the pivot rail to the physical drive with two screws.
4. Tighten the drive carrier screws to 4 to 6 inch-pounds (0.45 to 0.67 Nm).

Do not over-tighten.

This completes drive carrier assembly. See Figure 13.

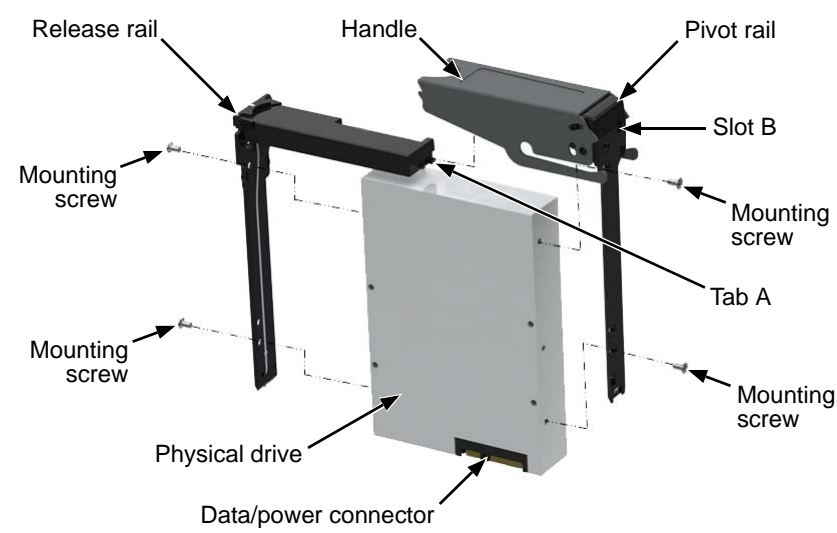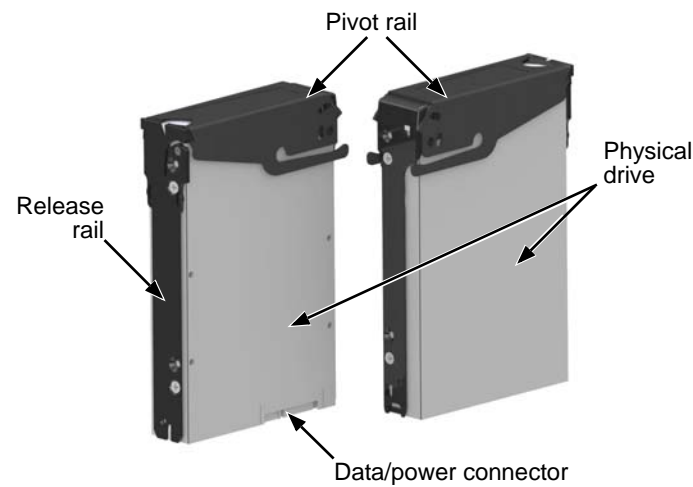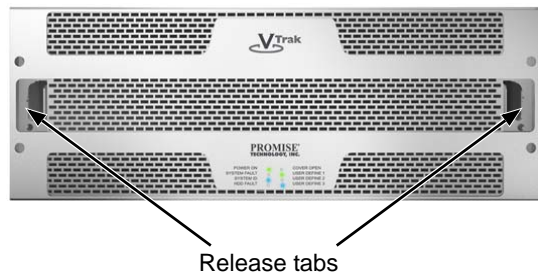Figure 12. Drive carrier with a 3.5-inch drive

Figure 13. Assembled drive carrier with a 3.5-inch drive
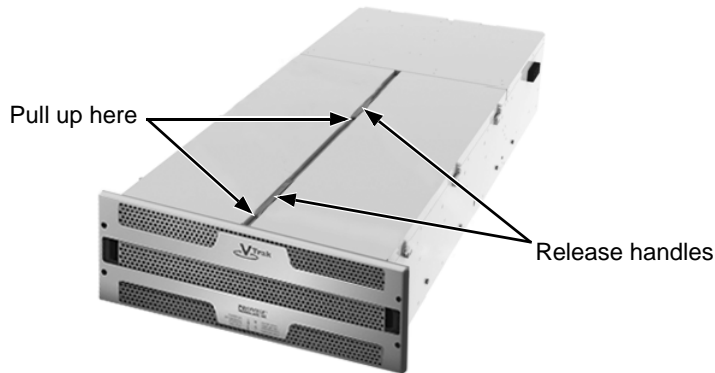

Installing the Drive Carriers

To install the drive carriers into the J930s unit:

1. Squeeze the two release tabs on the front of the J930s unit. See Figure 14.

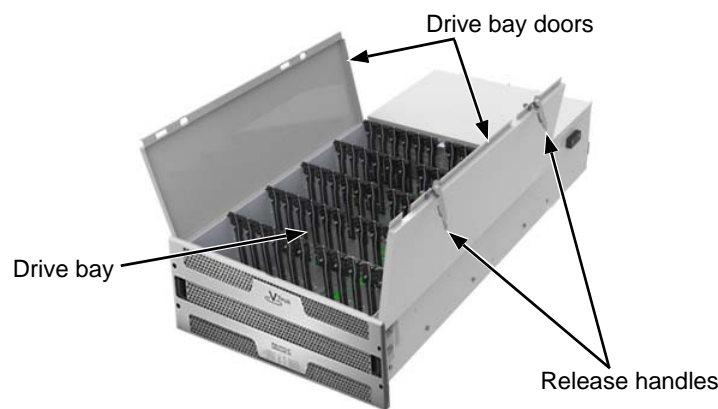Figure 14. Rack release tabs on the J930s unit

2. Carefully pull the J930s unit out of the rack until the latches engage.
3. Pull up on the release handles of the drive bay doors to unlock them.
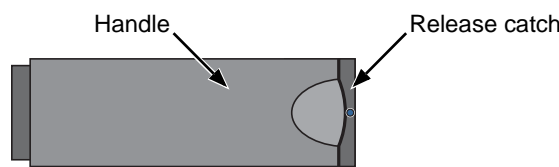   See Figure 15.

Figure 15. Drive bay doors

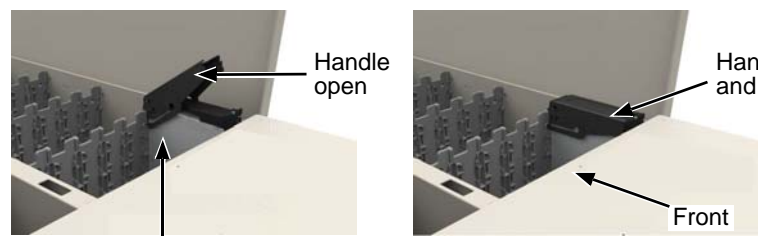4. Open the drive bay doors.

Figure 16. Drive bay open

5. Pick up a drive carrier assembly and press the release catch to release the handle. See Figure 17.

Figure 17. Drive carrier assembly

6. Slide the drive carrier assembly into a drive slot until the carrier contacts the baseboard. Carefully press down on the handle until it locks the drive carrier assembly into place. See Figure 18.

Figure 18. Sliding the drive carrier assembly into a slot

7. Repeat Steps 5 and 6 for all remaining drives.
8. Close the drive bay doors and press the release handles to lock them into place.
9. Press the green latch release tabs on both sides of the J930s unit.
10. Carefully push the unit back into the rack until the front latches engage.
    See Figure 19.

Figure 19. Latch release tab

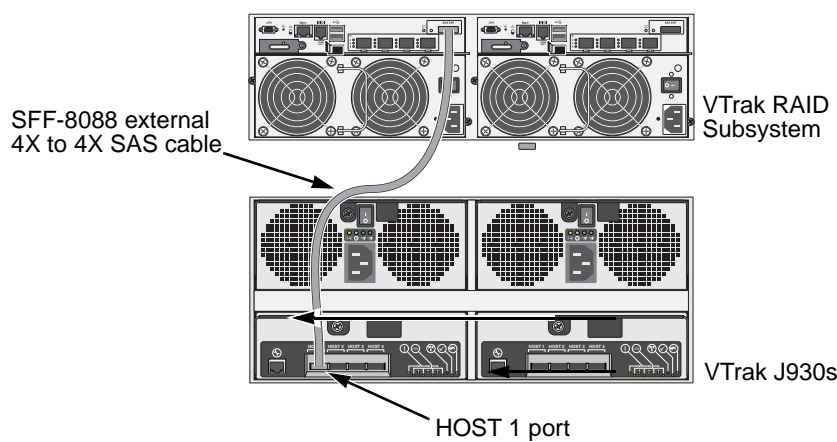When you have finished installing your drives, go to "Making Data Connections."

Task 5: Making Data Connections

You can configure your VTrak J930s unit as:

- Basic Direct Attached Storage (DAS) Connection
- Cascading DAS Connection
- Redundant Cascading DAS Connection

Basic DAS Connection

To setup a basic DAS connection:

- Connect the SAS EXP port on the VTrak RAID subsystem to the HOST 1 (SAS IN) port on the J930s unit. See Figure 20.
- Use the SFF-8088 4X to 4X external SAS cable supplied with the J930s unit.

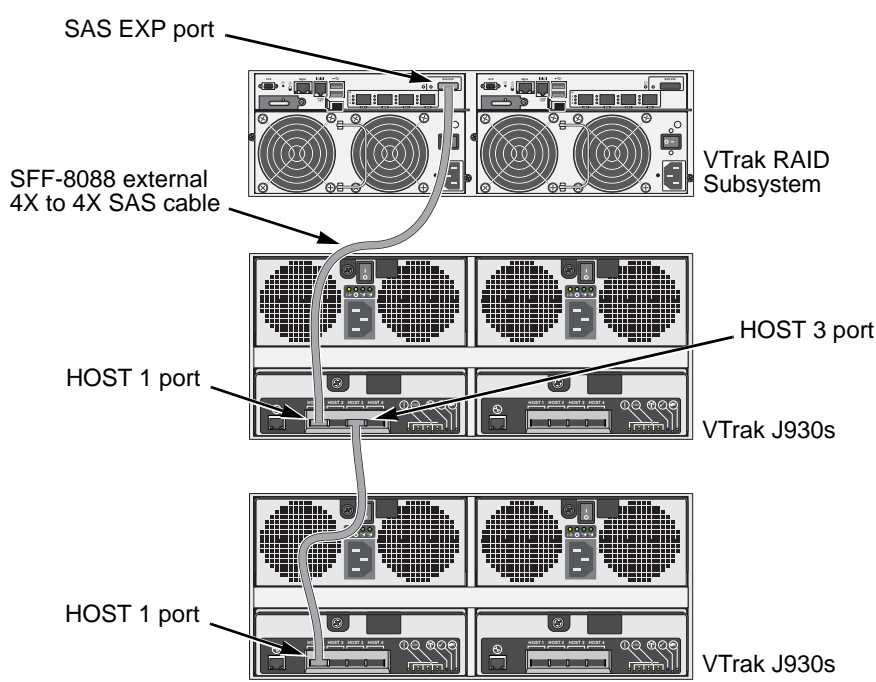Figure 20. A basic DAS connection

This completes data cable connections. Go to "Connecting the Power."

Cascading DAS Connection

To setup a cascading DAS connection:

1. Connect the SAS EXP port on the VTrak RAID subsystem to the HOST 1 (SAS IN) port on the first J930s unit.
   See Figure 21. Use a SFF-8088 4X to 4X external SAS cable (supplied with the J930s unit).
2. Connect the HOST 3 (SAS OUT) port on the same I/O module of the first VTrak to the HOST 1 (SAS IN) port on the second J930s unit.
   You can cascade up to two J930s units in this manner.

Figure 21. A cascaded DAS connection

This completes the data cable connections. Go to "Connecting the Power."

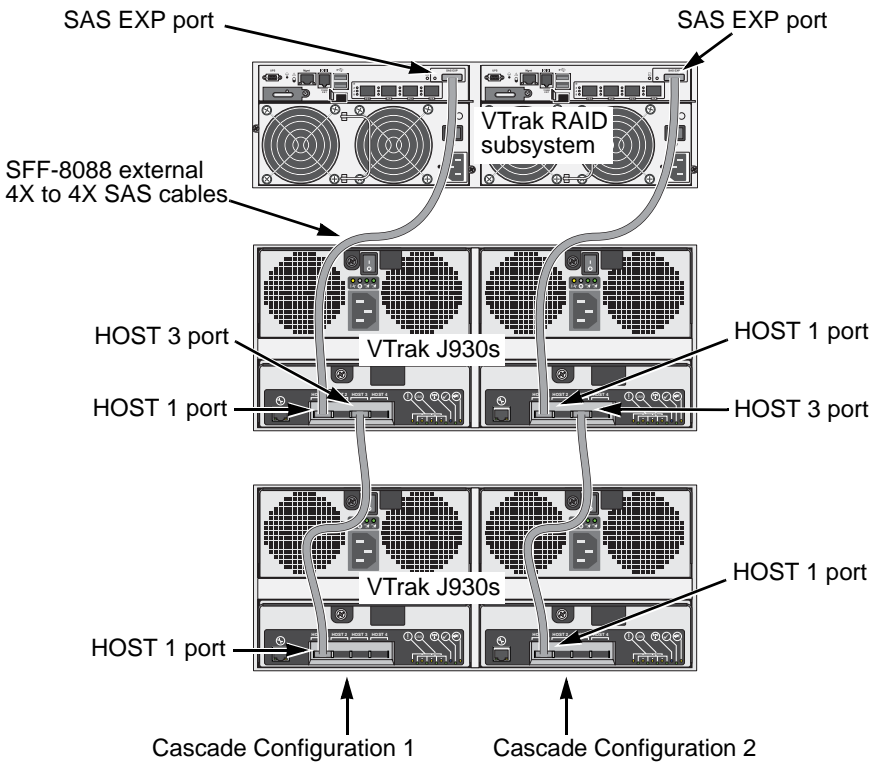## Redundant Cascading DAS Connection

To setup a redundant cascading DAS connection:

1. Connect a SAS EXP port on the VTrak RAID subsystem to the HOST 1 (SAS IN) port on the first J930s unit.
   See Figure 22. Use a SFF-8088 4X to 4X external SAS cable (supplied with the J930s unit).
2. Connect the HOST 3 (SAS OUT) port on the same I/O module of the first J930s unit to the SAS IN port on the second J930s unit.
3. Connect the other SAS EXP port on the VTrak RAID subsystem to the HOST 1 (SAS IN) port to the other I/O module on the first J930s unit.
4. Connect the HOST 3 (SAS OUT) port on the same I/O module of the first J930s unit to the HOST 1 (SAS IN) port of the other I/O module on the second J930s unit.
5. Connect the remaining J930s units in the same manner.
   Do not cross-connect the I/O modules. Maintain a separate cascade configuration from the VTrak RAID subsystem to the last J930s unit. See Figure 22.
   You can cascade up to two J930s units in this manner.

Figure 22. A redundant cascading DAS connection

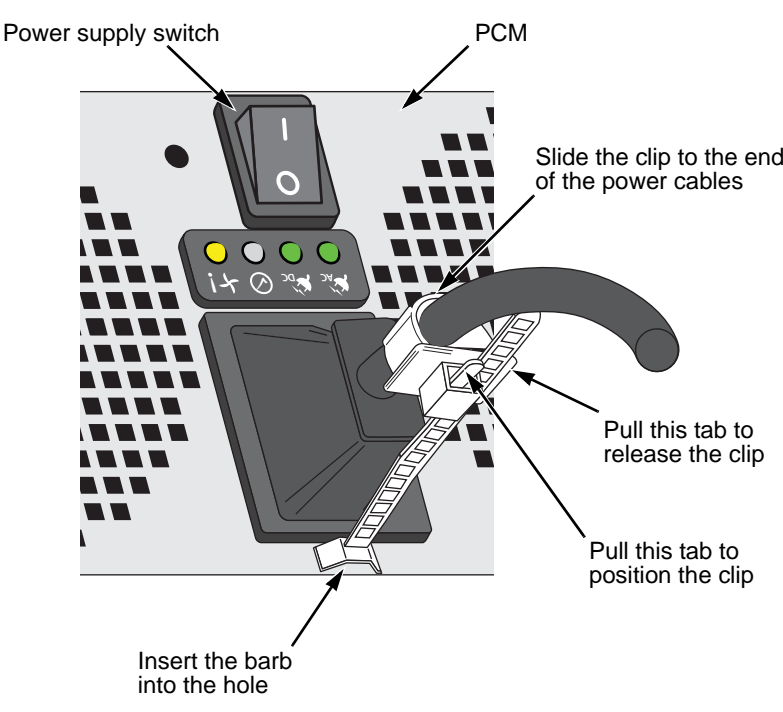This completes the data cable connections. Go to "Connecting the Power."

Task 6: Connecting the Power

The VTrak J930s ships with clip assemblies to secure the power cables. The clips attach to the Power Supply/Cooling Unit (PCM).

To secure the power cables:

1. Insert the barbed end of the band into the hole until it snaps into place.
2. Attach the power cables to the PCM.
3. Place the clip over the power cables, slide the clip to the end, then squeeze the clip to tighten it. See Figure 23.

Figure 23. Securing a power cable with the clip assembly

To reposition or release the clip, pull the tabs as shown.

Power-up Sequence – Single Unit

To power up a single VTrak J930s unit:

1. Switch ON both PCMs of the J930s unit.
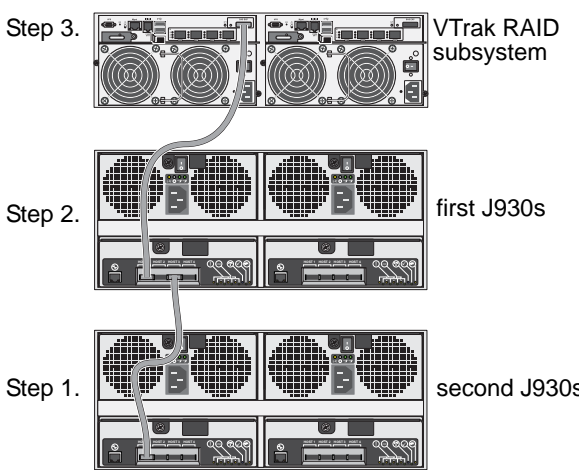2. Wait at least one minute and then power up the VTrak RAID subsystem.

Power-up Sequence – Multiple Units

In the power up sequence, the "first J930s" refers to the J930s unit connected to the VTrak RAID subsystem. The "last J930s" refers to the J930s unit at the end of the cascade.

To power up the multiple VTrak J930s units:

1. Switch ON both PCMs of the last J930s unit in the cascade. See Figure 24.
2. Wait at least one minute and then switch ON both PCMs of the next J930s unit in the cascade.
3. Wait at least one minute and then power up the VTrak RAID subsystem.
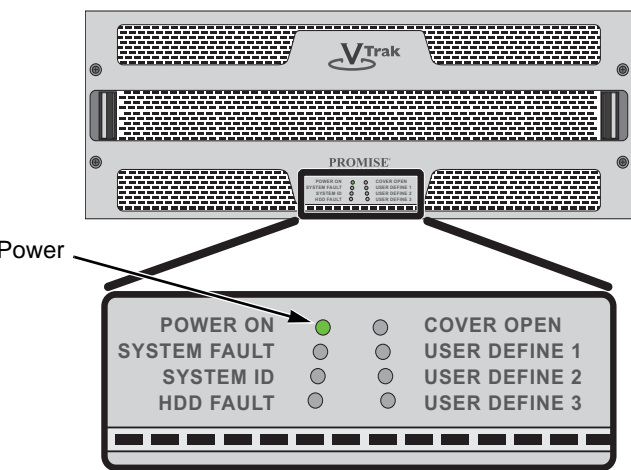
Figure 24. Power-up sequence for cascaded units

When boot-up is finished and the J930s unit is functioning normally:

- The Power LED shows green.
- Other LEDs are dark.
  See Figure 25.

Figure 25. J930s front panel LED display

If any other LEDs are lit, see Chapter 3 of the VTrak J930s Product Manual.

Need assistance and more information?

PROMISE On-line™ Web site	http://www.promise.com/support/support_eng.asp
E-mail Support	http://support.promise.com