

## A feature-rich set of testing routines...

Operating System Independent—Micro 2000, Inc. created a proprietary operating system (MS2000) written in assembly language and specifically designed for hardware diagnostics. This allows for direct access to the hardware for all hardware tests. Because it entirely eliminates the DOS and Windows translations, there are none of the inaccuracies common to all O/S dependant diagnostics.

Compare Settings—Automatically interrogates and displays the actual hardware configuration, simultaneously displays the CMOS and POST information, and automatically flags all inaccurate settings.

System Information—Directly queries the hardware to identify the exact device such as CPU, NPU, BIOS name and version, detailed fixed disk information, video information, and port information. Information is extremely detailed to include items such as hard drive manufacturer name and model number.

System information spans 3 full screens of vital information. NEW! Now incorporates data from DMI, Plug & Play, and PCI resources.

## NEW! DMI System

Information—Pooled from the DMI (Desktop Management Information) area of the BIOS, the DMI screens show extended system information such as bus



Types supported on the system board, maximum speed and voltage settings for the CPU, and cache size and type. Know how many free DIMM sockets are available or what kind of RAM is in the system without having to open the case.

Accurately Identifies Conflicts—Complete I/O port scanning identifies all I/O port usage even if two or more devices are using the same resources. Specific device-type routines identify device type, IRQ usage, and DMA usage. This is absolutely essential for upgrading and adding hardware. NEW! Now checks PCI and Plug & Play devices.

**IDE Identification**—Shows detailed information on all IDE devices including model, serial number, and firmware version.

SCSI Identification—Shows detailed information including manufacturer name, product name, and SCSI bus width support.

Plug and Play Identification—Provides actual locations on all installed and active Plug and Play devices.

**PCI Identification**—Detects all PCI devices on the bus and provides basic parameters for each listed device including device number, ID, type, subtype, and device attributes.

USB Identification & Testing—Micro-Scope identifies the USB host controller on the motherboard if one is present. NEW! Tests the host controller's functionality on the system board. Works with Universal and Open Host USB controllers.

**Compare Features**—This feature allows manufacturers and service organizations to verify the hardware configuration of a system by comparing against a master configuration file created with Micro-Scope.

**Run CMOS Setup**—Display and edit CMOS settings. Very useful for setting up older machines for which the original setup diskette is no longer available.

Batch Tests/ Report Features—Allows continuous or pass-bound running of all tests or series of tests, and automatically generates a full diagnostic report which can be saved to a diskette or output to the printer. New printer-friendly report now generates reports for printers with narrower margins.

Multimedia Testing—Performs Read and Seek tests of CD-ROM, CD-ROMs in DVD drives, and CD-R drives. Soundblaster (including Soundblaster compatibles), and Adlib tests include full synthesizer tests.

These include frequency tests These include frequency tests as well as volume and gain control testing for left, right, and stereo channels on all Soundblaster and Adlib cards.

## Print Screen

**Capability**—Feature allows Micro-Scope screen images to be captured to an ASCII text file on a floppy diskette. This improves the overall ease with

which diagnostic information may be collected.

SCSI Testing—SCSI Testing includes testing the Read, Write, and Seek capabilities of SCSI drives.

System Board Tests—100% accurate testing of the CPU, NPU, 16 IRQ channels, 8 DMA channels, Real Time Clock, Keyboard controller, Clock Timer Chip, PS/2 Mouse controller, and speaker.

Low Memory Testing—Base memory can be tested prior to loading the entire diagnostic program, so even errors under 64k, which would prevent other diagnostic programs and operating systems from loading, can be found.

Unlimited Memory Testing—Micro-Scope has extensive testing of the memory with no upper limit. Memory test uses special cache avoidance steps to ensure the problem lies in the memory and not in the cache. A wide array of tests are designed to find even obscure memory problems including physically mis-linked and refresh issues. Tests include Pseudo-Random, Xor'ed Address Test, Bit Test, Proximity Test, and Pattern Test. NEW! Tests have been revised to allow more control of test length.

Video Testing—Accurately tests video adapter to the extent of the capabilities of the card regardless of monitor limitations, and all video memory without size limitations. NEW! Micro-Scope now tests video RAMDAC (if supported by the video card), screen focus testing, and extended VESA testing.

Low Level Format—Performs or initiates a low-level format on all drive types (MFM, RLL, ESDI, SCSI, and all IDE drives). This includes factory-type initialization of all IDE drives, as well as access to true factory-style format routines. This feature will Low Level Format drives even if the BIOS LBA functions are enabled. **NEW!** All EIDE drives now fully supported.

Accurate Data Recovery—Quickly restores master boot records in DOS machines which have been corrupted or damaged by viruses. Displays and edits in decimal format any boot sector and volume boot on any hard drive, allowing technician to edit the proper information. Includes editors for both floppy and hard disk for displaying and editing any data anywhere. NEW! Support for Fat 32 has been added, allowing the display and editing of FAT 32 partition structures. Advanced search functions for the Fixed Disk Editor have also been

added. The new search function will allow the user to define a physical range to search for data on the drive.

Cache Memory Testing— Accurately tests all Internal and External cache memory. All cache sub-subsystems are tested to identify the exact failure. Micro-Scope will also determine if the cache controller within the system is active. NEW! Extensive pattern

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tests have been added to test cache as thoroughly as Micro-Scope's Extended Memory tests.

Hard Disk Testing—Performs Read, Write, and Butterfly Seek tests on any fixed disk. Also displays and edits physical parameters, partition parameters, and CMOS parameters on any drive. This is not a database and does not have to be updated. Distinguishes the drive controller from the drive mechanism, (impossible under DOS) and finds any physical or electronic defect on the drive or the controller. Allows for relocating Track 0 on supported IDE drives. NEW! Safe Write Test allows user to perform a write test without destroying any data on the drive.

Floppy Disk Testing—Accurately tests any portion of a floppy drive, including read, write, format, safe write, and butterfly seek tests. Tests all media formats up to 2.88mb and includes a user-defined option for higher media formats.

Peripheral Testing—Complete and accurate testing of mouse, joystick, keyboard, printer, and sleep button.

Serial and Parallel Port Testing—Provides the most extensive and accurate port testing available, far surpassing the capabilities of DOS or Windows based diagnostics. Any possible error will be detected and identified. All ports tested, regardless of IRQ or I/O port assignment. All lines are tested on the external tests with the included loopback connectors. Instantly identifies UART capabilities. Also test FIFO capabilities of any serial port having these capabilities. Micro-Scope detects the interrupt a serial or parallel device is actually using, regardless of how it is believed to be configured.

Modem Testing—NEW! Now tests modems in connected or non-connected mode, including major AT modem commands. Retrieves modem's information and type directly from the modem's chipset.

**IDE Drive Testing**—Tests Read and Seek functions of removable drives including LS-120, Iomega ZIP, and IDE CD-ROM drives. IDE CD-ROM drives can even be tested without drivers.

**NEW!** Advanced Debugger—Allows the user to directly make BIOS data calls to retrieve information. Invaluable in locating specific information within the BIOS itself.

Realtime Benchmarks—The benchmarks in Micro-Scope are based upon the Real Time Clock (RTC), and not on making a comparison to another system like other utilities on the market. Because of our direct hardware access we are not subject to significant I/O delay introduced by the BIOS.

Unlimited Lifetime Technical Support—Most companies only offer 30 days of free support. After that you're on your own or you have to pay a fee. Micro 2000 gives free lifetime technical support for all diagnostic products.

The Micro-Scope includes: 1 1.44MB Floppy Diskette, Loopback plugs (9-pin serial, 25-pin serial, and 25-pin parallel), detailed documentation, vinyl carrying case.

Govt. Orders: NSN-7030-01-421-6459



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