

**HP 150 Personal Computers**

**HP 150  
TECHNICAL  
Reference Manual**

**Product No. 45625A**



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# NOTICE

Purpose: This manual provides detailed technical information on the internals of the HP 150 hardware, firmware, and software. It is designed to aid in the development of hardware and software products which will become part of, or work in conjunction with, the HP 150.

User Level: Use of this information assumes a background in digital logic and assembly-language programming.

Related Products: The *HP 150 Programmer's Tool Kit* (Product 45435A) contains the Assembler, Linker, and appropriate documentation. The *HP 150 MS-DOS User's Guide* (Product 45624A) provides details on MS-DOS.

Compatibility: A hardware/software product designed to be dependent on one specific version of the HP 150 hardware, firmware, or software may be incompatible with other versions of the HP 150 -- or such a product may be incompatible with future personal computer products from Hewlett-Packard, including models based on the HP 150 itself.

Support: Because of the specialized nature of this information, the many capabilities of the HP 150 when used at this level, and the importance of design strategy for successful implementation of hardware/firmware-based products, assistance in the use of this manual is provided through local consulting -- available by the hour (Product 45686A) or by the day (Product 45687A). Contact your local HP Sales and Service Office -- ask for Personal Computer Systems Engineering.

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## PRINTING HISTORY

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First Edition.....May 1984

# PREFACE

## CAUTION

This document provides detailed technical information revealing internal details of the HP 150 hardware, firmware, and software.

The information presented allows development of hardware and software products for the HP 150 which may be incompatible with future personal computer products from Hewlett-Packard, including models based upon the HP 150 itself.

This manual presents technical information concerning the HP 150 Personal Computer and covers its hardware, firmware, and software subsystems.

The intent of the manual is to aid in the development of hardware and software products which will become part of, or work in conjunction with, the HP 150.

The reader is directed towards the HP 150 Programmer's Reference materials for complementary programming information including language and development tools.

# MANUAL OVERVIEW

This manual consists of the following sections and appendices:

**Section 1 - Introduction** provides an overview of the HP 150.

**Section 2 - Hardware Overview** provides product specifications information and briefly describes each subsystem of the HP 150.

**Section 3 - Hardware Subsystems** contain detailed information on the HP 150's hardware subsystems and helpful design hints.

**Section 4 - Memory and I/O Mapping** provides information on the memory and input/output bit mappings of the system's processor.

**Section 5 - System Software** provides information on the operating systems, device drivers, MS-DOS calls, AGIOS, BIOS, configuration, and disc format structure.

**Section 6 - System Firmware** provides mapping information on system RAM memory.

**Section 7 - Programming the HP 150** contains programming information on escape sequences, MS-DOS, AGIOS, alphanumeric and graphics displays, datacomm, keyboard, HP-IB, and accessory card interfacing.

**Section 8 - AGIOS Function Call Reference** provides a reference list of AGIOS function calls.

**Appendix A - Logic Diagrams** contain schematic diagrams of the HP 150.

**Appendix B - Further Reference Documents** provides a list of reference documents to supplement this manual.

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