You can also use our Publication Index (publication SD499) as a guide to further information about products related to our PLC-3 family of programmable controllers. Consult your local Allen-Bradley distributor or sales engineer for information regarding this publication or any needed information.

1.3 Vocabulary

We refer to certain types of equipment and terms throughout this manual. To make the manual easier for you to read and understand, we avoid repeating full product names where possible.

We refer to the :

- PLC-3 or PLC-3/10 programmable controller system as the **controller**
- Processor Module (cat. nos. 1775-L1, -L2, -L3, -L4) as the **processor**
- hardware device used to enter or load ladder-diagram programs into the PLC-3 processor as the **program loader**
- I/O scanner module (cat. nos. 1775-S5, -S4A, -S4B, -SR5, -SR) that scans the I/O chassis as the **scanner**
- ladder-diagram or user program that controls PLC-3 processor operation as the **ladder program**

1.4 Important Information

In this manual, there are three different types of important information:

- **WARNINGS** inform you where you could be injured if you do not follow the written procedure.
- **CAUTIONS** inform you where you could damage your equipment if you do not follow the written procedure.
- **IMPORTANTS** inform you of exceptions to general rules or remind you about important information.

1.5 Manual Organization

This manual is organized into the following chapters:

Chapter/ Appendix	Title	What is covered
1	Using this Manual	manual's purpose, audience, vocabulary, design, and lists related publications
2	Intorduction to Programming PLC-3 Family Controllers	memory organization and concepts used to program the processor
3	Using the Data Table	overview of the data table with a description for each section
4	Getting Started	introduction to the rung, relay-type instructions, I/O addressing formats, modes of operation, instruction set
5	Using Timers and Counters	how to use timers and counters in the ladder program
6	Using Data Manipulation Instructions	how to use data manipulation instructions in the ladder program
7	Using Files	concept of files for the processor
8	Using Data Manipulation Instructions with Files	how to use data manipulation instructions in the ladder program
9	Using Shift Registers	how to use shift register instructions to program synchronous and asynchronous shift registers in the ladder program
10	Indexing Bits within Files	concept of decimal bit addressing used with indexed logic instructions in the ladder program
11	Using Pointers for Indirect Addressing	concept of pointers and how to use pointer instructions in the ladder program
12	Using Diagnostic Instructions	how to use diagnostic instructions in the ladder program
13	Controlling Ladder Program Execution	how to use program control instructions in the ladder program, recovering from major faults, real-time interrupt, and switching contexts
14	Addressing Memory and Monitoring Controller Status	concept of extended addressing, status bit organization in memory
15	Executing Block Transfers	concept of block transfer and using block-transfer instructions in the ladder program
16	Using the Message Instruction	how to use the message instruction to execute tasks on other PLC-3 modules
17	Writing the Ladder Program	tips on writing the ladder program
A	Instruction Set Execution Times and Memory Usage	typical times for the processor to execute the instructions and the amount of memory used for each instruction
B	Numbering Systems	binary, decimal, integer, octal, hexadecimal, high-order integer, and floating-point numbering systems
C	Memory Management Forms	forms you can use to organize your I/O and data table assignments
D	Glossary	listing of words and definitions pertaining to PLC-3 programming
E	Ladder Instruction Listings	listings of the entire instruction set with abbreviations for each instruction