DataGeneral

Customer Documentation

READ THIS FIRST



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About This Manual

This manual will assist you in finding the documentation you need to initially set up and start your AViiON® computer or workstation and install your DG/UX[™] system software. It also provides titles, along with brief descriptions, of other manuals you may want to look at after your system is up and running.

This manual consists of the following major sections:

- Installing AViiON Computer Hardware.
- Installing the DG/UX Operating System.
- Hardware Manuals (a listing that is organized by series of AViiON computers and workstations).
- Software Manuals (a listing that is organized by types of software).
- Other Manufacturers' Documents.

Where to Begin

At this point, you are probably looking at a pile of boxes and manuals, and wondering where to begin. In this case, proceed as follows.

- First unpack and install your computer or workstation and its peripheral devices.
- Then unpack and install your operating system software.

The next two sections of this manual, "Installing AViiON Computer Hardware" and "Installing the DG/UX Operating System," identify the primary manuals you need to perform these tasks. Brief descriptions of the manuals described in these sections appear in the "Hardware Manuals" and "Software Manuals" sections, respectively.

After your new system is installed, you can look through the remaining sections of this manual and the *Guide to AViiON® and DG/UXTM Documentation* (069–701085). They describe other books you may be interested in reading.

Installing AViiON Computer Hardware

First read the appropriate manuals listed below that describe how to set up and start, and optionally test your AViiON computer or workstation hardware.

For Workstations

Setting Up, Starting, and Maintaining AViiON® Workstations: 100, 200, and 300 Series (014–001886)

Setting Up, Starting, Expanding, and Maintaining AViiON® Computer Systems: 400, 3000, and 4000 Series (014–002083)

Setting Up and Installing VMEbus Options in AViiON® Systems (014–001867) (Applies only to AViiON systems that include the VMEbus.)

HPS Downloadable Cluster Controller Installation Guide (014-001814) (Applies only to AViiON systems that include the VMEbus.)

Using AViiON System Diagnostics (014-001863)

For Multiuser and Server Computers

Setting Up, Starting, Expanding, and Maintainng AViiON® Computer Systems: 400, 3000, and 4000 Series (014–002083)

Setting Up and Starting AViiON® 5000 Series Systems (014-001806)

Expanding AViiON® 5000 Series Systems (014-001850)

Starting AViiON® 6000 Series Systems (014–001819)

Notice: AViiON® 7000 and AViiON® 8000 Series System Documentation (014-002092)

Setting Up and Installing VMEbus Options in AViiON® Systems (014–001867)

HPS Downloadable Cluster Controller Installation Guide (014-001814)

Using the AViiON System Control Monitor (014–001802)

Using AViiON System Diagnostics (014–001863)

For Add-on, Mass-Storage Peripherals Enclosures

Operating the High-Availability Disk-Array Subsystem (014-002059)

Expanding and Maintaining the High–Availability Disk–Array Subsystem (014–002060)

Information Update for the High-Availabity Disk-Array Subsystem (014-002096)

Installing and Maintaining the CSS2/DC (014-002061)

Maintaining the CSS2 (014–002032)

CSS2 and CSS2/DC Disk-Array Subsystem Supplement (014-002093)

Information Update for CSS2 Series Disk-Array Subsystems (014-002110)

Installing and Operating the Model 10565 Peripheral Housing Unit (014–001810)

NOTE: If you want to install a disk or tape unit in one of these enclosures, or if you need to verify a unit number of a disk or tape drive that was factory-installed, also see the appropriate disk or tape manual. These manuals are listed in the "Hardware Manuals" section of this manual.

Where to Go Next

If you are installing the DG/UX operating system, continue on to the next section. If not, see the documentation for installing your operating system.

Installing the DG/UX Operating System

Before you proceed further, find the DG/UX release notice that shipped with your system. The title of this release notice identifies the DG/UX release you will install on your AViiON computer or workstation.

- If you have DG/UX Release 4.30, Update x (for example, Update 2 or Update 4), continue on with this section of this manual.
- If you have DG/UX Release 5.4, leave this manual and follow the instructions pertaining to installing the DG/UX system outlined in the following brochure:

Installation Roadmap (069-701084)

Also see Guide to AViiON® and DG/UX^{TM} Documentation (069–701085).

Installing DG/UX Release 4.30, Update x

Before you install the DG/UX Release 4.30, Update x software on your AViiON computer or workstation, read your DG/UX release notice. Also find and read the DG/UX media notice. The latter contains useful information, some of which does not appear in other documents.

Next select the appropriate DG/UX installation manual(s) described below that matches your AViiON system type and the DG/UX configuration you plan to install.

For AViiON Workstations

Initially Installing and Setting up the DG/UX[™] System on a Stand–Alone AViiON® Workstation (069–000520)

This manual supplies step-by-step instructions for installing the DG/UX system in a *stand-alone* workstation configuration. In this context, stand-alone means a workstation that has its own hard disk and cartridge tape drive, and will not be configured as a DG/UX server or an operating-system (OS) client of a DG/UX server. For more information about DG/UX servers and OS client workstations, see below.

Initially Installing and Setting up the DG/UX[™] System on AViiON® Servers with Clients (069–000549)

This manual supplies step-by-step instructions for installing a DG/UX server system on an AViiON workstation or computer that is connected to an Ethernet-based local area network (LAN). A DG/UX server supplies a bootable operating-system image to workstations that function as OS clients and are connected to the Ethernet-based LAN. OS client workstations are typically diskless. DG/UX server systems also support X terminal clients.

In addition, this manual tells how to boot an AViiON OS client workstation via the network and set it up so that it can perform useful work.

To install the DG/UX server system (and its clients), you will also need the following manuals:

Setting Up and Managing TCP/IP on the DG/UX[™] System (093–701051)

Managing NFS® and Its Facilities on the DG/UX[™] System (093-701049)

For AViiON Multiuser Computers

Initially Installing and Setting up the DG/UX[™] System on a Multiuser AViiON® Computer (069–00562).

This manual supplies step-by-step instructions for installing the DG/UX system on an AViiON computer that functions in a traditional timesharing environment; that is, one in which the operating system supports a multitude of asynchronous data terminal devices via asynchronous terminal controllers.

If your AViiON computer includes a disk-array subsystem, also see the appropriate manuals listed below.

Operating the High–Availability Disk–Array Subsystem (014–002059)

Information Update for the High-Availabity Disk-Array Subsystem (014-002096)

CSS2 and CSS2/DC Disk-Array Subsystem Supplement (014-002093)

Installing and Maintaining the CSS2/DC (014-002061)

Information Update for CSS2 Series Disk-Array Subsystems (014-002110)

For AViiON Server Computers

Initially Installing and Setting up the DG/UX[™] System on AViiON® Servers with Clients (069–000549)

This manual supplies step-by-step instructions for installing a DG/UX server system on an AViiON workstation or computer that is connected to an Ethernet-based local area network (LAN). A DG/UX server supplies a bootable operating-system image to workstations that function as OS clients and are connected to the Ethernet-based LAN. OS client workstations are typically diskless. DG/UX server systems also support X terminal clients.

In addition, this manual tells how to boot an AViiON OS client workstation via the network and set it up so that it can perform useful work.

To install the DG/UX server system (and its clients), you will also need the following manuals:

Setting Up and Managing TCP/IP on the DG/UX[™] System (093–701051)

Managing NFS[®] and Its Facilities on the DG/UX[™] System (093–701049)

If your AViiON server computer will support asynchronous terminal controllers, also see Initially Installing and Setting up the DG/UX^{TM} System on a Multiuser AViiON® Computer (069–00562).

In addition, if your AViiON server computer includes a disk-array subsystem, see the appropriate manuals listed below.

Operating the High-Availability Disk-Array Subsystem (014-002059)

Information Update for the High–Availabity Disk–Array Subsystem (014–002096)

CSS2 and CSS2/DC Disk-Array Subsystem Supplement (014-002093)

Installing and Maintaining the CSS2/DC (014-002061)

Information Update for CSS2 Series Disk-Array Subsystems (014-002110)

For All AViiON Workstations and Computers

Installing and Managing the DG/UX[™] System (093–701052)

This manual supplies additional information not found in the DG/UX installation manuals described above. In particular, refer to this manual if you are updating or upgrading an existing DG/UX system.

NOTE: With the exception of *Installing and Managing the DG/UX*[™] System, the DG/UX installation manuals described above do not assume familiarity with the DG/UX system or other UNIX®-based operating systems.

What to Do Next

Now that you have found the manuals you need to install your AViiON hardware and the DG/UX operating system, you have the necessary information to install your system.

The remaining sections of this book supply only reference information.

Hardware Manuals Organized by Computer System

This section describes Data General manuals for each AViiON series system. Use this section for reference after your computer hardware is installed and your operating system is up and running. Read the manuals that apply to your system and to the task you want to accomplish. Many — but not necessarily all — manuals shown are shipped with the computer hardware. To order additional manuals, please use the TIPS form included at the back of this manual.

Manual titles are listed by section: AViiON 100, 200, and 300 Series; AViiON 400, 3000, and 4000 Series; and AViiON 5000, 6000, 7000, and 8000 series.

AViiON 100, 200, and 300 Series Workstations

Setting Up, Starting, and Maintaining AViiON® Workstations: 100, 200, and 300 Series (014–001886)

Describes how to unpack and connect system components and optional devices. Explains how to power up the workstation and prepare for the operating system installation. Includes electrical and environmental specifications of the workstation, including the computer unit, monitor, keyboard, and mouse. Describes the user functions of the System Control Monitor (SCM).

Explains how to replace mouse, keyboard, monitor, memory modules, system board assembly, power supply, SCSI bus fuse, fan assembly, and speaker assembly components.

Using the AViiON® System Control Monitor (SCM) (014-001802)

Describes how to use the firmware monitor program to start software, change configuration parameters, and debug your own (non-DG) operating systems.

Using AViiON® System Diagnostics (014-001863)

Describes using menu-based diagnostic utilities to perform the following tasks: run a system acceptance test that verifies correct hardware installation; test terminal lines or graphics displays; check functions of graphics keyboard and mouse; test for faults in LAN connections; and format cartridge tapes and diskettes.

Hardware Manuals — 100, 200, and 300 Series Systems

Technical Notice for AViiON® 200D Series Stations: Programming System Control and I/O Registers (014–001880), used with AViiON® 300 and 400 Series Stations: Programming System Control and I/O Registers (014–001800)

Describes the system board architecture and how to program the system board, including the monochrome graphics subsystem, keyboard interface, serial and parallel interfaces, LAN interface, and SCSI controller.

MC88100 RISC Microprocessor User's Manual (014-001809)

Describes the Motorola 88100 Central Processing Unit (CPU), including the registers, addressing modes, timing, and assembly-language instruction set.

MC88200 Cache/Memory Management Unit User's Manual (014-001808)

Describes the Motorola 88200 Cache/Memory Management Unit (CMMU), including the CMMU registers, the cache and cache coherency, memory management and user/supervisor space, the Processor bus (Pbus) and the Memory bus (Mbus).

Ethernet / IEEE 802.3 Local Area Network Installation Guide (014-000793)

Explains how to install both the coaxial cable plant of an Ethernet local area network (LAN) and the transceivers that connect the network to a node communications controller.

Peripheral Manuals

Installing and Maintaining the CSS2/DC (014–002061) (a deskside subsystem), or Maintaining the CSS2 (014–002032) (a rackmount subsystem), or Installing and Operating the Model 10565 Peripheral Housing Unit (014–001810)

Describes how to unpack, install, and power up the CSS subsystem or Peripheral Housing Unit. Explains how to replace the power supply, line cord, and fan; and provides general instructions for replacing a drive. Lists electrical and environmental specifications of the subsystem. Installing and Operating the Multicapacity 1/4–Inch Cartridge Tape Drive (014–001953)

Describes how to unpack, configure, install, operate, and maintain the drive and tape cartridges. Also covers detailed technical information on the operation and maintenance of the drive and tape cartridges including mechanical operation, tape formatting, media recording and encoding, and SCSI configuration.

Installing and Operating Your 150–Megabyte 1/4–inch Cartridge Tape (014–001699)

Describes how to unpack, install, power up, and maintain the 150-megabyte, QIC (quarter-inch cartridge), half-height tape drive.

Installing and Operating Your Model 6538/6539 Half-Height Winchester Disk Drive (014-001722)

Describes how to unpack, install, power up, and maintain the 179-megabyte, half-height Winchester disk drive.

Installing and Operating Your Model 6552 Series CD–ROM Drive (014–001721)

Describes how to unpack, install, power up, and maintain the 600-megabyte, half-height CD-ROM drive.

Installing and Operating Your Model 6590 Series Cartridge Tape Drive (014–001701)

Describes how to unpack, install, power up, and maintain the 2.2-gigabyte, stand-alone cartridge tape drive.

Installing the 1–Gigabyte Fixed Disk Drive (014–002014)

Describes how to unpack, configure, mount, cable, and apply power to the drive. Covers both single-ended and differential SCSI configurations. Contains detailed technical specifications for the drive characteristics, power requirements, environmental tolerances, and physical dimensions.

Installing the Model 6586/6587 Magnetic Tape Streamer Unit (014-001692)

Describes how to unpack, inspect, install, and power up the unit. Explains how to install and remove reel-to-reel tapes.

Installing and Operating Your Model 6588/6589 Series Tape Drive (014-001759)

Describes how to unpack, inspect, install, and power up, and operate, run diagnostics on, and clean the unit. Explains how to install, remove, and care for reel-to-reel tapes.

Installing Model 6660 Series Fixed Disk Drive (014–001940)

Describes how to unpack, install, power up, and maintain the 332-megabyte, half-height Winchester disk drive.

Installing Your Model 6554/6555 Series Disk Drive (014-001702)

Describes how to unpack, install, power up, and maintain the 662-megabyte, full-height Winchester disk drive.

Installing the Model 6562/6563-Series Diskette Drive (014-001921)

Describes how to unpack, install, power up, and maintain the 1.44-megabyte, 5.25-inch and 1.2-megabyte, 3.5-inch half-height diskette drives (with SCSI adapter board).

Operating and Maintaining Your Model 6627 Series Magneto-Optical Disk Drive (014-001942)

Describes the drive operations, which include applying power to the drive, and inserting, ejecting, and write-protecting cartridges. Also describes the drive and cartridge maintenance, which includes the care and handling of the drive, and the care, handling, storage, and shipping of cartridges. Contains detailed technical specifications on the drive and cartridges, and details how to maximize drive performance.

AViiON 400, 3000, and 4000 Series Systems

Setting Up, Starting, Expanding, and Maintaining AViiON® Computer Systems: 400, 3000, and 4000 Series (014–002083)

Describes how to unpack and connect system components and optional devices. Explains how to power the computer systems up and down. Describes how to add or replace mass-storage devices, memory modules, and other option boards, and how to remove and replace the power supply, fan assembly, and system board. Describes how to use the System Control Monitor (SCM) commands and menus to boot software, control the system environment, and debug programs.

NOTE: For information on VMEbus options, refer to Setting Up and Installing VMEbus Options in AViiON® Systems (014–001867).

Using the AViiON® System Control Monitor (SCM) (014-001802)

Describes how to use the firmware monitor program to start software, change configuration parameters, and debug your own (non-DG) operating systems.

Using AViiON® System Diagnostics (014–001863)

Describes using menu-based diagnostic utilities to perform the following tasks: run a system acceptance test that verifies correct hardware installation; test terminal lines or graphics displays; check functions of graphics keyboard and mouse; test for faults in LAN connections; and format cartridge tapes and diskettes.

AViiON® 300 and 400 Series Stations: Programming System Control and I/O Registers (014–001800)

Describes the system board architecture and how to program the system board, including the monochrome and color graphics subsystems, keyboard interface, serial and parallel interfaces, LAN interface, and SCSI.

MC88100 RISC Microprocessor User's Manual (014-001809)

Describes the Motorola 88100 Central Processing Unit (CPU), including the registers, addressing modes, timing, and assembly-language instruction set.

MC88200 Cache / Memory Management Unit User's Manual (014-001808)

Describes the Motorola 88200 Cache/Memory Management Unit (CMMU), including the CMMU registers, the cache and cache coherency, memory management and user/supervisor space, the Processor bus (Pbus) and the Memory bus (Mbus).

Ethernet / IEEE 802.3 Local Area Network Installation Guide (014-000793)

Explains how to install both the coaxial cable plant of an Ethernet local area network (LAN) and the transceivers that connect the network to a node communication controller.

Manuals for VMEbus Hardware

Setting Up and Installing VMEbus Options in AViiON® Systems (014–001867)

Describes how to jumper VMEbus controllers to operate in an AViiON environment. Explains how to install and remove the controller boards in the system's VMEbus card cage, and how to jumper the VMEbus printed circuit backplane (backpanel) when necessary. Also supplies instructions for connecting external devices to the controller boards.

This is the primary manual for configuring, installing, removing, and connecting VMEbus options in AViiON systems with two VME-board slots.

Technical Notice: Setting Up and Installing VME–Distributed Token Ring Controllers (VTRC) (014–002080)

Provides jumper settings, cable identifications, pinouts, and installation information. Used in conjunction with Configuring the VME Token Ring Controller (VTRC) for AViiON® Systems. Supplements Expanding AViiON® 5000 Series Systems and Installing VMEbus Options in AViiON® Systems. Configuring the VME Token Ring Controller (VTRC) for AViiON® Systems (014–002016)

Explains how to modify the jumper configurations of the VME Token Ring Controller for AViiON systems.

DG/Token Ring Local Area Network Installation Guide (014–001730)

Explains how to install token-ring network hardware with twisted-pair wiring that connects nodes and Trunk Access Units (TAUs).

HPS Downloadable Cluster Controller Installation Guide (014-001814)

Describes how to install the HPS Downloadable Cluster Controller hardware.

This is the primary manual for configuring, installing, removing, and connecting cluster controllers in AViiON systems. The manuals that follow in this section offer additional information on host adapters and cluster controllers.

HPS Application Installation Manual (069–000348) VDA/255 HPS Application Installation User Guide (014–002048)

The HPS Application Installation Manual contains information about transferring software to VAC/16 asynchronous multiplexors and VDA/128 host adapters. The VDA/255 manual contains information about transferring software to VAC/16 asynchronous multiplexors and VDA/255 host adapters.

HPS Cluster Controller Download Package User Manual (069–000361)

Contains information about transferring code from the host computer to HPS cluster controllers that are managed by a VDA host adapter.

Model 030 Cluster Controller Technical Manual (014-002047)

Contains information about installing, programming, and operating Model 030 VMEbus-distributed cluster controllers (VDC8P, VDC/16).

HPS Diagnostic Application User Manual (069–000349)

Contains asynchronous controller and host adapter information about the interface provided by the diagnostic application software for the host system.

HPS Downloadable Cluster Controller Technical Manual (014–001813)

Contains information about installing, programming, and operating the Model 020 HPS Downloadable Cluster Controller hardware.

VDA/255 Host Adapter Technical Manual (014-002049)

Contains information about programming and operating the VDA/255 host adapter software.

HPS VMEbus Host Adapters Technical Manual (014–001815)

Contains information about installing, programming, and operating the HPS VMEbus Host Adapter (VDA/128) hardware.

HPS VMEbus Multiplexor (HPS-6236/6237) Technical Manual (014-001817)

Contains information about installing and operating the HPS VMEbus Multiplexor (VAC/16) hardware.

HPS Terminal Control Software, Version 03A User's Manual (069–000347)

Contains information about the interface provided by the terminal controller software for the host system. This interface allows access to the asynchronous communication channels of Data General's VAC/16 controller and host adapter boards with their cluster controllers.

V/Ethernet 3207 Hawk Local Area Network Controller for Ethernet User's Guide (014–001818)

Contains information about programming and installing the V/Ethernet 3207 Hawk Local Area Network Controller (VLC).

VMEbus Data Communications Processor (DCP-8820) Technical Manual (014-001816)

Contains information about installing the VMEbus Synchronous Data Communications Processor (VSC/3).

Peripheral Manuals

Installing and Maintaining the CSS2/DC (014–002061) (a deskside subsystem), or Maintaining the CSS2 (014–002032) (a rackmount subsystem), or Installing and Operating the Model 10565 Peripheral Housing Unit (014–001810)

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AViiON 5000, 6000, 7000, and 8000 Series Systems

Setting Up and Starting AViiON® 5000 Series Systems (014-001806)

Describes how to connect and configure system components and optional devices. Explains how to power up the AViiON 5000 series system and prepare for the operating system installation. Includes electrical, technical and environmental specifications for the computer unit.

Expanding the AViiON® 5000 Series System (014-001850)

Explains how to open and close the computer, plan a configuration, and install add-on boards and mass-storage drives. Includes a description of the computer subassemblies.

Starting AViiON® 6000 Series Systems (014–001819)

Describes the basic AViiON 6000 series computer system, hardware components, and maximum configurations. Explains how to power up the computer unit and respond to common power-up problems. Includes electrical, technical and environmental specifications for the computer unit.

Notice: AViiON® 7000 and AViiON® 8000 Series System Documentation (014-002092)

Identifies the AViiON documentation that supports AViiON 7000 series and AViiON 8000 series systems.

Using the AViiON® System Control Monitor (SCM) (014–001802)

Describes how to use the firmware monitor program to start software, change configuration parameters, and debug your own (non-DG) operating systems.

Using AViiON® System Diagnostics (014–001863)

Describes using menu-based diagnostic utilities to run a system acceptance test that verifies correct hardware installation; to test terminal lines or graphics displays; to check functions of graphics keyboard and mouse; to test for faults in LAN connections; and to format cartridge tapes and diskettes.

AViiON® 5000 and 6000 Series Systems: Programming System Control and I/O Registers (014–001805)

Describes the system board architecture and how to program the system board, including the serial and parallel interfaces, the VMEbus, and the associated I/O.

MC88100 RISC Microprocessor User's Manual (014-001809)

Describes the Motorola 88100 Central Processing Unit (CPU), including the registers, addressing modes, internal and bus timing, and assembly-language instruction set.

MC88200 Cache / Memory Management Unit User's Manual (014–001808)

Describes the Motorola 88200 Cache/Memory Management Unit (CMMU), including the CMMU registers, the cache and cache coherency, memory management and user/supervisor space, the Processor bus (Pbus) and the Memory bus (Mbus).

Technical Summary: 64K–Byte Cache/Memory Management Unit (CMMU) (014–002084)

Provides information that, in conjunction with the MC88200 User's Manual, describes the Motorola 88204 Cache/Memory Management Unit (CMMU)

Ethernet/IEEE 802.3 Local Area Network Installation Guide (014-000793)

Explains how to install both the coaxial cable plant of an Ethernet local area network (LAN) and the transceivers that connect the network to a node communication controller.

Manuals for VMEbus Hardware

The primary manual for configuring, installing, removing, and connecting VDA host adapters in 5000-series systems is *Expanding the AViiON*® 5000 Series System, described earlier. (If you care about 6000-series adapters, please note that boards for these are not customer-installable.)

Technical Notice: Setting Up and Installing VME–Distributed Token Ring Controllers (VTRC) (014–002080)

Provides jumper settings, cable identifications, pinouts, and installation information. Used in conjunction with *Configuring the VME Token Ring Controller (VTRC) for AViiON® Systems.* Supplements *Expanding AViiON®* 5000 Series Systems and Installing VMEbus Options in AViiON® Systems.

Configuring the VME Token Ring Controller (VTRC) for AViiON® Systems (014–002016)

Explains how to modify the jumper configurations of the VME Token Ring Controller for AViiON systems.

Hardware Manuals - 5000, 6000, 7000, and 8000 Series Systems

DG/Token Ring Local Area Network Installation Guide (014-001730)

Explains how to install token-ring network hardware with twisted-pair wiring that connects nodes and Trunk Access Units (TAUs).

HPS Downloadable Cluster Controller Installation Guide (014-001814)

Describes how to install the HPS Downloadable Cluster Controller hardware.

This is the primary manual for configuring, installing, removing, and connecting cluster controllers in AViiON systems. The manuals that follow in this section offer additional information on host adapters and cluster controllers.

HPS Application Installation Manual (069–000348) VDA/255 HPS Application Installation User Guide (014–002048)

The HPS Application Installation Manual contains information about transferring software to VAC/16 asynchronous multiplexors and VDA/128 host adapters. The VDA/255 manual contains information about transferring software to VAC/16 asynchronous multiplexors and VDA/255 host adapters.

HPS Cluster Controller Download Package User Manual (069–000361)

Contains information about transferring code from the host computer to HPS cluster controllers managed by a VDA host adapter.

Model 030 Cluster Controller Technical Manual (014-002047)

Contains information about installing, programming, and operating Model 030 VMEbus-distributed cluster controllers (VDC8P, VDC/16).

HPS Downloadable Cluster Controller Technical Manual (014-001813)

Contains information about installing, programming, and operating the Model 020 HPS Downloadable Cluster Controller hardware.

HPS Diagnostic Application User Manual (069–000349)

Contains asynchronous controller and host adapter information about the interface provided by the Diagnostic Application software for the host system.

VDA/255 Host Adapter Technical Manual (014-002049)

Contains information about programming and operating the VDA/255 host adapter software.

HPS VMEbus Host Adapters Technical Manual (014–001815)

Contains information about installing, programming, and operating the HPS VMEbus host adapter (VDA/128) hardware.

HPS VMEbus Multiplexor (HPS-6236/6237) Technical Manual (014-001817)

Contains information about installing and operating the HPS VMEbus Multiplexor (VAC/16) hardware.

HPS Terminal Control Software, Version 03A User's Manual (069-000347)

Contains information about the interface provided by the Terminal Controller software for the host system. This interface allows access to the asynchronous communication channels of Data General's VAC/16 controller and host adapter boards with their cluster controllers.

V/Ethernet 3207 Hawk Local Area Network Controller for Ethernet User's Guide (014–001818)

Contains information about programming and installing the V/Ethernet 3207 Hawk Local Area Network Controller (VLC).

Ciprico Product Specification Rimfire 3500 (014-001756)

Describes board layout and technical details on the VMEbus SCSI adapter board.

VMEbus Data Communications Processor (DCP-8820) Technical Manual (014-001816)

Contains information about installing the VMEbus Synchronous Data Communications Processor (VSC/4).

Peripheral Manuals

Operating the High-Availability Disk-Array Subsystem (014-002059)

Describes how to set up and configure the high-availability disk array subsystem so its disks are available to the DG/UX system running on the AViiON host computer. It also describes how to recover from disk-array failures.

Hardware Manuals — 5000, 6000, 7000, and 8000 Series Systems

Information Update for High-Availability Disk-Array Subsystems (014-002096)

NOTE: This supplement applies only to DG/UX systems running Release 5.40.

Supplements the information in *Operating the High-Availability Disk-Array Subsystem* (014-002059). Describes how to set up a physical disk in the high-availability disk-array subsystem as the DG/UX, Release 5.40, system disk (DG/UX disk boot device). It also tells how to start the Gridman utility on a computer running DG/UX, Release 5.40, and how to recover from a failure in a dual-port, disk-array subsystem configuration.

Expanding and Maintaining the High–Availability Disk–Array Subsystem (014–002060)

Describes how to add and replace disk drive modules and cartridge tape drive module, and how to replace fan modules in the high-availability disk-array subsystem.

Information Update for CSS2 Series Disk-Array Subsystems (014-002110)

Supplements the information in CSS2 and CSS2/DC Disk-Array Subsystem Supplement (014-002093). Describes how to set up a physical disk in a CSS2 series disk-array subsystem as the DG/UX, Release 5.40, system disk (DG/UX disk boot device). It also tells how to start the Gridman utility on a computer running DG/UX, Release 5.40.

Installing and Maintaining the CSS2/DC (014–002061) (a deskside subsystem), or Maintaining the CSS2 (014–002032) (a rackmount subsystem), or Installing and Operating the Model 10565 Peripheral Housing Unit (014–001810)

Describes how to unpack, install, and power up the CSS or PHU subsystem. Explains how to replace the power supply, line cord, and fan; and provides general instructions for replacing a drive. Lists electrical and environmental specifications of the subsystem.

CSS2 and CSS2/DC Disk-Array Subsystem Supplement (014-002093)

Describes how to operate the CSS2 series disk-array subsystems. Introduces the hardware and explains how to create, monitor, and reconfigure physical disks. Describes how to restore data on a replacement disk (rebuild) and how to recover from other component failures. Explains how to install microcode and lists error messages you may receive from the subsystem. This manual supplements the information in *Installing and Maintaining the CSS2/DC* and *Maintaining the CSS2*. Installing and Operating the Multicapacity 1/4–Inch Cartridge Tape Drive (014–001953)

Describes how to unpack, configure, install, operate, and maintain the drive and the tape cartridges. Also covers detailed technical information on the operation and maintenance of the drive and tape cartridges including mechanical operation, tape formatting, media recording and encoding, and SCSI configuration.

Installing and Operating Your 150–Megabyte 1/4–inch Cartridge Tape (014–001699)

Describes how to unpack, install, power up, and maintain the 150-megabyte, QIC (quarter-inch cartridge) half-height tape drive.

Installing and Operating Your Model 6538/6539 Half-Height Winchester Disk Drive (014-001722)

Describes how to unpack, install, power up, and maintain the 179-megabyte, half-height Winchester disk drive.

Installing and Operating Your Model 6552 Series CD-ROM Drive (014-001721)

Describes how to unpack, install, power up, and maintain the 600–megabyte, half-height CD–ROM drive.

Installing and Operating Your Model 6590 Series Cartridge Tape Drive (014–001701)

Describes how to unpack, install, power up, and maintain the 2.2-gigabyte, stand-alone cartridge tape drive.

Installing the 1–Gigabyte Fixed Disk Drive (014–002014)

Describes how to unpack, configure, mount, cable, and apply power to the drive. Covers both single-ended and differential SCSI configurations. Contains detailed technical specifications for the drive characteristics, power requirements, environmental tolerances, and physical dimensions.

Installing the Model 6586/6587 Magnetic Tape Streamer Unit (014-001692)

Describes how to unpack, inspect, install, and power up the unit. Explains how to install and remove reel-to-reel tapes.

Installing and Operating Your Model 6588/6589 Series Tape Drive (014–001759)

Describes how to unpack, inspect, install, and power up, and operate, run diagnostics on, and clean the unit. Explains how to install, remove, and care for reel-to-reel tapes.

Hardware Manuals - 5000, 6000, 7000, and 8000 Series Systems

Installing Model 6660 Series Fixed Disk Drive (014-001940)

Describes how to unpack, install, power up, and maintain the 332-megabyte, half-height Winchester disk drive.

Installing Your Model 6554/6555 Series Disk Drive (014–001702)

Describes how to unpack, install, power up, and maintain the 662–megabyte, full–height Winchester disk drive.

Installing the Model 6562/6563–Series Diskette Drive (014–001921)

Describes how to unpack, install, power up, and maintain the 1.44-megabyte, 5.25-inch and 1.2-megabyte, 3.5-inch half-height diskette drives (with SCSI adapter board).

Operating and Maintaining Your Model 6627 Series Magneto-Optical Disk Drive (014-001942)

Describes the drive operations, which include applying power to the drive, and inserting, ejecting, and write-protecting cartridges. Also describes the drive and cartridge maintenance, which includes the care and handling of the drive, and the care, handling, storage, and shipping of cartridges. Contains detailed technical specifications on the drive and cartridges, and details how to maximize drive performance.

Software Manuals Organized by Category

This section describes manuals for software that runs on AViiON systems. Use this section for reference after your hardware and operating system are up and running.

Software manuals appear by topic: UNIX and DG/UX operating systems, applications development, communications and networking, Documenter's Toolkit, standards, and manuals from other manufacturers.

To order additional manuals, please use the TIPS form included at the back of this manual.

UNIX and DG/UX Operating System Manuals

Learning the UNIX® Operating System (069-701042)

Helps beginners learn UNIX fundamentals using step-by-step tutorials. Published by O'Reilly and Associates. Available from Data General via ordering number 069-701042.

Initially Installing and Setting up the DG/UX[™] System on a Stand–Alone AViiON® Workstation (069–000520).

For all workstations (AViiON 100, AViiON 200, AViiON 300, and AViiON 400 series) that will not be connected to an Ethernet-based LAN, this provides step-by-step instructions to install the DG/UX operating system. For a client or server system on an Ethernet-based LAN, read 069-000549, described next, instead. The *Initially Installing* guides are designed for people unfamiliar with the UNIX operating system.

Initially Installing and Setting up the DG/UX[™] System on AViiON® Servers with Clients (069–00549)

For any system server or client system that will run DG/UX, this provides step-by-step instructions to install the DG/UX operating system. This manual explains how to set up a server, diskless OS client, and X terminal client.

If your system also has asynchronous terminal line controllers to support local terminal users, also read *Initially Installing and Setting up the* DG/UX^{TM} System on a Multiuser AViiON® Computer (069–00562).

Software Manuals — UNIX and DG/UX

The *Initially Installing* guides are designed for people unfamiliar with the UNIX operating system.

Initially Installing and Setting up the DG/UX[™] System on a Multiuser AViiON® Computer (069–000562)

For any AViiON 400 or larger system with asynchronous terminal line controllers that you will use in a traditional timesharing environment, this provides step—by—step instructions for installing the DG/UX operating system. It explains how to install DG/UX and set up the terminal controllers to support a community of local terminal users.

The *Initially Installing* guides are designed for people unfamiliar with the UNIX operating system.

Installing and Managing the DG/UX[™] System (069–701052)

Describes how to install and manage the DG/UX operating system on AViiON hosts that will run as stand-alone, server, or client systems. Explains how to upgrade to a new revision of DG/UX. Provides additional information to the *Initially Installing* guides. Intended for system administrators who are familiar with the UNIX operating system.

Programming in the DG/UX[™] System Application Environment (093–701076)

Discusses libraries, interprocess communications, programming interface, common object file format, and other programming-related topics.

Porting Applications to the DG/UX^{TM} System (069–701059)

Describes how to port UNIX application programs to the DG/UX system.

Writing a Device Driver for the DG/UX[™] System (093–701053)

Describes how to write a device driver for a DG/UX system running on an AViiON computer. Describes the drivers written to address specific devices or adapters that manage secondary-bus access to specific devices.

Using the DG/UXTM Editors (069–701036)

Describes the text editors vi and ed, the batch editor sed, and the command line editor editread.

Software Manuals — UNIX and DG/UX

Using the DG/UX[™] Software Development Tools (093–701078)

Discusses programming support tools (**awk**, **nawk**, **lex**, **yacc**, **ld**, **lint**, and **as**), archiving, the C language, and SCCS.

Using the DG/UX^{TM} System (069–701035)

Describes the DG/UX system and its major features, including the shell (the C and Bourne shells), typical user commands, the file system, and communications facilities such as **mailx**.

Using the DG/UX[™] Kernel Debugger (093–701075)

Explains how to use the DG/UX kernel debugger to analyze the state of the kernel's internal data structures and the state of the underlying hardware's registers and memory.

Programmer's Reference for the DG/UX™ System (093-701055 and 093-701056)

Alphabetical listing of manual pages for programming commands on the DG/UX operating system. This two-volume set includes information on system calls, file formats, subroutines, and libraries.

System Manager's Reference for the DG/UX[™] System (093–701050)

Contains an alphabetical listing of manual pages for commands relating to system administration or operation.

User's Reference for the DG/UX[™] System (093–701054)

Contains an alphabetical listing of manual pages for commands relating to general system operation.

Applications Development Manuals

C: A Reference Manual (069–100226)

Describes lexical structure, the preprocessor, declarations, types, expressions, statements, functions, programs, and the runtime libraries.

Programmer's Reference for the AView Graphics Library (093-700717)

Explains how to write graphics programs for AViiON workstations.

X Window System[™] User's Guide, OSF/Motif[™] Edition (069–100229)

Describes window concepts, the application programs (clients) commonly distributed with X, and how you can expect programs to operate with the OSF/Motif interface.

Communications and Networking Manuals

NetWare® for AViiON® Series Systems Installation (069-000488)

Explains how to plan a NetWare® network, install NetWare for AViiON Systems, configure client workstations, and set up user accounts.

NetWare® for AViiON® Series Systems Concepts (069-000483)

Explains, alphabetically by topic, NetWare terms and concepts. Topics include directory structure and access, communication protocols, printing, and security.

NetWare® for AViiON® Series Systems Utilities (069-000484)

Describes, alphabetically by name, the NetWare command line and menu-driven utilities.

NetWare® for AViiON® Series Systems System Administration (069–000487)

Explains NetWare management utilities like SCONSOLE, HYBRID, and utilities for printing services.

NetWare® for AViiON® Series Systems System Messages (069–000485)

Lists and explains, alphabetically by message, the NetWare status and error messages users might receive, and suggests corrective action.

NetWare® for AViiON® Series Systems User Book (069-000486)

For users of NetWare, explains basic network concepts and offers guidelines for working on a network.

Managing NFS® and Its Facilities on the DG/UX[™] System (093-701049)

Shows how to install, manage, and use the DG/UX ONC[™]/NFS® product. Contains information on the Network File System (NFS), the Yellow Pages^{™1} (YP), Remote Procedure Calls (RPC), and External Data Representation (XDR).

¹ LEGAL NOTICE TO USERS: Yellow Pages is a registered trademark in the United Kingdom of British Telecommunications plc, and may also be a trademark of various telephone companies around the world. Sun will be revising future versions of software and documentation to remove references to Yellow Pages.

Communications and Networking Manuals

Setting Up and Managing the OSI/Platform for AViiON® Systems (093–000738)

Tells how to install, configure, manage, and troubleshoot the OSI/Platform (UNIX networking platform). The OSI/Platform supports FTAM and VTP software.

Using FTAM for AViiON® Systems (093-000735)

Explains how to use FTAM (File Transfer, Access, and Management protocol) to copy, move, list, and delete files. FTAM runs on the OSI/Platform. Installing and configuring VTP is explained in *Setting Up and Managing the* OSI/Platform for AViiON® Systems, above.

Using VTP for AViiON® Systems (093-000736)

Explains how to use the VTP (ISO Virtual Terminal Protocol) to log on a different computer system. VTP runs on the OSI/Platform. Installing and configuring VTP is explained in *Setting Up and Managing the OSI/Platform* for AViiON® Systems, above.

Setting Up and Managing PAD on the DG/UX[™] System (093–701073)

Tells you how to set up and manage the Packet Assembler/Disassembler (PAD) for AViiON systems packages. Also contains manual pages for the PAD package.

Using PAD on the DG/UXTM System (069–701079)

Describes the user interface to the X.25 Packet Assembler/Disassembler (PAD) for AViiON Systems package.

STREAMS Primer for the DG/UX[™] System (069–701033)

Defines STREAMS, a set of tools for developing DG/UX system communications services; explains how to build a stream; and discusses user-level and kernel-level functions.

STREAMS Programmer's Guide for the DG/UX[™] System (069–701034)

Describes the development methods and design philosophy of STREAMS.

Using API LU0, 1, 2, 3 for AViiON® Systems (093-000679)

Explains how to use the application program interface (API) for Logical Unit (LU) types 0, 1, 2, and 3 of IBM's System Network Architecture (SNA).

Using API LU6.2 for AViiON® Systems (093-000680)

Explains how to use the application program interface (API) for Logical Unit (LU) type 6.2 of IBM's System Network Architecture (SNA).

Using SNA 3270 for AViiON® Systems (093-000677)

Explains how to use the 3278 display and 3287 printer emulation capabilities within a multiuser environment.

Using SNA for AViiON® Systems (093-000676)

Explains how to activate the SNA link to the host, establish node processes, and create configurations.

Using SNA RJE for AViiON® Systems (093-000678)

Explains how to use the 3776 emulation capabilities to submit jobs to and receive output from the host.

Setting Up and Managing TCP/IP on the DG/UX[™] System (093–701051)

Explains how to prepare for the installation of Data General's TCP/IP (DG/UX) package on AViiON computer systems. Contains information on tailoring the software for your site, managing the system, and troubleshooting system problems.

Programming with TCP/IP on the DG/UX^{TM} System (093–701024)

Describes how to use the socket system calls to access TCP, UDP, and IP protocol software.

Using TCP/IP on the DG/UXTM System(093-701023)

Introduces Data General's implementation of the TCP/IP family of protocols and describes how to use the package.

Communications and Networking Manuals

Setting Up and Managing X.25 on the DG/UX[™] System (093–701071)

This manual is for X.25 wide-area-network system administrators. It describes how to set up and manage the X.25 for AViiON systems software. It also contains manual pages for the X.25 package.

Programmer's Reference for the X.25 Provider Interface on the DG/UX^{TM} System (093–701082)

Describes how to use the data structures and messages of the X.25 Provider Interface in application programs.

Installing LAN Manager for AViiON® Systems (093-000730)

Describes how to install and configure LAN Manager for AViiON® Systems software. LAN Manager for AViiON® Systems (LM/AV) is a set of client/server software programs that integrates client workstations (PCs using either the MS-DOS® or OS/2® operating systems) with AViiON servers running DG/UX in a local area network. This book describes how to configure and install the LM/AV server and client software.

Getting Started with LAN Manager for AViiON® Systems (093-000728)

Provides an overview of the procedures and tasks for setting up and administering a network using LAN Manager. It provides an overview of the following tasks: installing the hardware, the server software, and an administrative client; selecting an administrative program and security mode; setting up the server; installing the remaining clients; choosing user access methods; and providing instructions for users.

Administering LAN Manager for AViiON® Systems (093-000727)

Explains how to set up, configure, and administer a LAN server running the LAN Manager Server program.

LAN Manager for AViiON® Systems Troubleshooting and Command Reference (093-000729)

Describes how to track events on the LAN, solve problems that may occur, interpret an error message, and use the **net** commands from the server.

LAN Manager for AViiON® Systems Programmer's Reference (093-000726)

Describes the functions of the LAN Manager Applications Program Interface (API). This reference manual enables a programmer to develop programs that interact with, and control network operations and resources through, a well-defined interface for higher level languages such as the C programming language.

Communications and Networking Manuals

Using LAN Manager for AViiON® Systems (093-000725)

Introduces basic networking terms and concepts, and provides procedures for accessing and using the resources of an LM/AV Server.

Installing DG/NETBEUI for AViiON® Systems (093-000724)

This guide tells you how to install and start the DG/NETBEUI transport.

NetBIOS Virtual Terminal User's Guide (093-000745)

This manual describes how the NetBIOS virtual terminal emulation (NBVT) allows you to use your PC as a terminal to log in to an AViiON® series system host. It is for end users who want to run AViiON® series systems applications and PC applications on one workstation.

Information Update: LP Spooler Function for LAN Manager for AViiON® Systems (093–000757)

This information update describes how to use the LP spooler files in DG/UX™.

Documenter's Tool Kit Manuals and Standards Manuals

Documenter's Tool Kit Manuals

Using the Documenter's Tool Kit on the DG/UX[™] System (069–701039)

Provides a series of tutorials about the tools included in the Documenter's Tool Kit package. Describes the **mm** and **mv** macro instruction packages; the **tbl**, **eqn**, **pic**, and **grap** preprocessors; the tools **checkmm**, **diffmk**, **hyphen**, **ndx**, and **subj**, and the **nroff/troff** formatter.

Documenter's Tool Kit Technical Summary for the DG/UX[™] System (069–701041)

Provides technical details about the tools supplied with the Documenter's Tool Kit; specifically, the **mm** macroinstruction package, the **tbl** table preprocessor, and the **nroff/troff** formatter.

Standards Manuals

88 open Binary Compatibility Standard (069–701043)

Describes the 88open Binary Compatibility Standard based on the Motorola MC88100 and future related processors. The BCS is a set of standards to adhere to when developing operating systems or drivers. The BCS promotes portability of applications across systems.

88open Object Compatibility Standard (069-701044)

Specifies an Object Compatibility Standard (OCS) for operating systems based on Motorola MC88100 as well as future related microprocessors. Provides for portability of application-level software at the linkable level by specifying interfaces between the object file and the operating system libraries.

POSIX.1 Conformance Document (069–701078)

Gives definitions and general requirements for conforming to the IEEE POSIX.1 standard.

IEEE Standard Portable Operating System Interface for Computer Environments (POSIX.1) (069–701045)

Specifies a POSIX standard.

Other Manufacturers' Documents

mPD72120 Advanced Graphics Display Controller User's Manual

Describes the mPD72120 monochrome graphics controller and how to program it. This document is available from NEC Electronics, Inc.

AIC-6250 High-Performance SCSI Protocol Chip

Describes the AIC-6250 SCSI controller and how to program it. This document is available from Adaptec, Inc.

AM7990 Local Area Network Controller (LANCE) Technical Manual

Describes the AM 7990 LAN controller and how to program it. This document is available from Advanced Micro Devices, Inc.

Brooktree® Product Databook

Includes information on the Bt457 RAMDAC and the Bt458 RAMDAC. This document is available from Brooktree Corporation.

Memory Products Databook

Includes a datasheet on the MK48T02B 2K x 8 Zeropower™/Timekeeper™ RAM. This document is available from SGS-Thomson Microelectronics.

SCC2692 Dual Asynchronous Receiver Transmitter (DUART) Product Specification

Describes the SCC2692 DUART and how to program it. This document is available from Signetics, Inc.

SCN2661 Enhanced Programmable Communications Interface (EPCI) Product Specification

Describes the SCN2661 universal synchronous/asynchronous data communications controller and how to program it. This document is available from Signetics, Inc.

SCN2681 Dual Asynchronous Receiver Transmitter (DUART) Product Specification

Describes the SCN2681 DUART and how to program it. This document is available from Signetics, Inc.

Other Manufacturers' Manuals

The VMEbus Specification (Motorola document number HB212)

Describes Motorola's Versa Modula Europa bus (VMEbus), and how to program using the VMEbus. This document is available from Motorola Corporation.

Z8536 CIO Counter / Timer and Parallel I/O Unit Technical Manual

Describes the Z8536 CIO and how to program it. This document is available from Zilog, Inc.

End of Manual

TIPS ORDERING PROCEDURES

TO ORDER

- 1. An order can be placed with the TIPS group in two ways:
 - a) MAIL ORDER Use the order form on the opposite page and fill in all requested information. Be sure to include shipping charges and local sales tax. If applicable, write in your tax exempt number in the space provided on the order form.

Send your order form with payment to:

Data General Corporation ATTN: Educational Services/TIPS G155 4400 Computer Drive Westboro, MA 01581-9973

b) TELEPHONE - Call TIPS at (508) 870-1600 for all orders that will be charged by credit card or paid for by purchase orders over \$50.00. Operators are available from 8:30 AM to 5:00 PM EST.

METHOD OF PAYMENT

- 2. As a customer, you have several payment options:
 - a) Purchase Order Minimum of \$50. If ordering by mail, a hard copy of the purchase order must accompany order.
 - b) Check or Money Order Make payable to Data General Corporation.
 - c) Credit Card A minimum order of \$20 is required for Mastercard or Visa orders.

SHIPPING

3. To determine the charge for UPS shipping and handling, check the total quantity of units in your order and refer to the following chart:

Total Quantity	Shipping & Handling Charge
1–4 Units	\$5.00
5–10 Units	\$8.00
11–40 Units	\$10.00
41–200 Units	\$30.00
Over 200 Units	\$100.00

If overnight or second day shipment is desired, this information should be indicated on the order form. A separate charge will be determined at time of shipment and added to your bill.

VOLUME DISCOUNTS

4. The TIPS discount schedule is based upon the total value of the order.

Order Amount	Discount
\$1-\$149.99	0%
\$150-\$499.99	10%
Over \$500	20%

TERMS AND CONDITIONS

5. Read the TIPS terms and conditions on the reverse side of the order form carefully. These must be adhered to at all times.

DELIVERY

6. Allow at least two weeks for delivery.

RETURNS

- 7. Items ordered through the TIPS catalog may not be returned for credit.
- 8. Order discrepancies must be reported within 15 days of shipment date. Contact your TIPS Administrator at (508) 870-1600 to notify the TIPS department of any problems.

INTERNATIONAL ORDERS

9. Customers outside of the United States must obtain documentation from their local Data General Subsidiary or Representative. Any TIPS orders received by Data General U.S. Headquarters will be forwarded to the appropriate DG Subsidiary or Representative for processing.

TIPS ORDER FORM

Mail To: Data General Corporation Attn: Educational Services/TIPS G155 4400 Computer Drive Westboro, MA 01581 - 9973

BILL TO:					mplete Only If Differen	t Address)
COMPANY NAME				(NAME		
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