Software Product Description

PRODUCT NAME: VAX 6000 Series Diagnostic Set   **SPD 33.55.01**

DESCRIPTION

The VAX 6000 Series Diagnostic Set is a package of programs and documentation that allows users to maintain VAX 6000 Series central processor units (CPUs), memory, and standard peripheral devices. The set consists of ROM-Based and loadable macrodiagnostic programs, which are required to fully support diagnosis of a VAX 6000 Series system.

The VAX 6000 Series systems are currently available in the following models: VAX 6000-2x0, VAX 6000-3x0, VAX 6000-4x0, VAX 6000-5x0, and VAX 6000-6x0 where x = 1 through 6, depending on the number of Processor modules on the system. For example, a VAX 6000-540 System would contain 4 of the Model 500 processors.

The heart of a VAX 6000 Series system is the XMI internal bus. CPUs, memory, I/O controllers, and adapters to the VAXBI I/O busses are connected to this XMI bus, and are referred to as XMI nodes. The system can contain one or more VAXBIs and peripheral device adapters and controllers reside there. They are referred to as VAXBI nodes.

XMI and VAXBI nodes have extensive self-tests built in (primarily ROM-Based), and these are automatically executed when the system is initialized. This minimizes the number of loadable macrodiagnostics required for maintenance of VAX 6000 Series systems. In addition, most XMI nodes and some VAXBI nodes contain user-invokable ROM-Based Diagnostics that are accessible through the system console.

The UNIBUS is supported on VAX 6000-2x0, 3x0, and 4x0 Series systems to a limited extent, and a small number of existing UNIBUS peripheral devices can be used. This requires loadable macrodiagnostics to be used for maintenance of these devices.

Diagnostic Components

ROM-Based Diagnostic Monitor (RBD Monitor) — Program that resides in ROM on various XMI and VAXBI nodes and supplies diagnostic and operator services (i.e., starting, control, error messages) for the ROM-Based Diagnostics accessible from the system console.

ROM-Based Diagnostics (RBDs) — Diagnostic programs that reside in ROM on various XMI and VAXBI nodes and are invokable on Power-up, Reset, and/or by the operator via the RBD Monitor. These diagnostics are installed and runnable on all VAX 6000 Series systems and a license is NOT required to run them.

VAX Diagnostic Supervisor (VAX/DS) — Loadable program that supplies diagnostic and operator services (i.e., loading, starting, and control, error messages) for the loadable diagnostics. VAX/DS runs either in Standalone Mode (without the VMS Operating System) or On-line Mode (as a process under VMS).

VAX/DS Diagnostics — Loadable macrodiagnostics, consisting of exercisers, functional-level and logic-level tests, disk formatters, and autosizer that run under control of VAX/DS.

Table 1
VAX 6000 Series Diagnostic Program Levels

Level	Runtime Environment	Types of Programs
Level 4	RDB — Runs only in Standalone Mode on Power-up, reset, or RDB Monitor control	Functional and logic tests
Level 3	Runs under VAX/DS in Standalone Mode only	Exerciser, functional tests, and logic tests of CPU and peripheral devices
Level 2R	Runs under VAX/DS in On-line Mode only	Exercisers and functional tests of memory, peripheral devices
Level 2	Runs under VAX/DS in On-line or Standalone Modes	CPU Exercisers

HARDWARE REQUIREMENTS

Any valid VAX 6000 system configuration.

INSTALLATION

RDBs are already installed. For VAX/DS diagnostics, an optional Digital installation service is available for a time and materials charge.

OPTIONAL HARDWARE

None

SOFTWARE REQUIREMENTS

- VMS Operating System V5.4 - V5.5 is required when running L2R Diagnostics

OPTIONAL SOFTWARE

None

ORDERING INFORMATION

VAX 6000-200	Single-Use License	QX-K34AA-AA
VAX 6000-300	Single-Use License	QX-K34AB-AA
VAX 6000-400	Single-Use License	QX-K34AC-AA
VAX 6000-500	Single-Use License	QX-K33AA-AA
VAX 6000-600	Single-Use License	QX-K33AB-AA
VAX 6000-200 /300/400	Diagnostic Media /Documentation Kit	QZ-K34AA-HW
VAX 6000-500 /600	Diagnostic Media /Documentation Kit	QZ-K33AA-HW
VAX 6000-200 /300/400	Diagnostic Update Service	QY-K34AA-AW
VAX 6000-500 /600	Diagnostic Update Service	QY-K33AA-AW

Licensed users of VAX Diagnostics can order the Annual Subscription Update Service at the prevailing rate for such updates. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated.

Miscellaneous Options

Maintenance Documentation Service (MDS) Microfiche Documentation Library

Each MDS Library includes:

Hardware Manuals, Illustrated Parts Breakdowns, Revision Matrix (VAX family only), Preventive Maintenance Manuals, Diagnostic Listings, DEC-O-LOG (FCO Synopsis), and FCOs (Field Change Orders).

MD-VAX-01	Maintenance Documentation and Diagnostic Listings for VAX systems (Library plus updates)
MD-VAX-D1	Maintenance Documentation for VAX systems (Library plus updates)
MD-VAX-L1	Diagnostic Listings for VAX systems (Library plus updates)
	DEC-O-LOG MICROFICHE
MD-MFDOL-R	Field Change Order notification service for all systems (initial subscription includes one year of updates)

SOFTWARE LICENSING

All single-use licensed software, including any subsequent updates purchased, is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions, which provide in part that the software and any part thereof may be used on only the single system on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the copyright notice and any proprietary notices on the software) only for use on such processor.

The Single-Use, end-user license is required for each processor to be self-maintained.

The license applies to the use of VAX/DS diagnostic media and the acquisition of documentation for VAX/DS Diagnostics and ROM-Based Diagnostics.

DISTRIBUTION MEDIA

The VAX 6000 Series Diagnostic Media Kit consists of a Compact Disc (CDROM), a TK50 Cartridge, and a 9-track 1600 BPI Magtape. These media contain all the same diagnostic software programs (for all VAX 6000 models), and the CDROM and TK50 can boot the VAX Diagnostic Supervisor (the 9-track Magtape is not bootable).

SOFTWARE WARRANTY

This software product is provided "AS IS" without any warranty of any kind, either express or implied.