SECTION 1 - INTRODUCTION

INSTRUCTION OVERVIEW

The Type SLC Strategic Loop Controller instruction contains eight sections and six appendices.

Introduction Contains an overview of the instruction and Type SLC controller, and a description of the intended user. This section also provides a functional and physical description of the controller and a description of the communication system (how the controller fits into a larger DCS system). It also describes product nomenclature, reference documents and controller specifications.

Installation Contains unpacking and inspection instructions and special handling procedures for boards with semiconductor devices. This section also provides mounting instructions, including special considerations for mounting in hazardous locations. It also contains wiring instructions for AC/DC power wiring, analog and digital I/O wiring and grounding procedures.

Setup Describes the main menu and setup screens and discusses the various options available. It includes procedures to enter the data and provides examples of screen displays.

Configuration Contains required user actions to establish and define the controller configuration. This section also describes factory configurations in which all data can be entered through the faceplate of the controller via menu selections. It also provides custom and modified factory configurations that require use of the Type CTT Configuration and Tuning Terminal or other software configuration tools for entering data.

Operating Procedures Provides descriptions of the start-up, process, main menu, and the first level of screens under the main menu. It also describes routine operator functions that need to be addressed during daily operation of the controller.

Troubleshooting and Diagnostics Describes the diagnostic tools available to aid in service. A troubleshooting guide and flowchart help determine and isolate problems encountered during operation of the controller.

Preventive Maintenance Provides a preventive maintenance program that will help the controller operate at an optimum level.

Repair and Replacement Procedures Describes procedures required to disassemble and assemble the controller to enable parts replacement. It also includes a parts drawing and a recommended spare parts list.

Appendices Contain factory configuration drawings, setup and configuration worksheets, a quick reference of controller switch settings, screen flowchart and retrofit instructions for a Type CLC controller.

INTENDED USER

It is important for safety and operating reasons that the personnel responsible for the installation, setup, configuration, operation, maintenance, troubleshooting and repair of this unit read and understand the appropriate sections of this instruction. Do not install or complete any tasks or procedures related to operation until doing so.

Installation Personnel Should be an electrician or a person familiar with the National Electrical Code (NEC) and local wiring regulations.

Application Technician Should have a solid background in electronics instrumentation and process control and be familiar with proper grounding and safety procedures for electronic instrumentation.

Operator Should have knowledge of the process and should read and understand this instruction before attempting any procedure pertaining to the operation of the controller.

Maintenance Personnel Should have a background in electricity and be able to recognize shock hazards. Personnel must also be familiar with electronic process control instrumentation and have a good understanding of troubleshooting procedures.

PRODUCT OVERVIEW

This section contains functional, physical and communication characteristics of the controller.

Functional Description

The Type SLC Strategic Loop Controller is intended for small process control applications and easily accommodates simple PID functions to very complex multiloop control strategies. It can be used as a stand-alone product, in conjunction with other Command Series® controllers, or as a component that can interface with ABB's powerful INFI 90® Open strategic process management system or the Network 90® distributed control system.

On-board, factory configuration can be set up and tuned from the faceplate.

Custom control strategies can be implemented using an external configuration device such as the handheld Type CTT Configuration and Tuning Terminal, the PC-based ABB engineering work station, a PC equipped with the CCAD01 Command CAD Configuration Tools (Release 2.0) or WCAD01 Module Configuration Tools (Release 2.0). These devices access a library of control algorithms contained in controller memory called function codes. The function codes are