1.0 INTRODUCTION

The products described in this manual are manufactured or distributed by Reliance Electric Industrial Company.

The AutoMax Programming Executive software includes the software used to create and compile Control Block programs. This instruction manual describes AutoMax Control Block language for Version 2.0 and later AutoMax Programming Executive software.

Features that are either new or different from those in previous versions of the AutoMax Programming Executive software are so noted. Appendix A describes how to convert a Control Block task created with earlier versions of the Programming Executive to the current version.

1.1 Compatibility with Earlier Versions

Version 2.0 of the AutoMax Programming Executive requires AutoMax Processor M/N 57C430A or 57C431; Version 3.0 and later require AutoMax Processor M/N 57C430A, 57C431, or 57C435. M/N 57C430 cannot co-exist in the same rack with M/N 57C430A, 57C431, or 57C435. Refer to Appendix E for a listing of the AutoMax Processor modules that are compatible with Version 2 and later of the AutoMax Programming Executive software.

This instruction manual is organized as follows:

1.0	Introduction Where to find additional information Related hardware and software
2.0	General information about programming for AutoMax systems and Distributed Power systems
3.0	General information about programming in Control Block language
4.0	SCAN LOOP block
5.0-40.0	Control Blocks not dependent upon the SCAN LOOP block
41.0-53.0	Control Blocks dependent upon the SCAN LOOP block
54.0	Execution time estimates
Appendix A	Converting tasks created with previous versions of the Executive software to the current version
Appendix B	BASIC language statements and functions in Control Block tasks
Appendix C	Control Block functions supported in UDC Control Block tasks
Appendix D	BASIC language statements and functions supported in UDC Control Block tasks
Appendix E	AutoMax Processor compatibility with versions of the AutoMax Programming Executive

The thick black bar shown at the right-hand margin of this page will be used throughout this instruction manual to signify new or revised text or figures.

1.2 Additional Information

You should be familiar with the instruction manuals which describe your system configuration. This may include, but is not limited to, the following:

- J-3618 NORTON EDITOR REFERENCE MANUAL
- J-3649 AutoMax CONFIGURATION TASK INSTRUCTION MANUAL
- J-3650 AutoMax PROCESSOR INSTRUCTION MANUAL
- J-3675 AutoMax ENHANCED BASIC LANGUAGE INSTRUCTION MANUAL
- J-3677 AutoMax LADDER LOGIC INSTRUCTION MANUAL
- J2-3018 AutoMax REMOTE I/O SHARK INTERFACE INSTRUCTION MANUAL
- J2-3093 AutoMax Ladder Language Editor
- J2-3094 AutoMax Enhanced Ladder Language
- Your ReSource AutoMax PROGRAMMING EXECUTIVE INSTRUCTION MANUAL
- Your personal computer, DOS and Windows instruction manuals
- IEEE 518 GUIDE FOR THE INSTALLATION OF ELECTRICAL EQUIPMENT TO MINIMIZE ELECTRICAL NOISE INPUTS TO CONTROLLERS

1.3 Related Hardware and Software

The AutoMax Programming Executive software is used with the following hardware and software, which is sold separately.

1. M/N 57C430A, 57C431, or 57C435 AutoMax Processor.
2. IBM-compatible 80386-based personal computer running DOS version 3.1 or later. Version 4.0 and later Executive Software requires an 80486-based computer (or higher) running Windows 95.
3. M/N 61C127 RS-232C ReSource Interface Cable. This cable is used to connect the personal computer to the Processor module.
4. M/N 57C404A (and later) Network Communications module. This module is used to connect racks together as a network and supports communication with all racks on the network that contain 57C404A modules through a single Processor module. M/N 57C404 can be used to connect racks on a network; however, you cannot communicate over the network to the racks that contain M/N 57C404 Network modules. You must instead connect directly to the Processors in those racks.
5. M/N 57C413 or 57C423 Common Memory module. This module is used when there is more than one Processor module in the rack.
6. M/N 57C492 Battery Back-Up. This unit is used when there is a M/N 57C413 Common Memory module in the rack.

7. M/N 57C384 Battery Back-Up Cable. This cable is used with the Battery Back-Up unit.
8. M/N 57C554 AutoMax Remote I/O Shark Interface Module. This module is used to connect a Shark remote rack to the AutoMax Remote I/O network.
9. B/M 57552 Universal Drive Controller module. This module is used for drive control applications.
10. M/N 57C560 AutoMax PC3000 Processor/Scanner module. This module is a full-size ISA module that mounts in the personal computer.
11. M/N 57C565 AutoMax PC3000 Serial module. This module is a full-size ISA module that mounts in the personal computer.
12. M/N 57C570 Industrial AutoMax PC3000. This unit consists of a panel-mount, industrial grade enclosure containing an AutoMax PC3000 Processor/Scanner module, an AutoMax PC3000 Serial Interface module, and a power supply.