The SWTPC microprocessor computer system is a complex and sophisticated piece of equipment. This manual assumes that you have a basic knowledge of digital computer operation and some knowledge of, or experience with, machine language and assembler programming. We realize that many customers will not have this type background. It would be impossible to provide a complete course in computer design and programming with this kit. Instead of this one manual we would probably have a ten volume set if we attempted to provide this background information. If you are a beginner in computer technology, we suggest that you check with your local library, or bookstore for books on basic computer operation and programming. The Howard Sams Co. offers several books on computers and BYTE Magazine is another source of good material on computers. You may find that is necessary to go over some of the material in this manual several times before it starts to make sense. This should not discourage you. By experimenting with programs and checking the results you should be able to work out an understanding of any of the material in this manual. Once you have mastered assembler and machine language programming, you will have an excellent basic understanding of computer operation. Although the instruction sets vary, all computers are similar at this level, All the way up to IBM 370's.

We are supplying a copy of the Motorola "M6800 Microprocessor programming Manual" as part of the documentation in this kit. This material should be of great help in understanding how to program this system. Parts cal the book are written for systems that use the 6800 microprocessor family in dedicated applications; such as process control, etc. These chapters (7, 8 and 9) not apply to systems such as this kit and should be ignored.

 $\hbox{ Information in chapter 5, as well as appendices A, B and parts of C } \\ \\ \hbox{apply to the SWTPC 6800 computer system.}$

We suggest that you start your reading in this System Documentation Notebook in the order in which the material is presented making references to specific sections of the "M6800 Microprocessor Programming Manual" when suggested. The introduction of each section within the notebook specifies the order in which the material within the section should be read for best understanding.

A large part of the material in this manual is reprinted from various portions of Motorola Semiconductor Products Inc. M6800 documentation. We would like to thank Motorola for allowing us to supply this material to our customers.

The notebook is divided into five major sections.

Section I - Hardware Section II - Programming

Section III - Operating System

Section IV - Software Section V - Appendix