

DVAA Series Disk Array for DVRI Series Digital Video Recorder

Installation Instructions

Eng



Warning!

To prevent fire and electronic shock, do not expose this product to rain or moisture.



The lightning flash with the arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



Caution!

To prevent electric shock, do not remove cover. No user serviceable components inside. Refer servicing to qualified service personnel.



Caution! Lithium Battery

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.



Attention

This product contains a recyclable lithium battery. It may be illegal to dispose of this battery improperly under local, state, or federal laws. Check with your local waste management officials for disposal and recycling options.

Caution! Electrostatic-Sensitive Device!

Use proper CMOS and MOSFET handling precautions, including approved grounded wrists straps, etc., to avoid damage to this unit or its internal components, from electric discharge.



Warning!

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions in this manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to subpart J of part 15 of FCC rules which are designed to provide reasonable protection against such interference when operated in a commercial environment. This equipment has also been tested and found to comply with the requirements for a CE Class A device and TUV safety standards.

Operation of this equipment in a residential area may cause interference, in which case the user is required to take all measures that are necessary, at the user's expense, to correct the interference.

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1 Installation

1.1 Product Description

The DVAA is a large, economical, hard drive based storage/archive device. It is available with 4 hard disk drives (model DVAA0412) or 8 hard disk drives (model DVAA0812). The DVAA0412 unit can later be repopulated with additional hard drives.

1.2 Unpacking

Check the package and contents for visible damage. If any components are damaged or missing, do not attempt to use the unit. Contact the supplier immediately. If the unit must be returned, it must be shipped in the original packaging.

Package Contents

- The DVAA unit.
- US & EU Power Cables.
- SCSI cable (Part No. **CDW138264**)
- This Installation Guide
- IDE Hard Drive Power Cables (Not provided with the DVAA0812)
- IDE Hard Drive Ribbon cables (Not provided with the DVAA0812)
- Hard Drive Fastening Screws. (Not provided with the DVAA0812)

1.3 Installation Environment

Power: Ensure that the site's AC power is stable and within the rated voltage of the disk array. If the site's AC power is likely to have spikes or dips, use power line conditioning or an Uninterruptable Power Supply.

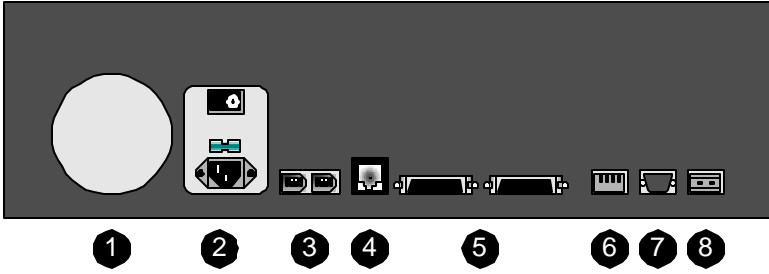
Ventilation: Ensure that the location is well ventilated. Do not obstruct the cooling vents or fans.

Temperature: Insure the ambient temperature is within 0 to 40° Centigrade (32° to 104° Fahrenheit).

Do not install this unit on top of other hot equipment.

Moisture: Do not expose the unit to rain or moisture.

1.4 Rear Panel Diagram



Rear Panel Elements

1. **Cooling Fan:** Do not obstruct.
2. **Power Connector, Voltage Selector and On/Off Switch**
3. **IEEE-1394 Firewire Ports 1 and 2***
4. **10/100 Ethernet Port***
5. **SCSI Ports 1 and 2**
6. **Dip Switches***
7. **RS-232 Port**
8. **Alarm Out Relay Connection***

1.5 Connections

NOTE:

* The Ethernet, Aux dip switch, Alarm output and IEEE-1394 Firewire ports are reserved for future upgrade.

SCSI Ports 1 and 2

Connect to either SCSI port. Using the dip switches on the rear of the unit, set **SCSI Termination** and **SCSI Power** to **On**.

Connector: 50 pin, high density SCSI-2.
Gender (on unit): Female.
SCSI ID: 0.

The unit does not currently support multiple SCSI device connections.

RS-232 Port

The RS-232 port is used for flash upgrading the DVAA operating system software.

Connector Type: DB-9.
Gender (on unit): Male.
Cable Required: Null Modem.

DB-9 Pin Configuration For RS-232 Port

Pin	Use
1	DCD
2	RX
3	TX
4	Not Connected
5	Ground

Pin	Use
6	Not Connected
7	RTS
8	CTS
9	Not Connected

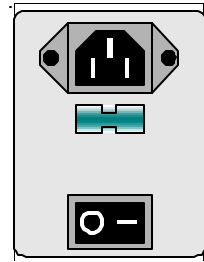
1.6 Power-Up

Select the correct voltage before supplying power to the unit.

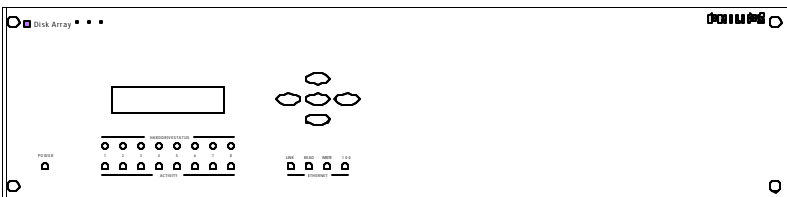
Use the voltage selector switch located on the rear panel of the unit, between the power connector and the On/Off Switch.

Caution: Applying incorrect voltage could damage unit.

Once the correct voltage has been selected and all connections have been made, apply power to the unit.



1.7 Front Panel Indicators



Hard Drive Status Indicators (Green Lights)

Light On: Drive present and operating.

Light Flashing: Drive present, error detected.

Light Off: No drive present, or drive damaged beyond recognition.

Hard Drive Activity Indicators (Red Lights)

The light blinks when the drive is being accessed (read or write).

Ethernet Indicators

Reserved for future use.

LCD Display

Once power-up is complete, the LCD will display the total disk storage capacity of the unit.

Key Pad

Reserved for future use.

2 DVAA/DVR1 Installation

The Philips DVAA Disk Array is only compatible with the DVR1 series digital video recorder.

2.1 Connecting to the DVR1

- 1) Connect the SCSI cable from the DVR1 to the DVAA series disk array.
- 2) Apply Power to the DVAA and wait 20 seconds
- 3) Apply Power to the DVR1

2.2 Configuring the DVR1

- 1) Configure the DVR1 Background Archive to ON (ARCHIVE SETUP > BACKGROUND ARCHIVE > ON)
- 2) Configure the DVR1 Archiving Overwrite mode for Continuous Overwrite (ARCHIVE SETUP > ARCHIVE OVERWRITE MODE > CONTINUOUS OVERWRITE)
 - **Note:** The Disk Array does not support the other Overwrite Modes.

Optional:

- 3) Configure the Archive status to ON (DISPLAY SETTINGS > ARCHIVE STATUS > ON). This will display "Archive Not Connected" if the Archive Device is not communicating or working properly.

2.3 DVR1 Archiving Limitations:

1. The DVR1 cannot Background archive images greater than 20 ips (NTSC) 17 ips (PAL). The DVR1 can selectively archive video recorded at any speed.
2. The DVR1 cannot properly playback video at speeds greater than 20 IPS (NTSC), 17 IPS (PAL). It is recommended to first restore the video to the DVR1's hard drive (ARCHIVE SETUP > RESTORE FROM ARCHIVE).

3. Before restoring archive data from the disk array (searching the disk array's indexes), the DVR1 must stop recording.

3 Adding Hard Drives

This section is required if your unit was shipped without hard drives installed, or if the user needs to replace a faulty drive.

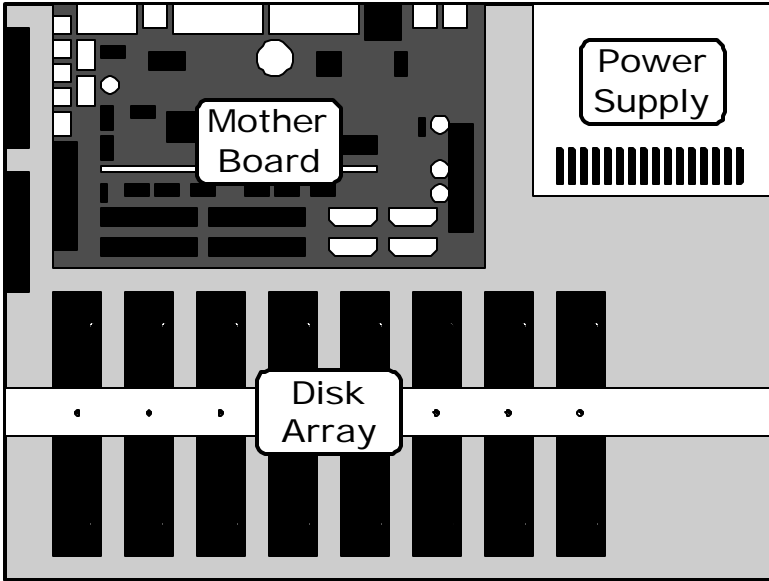
Caution: Do not allow any metal object to contact the motherboard. Do not allow loose screws to become lost inside the DVAA chassis. Wear an Electro Static Discharge protection device any time work is being performed inside the unit.

3.1 Opening The DVAA

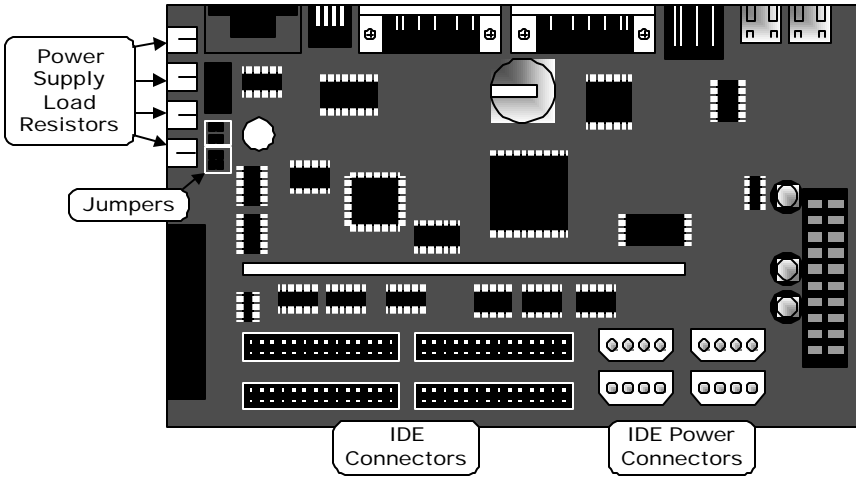
Before removing the cover, turn off the unit and unplug it. Using a Phillips -head screwdriver, carefully remove the twelve screws fastening the lid to the chassis. Save the screws and use them to refasten the lid when finished.

3.2 Identifying The Components

Complete Internal Overview



Motherboard Overview



3.3 Mounting The Hard Drives

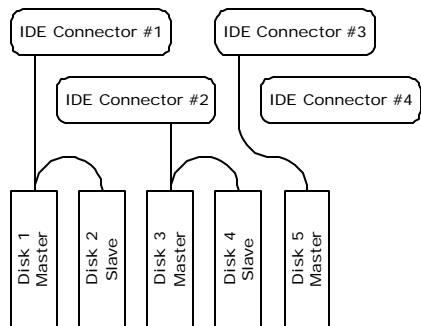
First remove the hard drive support bracket. Orient the hard drive so that the IDE Power Connector is near the bottom of the chassis and facing the motherboard. Populate the drive array in order, starting from the left.

Fasten the drive in place using the supplied screws. Fasten each drive using two screws through the bottom of the chassis. Attach the Hard Drive Support Bracket then fasten the hard drives to the bracket using the screws.

3.4 Configuring Master/Slave

Hard drives are connected in pairs to each of the four IDE connectors. Each pair of hard drives must have a Master and a Slave. Configure the Master/Slave setting on each hard drive individually using the jumpers provided with the drive. Use the diagram located on the hard drive to determine the proper jumper configuration.

If a single drive is connected to an IDE connector, it must be configured as a Master.



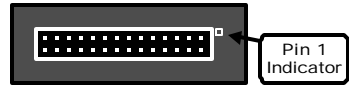
When configuring the jumpers on the hard drive, select **16 Heads, Master or Slave**.

3.5 Connecting Hard Drives

Use an IDE cable to connect drives as shown in the previous diagram. When attaching the IDE connector, make sure the connectors are oriented properly.

Connecting To The Motherboard

The red stripe on the connection ribbon should connect nearest the Pin 1 indicator on the motherboard.



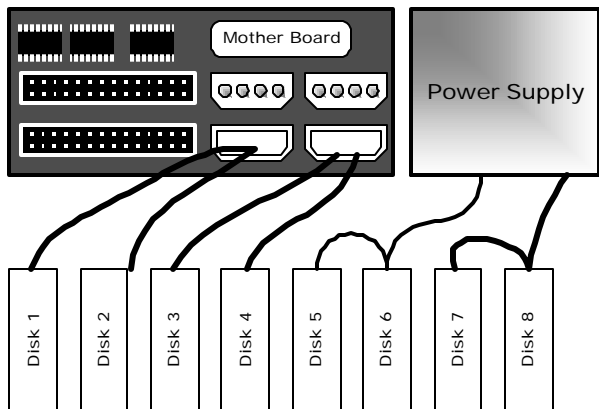
Connecting To The Hard Drive

The red stripe on the connection ribbon should connect near the jumpers on the hard drive.



3.6 Powering Hard Drives

Connect the hard drives as shown in the diagram.



3.7 Compatible Hard Drives

The following is a list of hard drives that are compatible with the DVAA series disk array.

Maxtor Drives

Model	Part Number	Size
Vulcan	4W030H2	30GB
Vulcan	4W100H2	100GB
Romulus	4D120J6	120 GB
Galaxy	4K040H2	40GB
Galaxy	4K080H2	80GB

IBM Drives

Model	Part Number	Size
IBM	07N3925	30GB
IBM	07N3935	75GB

4 Warranty

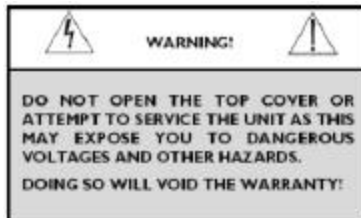


This product offers a 3year warranty. The warranty does not cover hard drives not installed by the factory and does not cover damages that may occur due to improper hard drive installation.

5 Factory Service

Refer all Service to qualified personnel.

Contact the local Philips representative for service.



Service Centers:

USA: Ph: 800-366-2283

Central & S. America: 805-967-7917 (fax: 800-366-1329)

(e-mail: philipscsirma@mdtglobal.com)

Canada: 514-738-2434 (fax: 514-738-8480)

Europe and Asia: 011-32-1-440-0711 (fax: 011-32-1-442-7054)

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