# Software Product Description

PRODUCT NAME: VAX 8820/8830/8840 Diagnostic Set SPD 25.C7.00

#### **DESCRIPTION**

The VAX 8820/8830/8840 Diagnostic Set is a package of programs that allows users to maintain VAX 8820/8830/8840 systems. These diagnostics test the CPU, Memory and Peripheral devices. The package includes both micro and macro diagnostics.

#### Microdiagnostic Components

The microdiagnostic components detect and isolate solid faults at the module level within the CPUs and memory system. The microdiagnostic tests are controlled by the MICROMONITOR. The MICROMONITOR is built into the VAX Console software that is shipped with the system. The console provides the storage for the microdiagnostics tests. Microdiagnostics tests are organized into a bottom up test sequence. This sequence first tests the console then the instruction unit, execution unit, cache, and memory. Microdiagnostics are also used to test fault conditions on the NMI bus. All detected faults result in error typeouts that indicate the smallest set of modules to which the program can isolate a failure.

## Macrodiagnostic Components

The macrodiagnostics components provide fault detection and isolation within the VAX 8820-8840 CPUs and standard options.

VAX Diagnostic Supervisor (VDS) Supplies diagnostic operator services (i.e. loading, starting, and control) as a stand-alone controller (non-VMS) or as a process under VMS.

Diagnostics consist of exercisers, functional level and logic level tests that run under the control of VDS. Functional level tests run in stand-alone mode or with VMS. Repair level programs run only in stand-alone mode.

## HARDWARE REQUIREMENTS

Any valid VAX 8820/8830/8840 system configuration

#### **OPTIONAL HARDWARE**

None

#### **SOFTWARE REQUIREMENTS**

VMS Operating System recommended for optimum diagnostic capabilities.

#### **OPTIONAL SOFTWARE**

None

#### SOFTWARE INSTALLATION

Customer Installed

Optional DIGITAL Installation is available on a time and materials basis.

#### **SOFTWARE WARRANTY**

THIS SOFTWARE PRODUCT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED.

#### **ORDERING INFORMATION**

All single-use licensed software, including any subsequent updates purchased, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions, which provide in part that the software and any part thereof may be used on only the single CPU 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 CPU.

## VAX 8820/8830/8840 Diagnostic Program Levels

Level	Run-time Environment	Types of Programs
Level 2R	Runs under VDS in user mode only	Exercisers and functional tests of memory, peripheral devices
Level 2	Runs under VDS in user and stand-alone modes	Functional tests of CPU instructions set
Level 3	Runs under VDS in stand-alone mode only	Functional tests and logic tests of CPU and peripheral devices
Level 4	Runs in stand-alone mode without VDS	Functional and logic tests of CPU



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## VAX 8820/8830/8840 Diagnostic Set

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

The VAX 8820/8830/8840 Diagnostic Media Kit is available on TK50.

## VAX 8820/8830/8840 DIAGNOSTIC ORDERING INFORMATION

VAX 8820	VAX 8830	VAX 8840	
ZA201-UZ	ZA202-UZ	ZA203-UZ	DIAGNOSTIC LICENSE ONLY
ZA201-HW	ZA202-HW	ZA203-HW	MT/FL MEDIA/DOC KIT
ZA201-WW	ZA202-WW	ZA203-WW	ANNUAL SUBSC MT/FL

## **Update Options**

Licensed users of VAX Diagnostics may 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

MD-VAX	Maintenance Documentation and Diagnostic Listings for VAX Systems (Library Only)
MD-VAX-R	Subscription Update Service for MD-VAX
MD-VAX-D	Maintenance Documentation for VAX systems (Library Only)
MD-VAX-DR	Subscription Update Service for MD-VAX-D
MD-VAX-L	Diagnostic Listings for VAX systems (Library Only)
MD-VAX-LR	Subscription Update Service for MD-VAX-L
DEC-O-LOG	Microfiche
MD-MFDOL-00	Field Change Order notification service for all systems (initial subscription includes one year of updates)
MD-MFDOL-R	Subscription Update Service for MD-MFDOL-R (Renewal of initial subscription)

### **ADDITIONAL SERVICES**

NONE