

PHILIPS



Data  
Systems

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# P855M/P860M System Description

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### MAIN FEATURES

- CYCLE SPEED OF 0.84 MICROSECONDS
- MEMORY SIZE OF 4K UP TO 32K WORDS
- 16-BIT WORD ORIENTED
- 16 GENERAL PURPOSE REGISTERS
- 98 INSTRUCTIONS
- DIRECT, INDIRECT, INDEXED, INDEXED INDIRECT ADDRESSING
- UP TO 48 INTERRUPT LINES
- LOW AND HIGH SPEED DATA CHANNELS (INCL. DMA AND MIOB)
- INTERFACES FOR INDUSTRIAL EQUIPMENT
- DATA COMMUNICATION
- REAL TIME CLOCKS
- AUTOMATIC STACK HANDLING
- MEMORY PROTECTION
- HARDWARE MULTIPLY/DIVIDE
- POWER FAILURE DETECTION WITH AUTOMATIC RESTART
- POSSIBILITIES TO CONNECT ALL STANDARD PERIPHERALS,  
INCLUDING CASSETTE TAPE
- EXTENSIVE SOFTWARE PACKAGE INCLUDES:
  - BASIC AND BASIC REAL TIME MONITORS
  - DISC AND DISC REAL TIME MONITORS
  - ASSEMBLERS, FORTRAN COMPILERS, LINKAGE EDITORS
  - UPDATE PACKAGE, TEXT EDITOR, DEBUGGING PACKAGE

*Th. C. Engel*

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**IMPORTANT**

From November 1st, 1973 onwards, the performance of the P855M minicomputer has been improved to that of the P860M model. In this and all companion manuals, performance figures shown for the P860M model therefore also apply to the improved P855M. The P800M Minicomputer Equipment Catalogue has also been updated to reflect this improvement, at the same time bringing the product offering more in line with market demand. Thus a number of standard CPU configurations, including a range of memory module sizes, control panels, slides and other options may be ordered by a single type number.

Although the P860M has been removed from this new catalogue, it is still available on an 'on request' basis.

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## Preface

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This handbook contains general information on both the hardware and software aspects of the P855M and P860M computers. It is intended to serve as a guide to the most important possibilities and features available with these computers. That includes short descriptions of the standard peripherals which may be connected.

For more detailed information, a set of handbooks is available: a System Introduction, giving a more detailed analysis of the features described in this book; an Interface Manual describing the interfacing possibilities; an Installation Manual, providing directions and details for installing a system; a set of service manuals for CPU and control units; manuals providing the necessary information about Data Communication with a P855M or P860M; a set of software manuals with detailed information about the available Monitors, Software Processors and Instruction Set, about Basic and Full FORTRAN and about the FORTRAN Mathematical Library.

The appendix on page 95 gives a complete survey of the P800M manuals.

To understand the information contained in this book, readers have only to be familiar with the general principles of computers and programming.

Great care has been taken to ensure that the information in this handbook is accurate and complete. However, should any errors or omissions be discovered, or should any user wish to make a suggestion for improving this handbook, he is invited to write his comments on the sheet provided at the end of the book and send it to:

Manual Writing Small Computers,  
at the address on the opposite page.



