

Preface

About This Manual

This *SIMATIC 545/555/575 System Manual* includes requirements and specifications for preparing your control site and installing a SIMATIC® 545, 555, or 575 programmable logic controller system.

This manual describes the following equipment:

- 545–1103, –1104, –1105, and –1106 CPUs
- 555–1103, –1104, –1105, and –1106 CPUs
- 575–2104, –2105, and –2106 CPUs
- 575–2126 Remote I/O Annex Card
- 505–CP5434–DP Remote I/O Annex Card
- 505–6851–A/B Remote Base Controllers
- 505–6850–A/B Remote Base Controllers
- 505–6870 PROFIBUS-DP Remote Base Controller

The following major topics are covered:

- Site preparation, including power and grounding requirements and other safety considerations.
- Hardware installation, including Series 505™ and VMEbus bases, power supplies, 545/555/575 CPUs, remote base controllers (RBCs), I/O modules, and annex cards.
- System cable and wiring procedures.
- System startup, including modem operation.
- System troubleshooting, including use of AUX functions, status words, and other diagnostic aids.
- General maintenance procedures, such as changing power supply fuses.
- Using EEPROMs and EPROMs.
- Upgrade of Series 500™ bases for connection to the 545/555.

The material about 575 interboard communication which was formerly located in the *SIMATIC TI575 System Manual* has been moved to an appendix of the *SIMATIC 545/555/575 Programming Reference User Manual*.

Related Manuals

Additional manuals that have relevant information include the following:

- *SIMATIC 545/555/575 Programming Reference User Manual* (PPX:505–8204–x).
- *SIMATIC 505 TISOFT2™ User Manual* (PPX:TS505–8101–x).
- *SIMATIC 505 PROFIBUS-FMS Communications Processor User Manual*, (PPX:505–8129–x) for information on operating and configuring the FMS CP module.
- *SIMATIC 505 H1 Communication Processor User Manual* (PPX:505–8126–x).
- *SIMATIC TIWAY I™ Unilink™ Host Adapter User Manual* (PPX:TIWAY–8121–x).
- *SIMATIC 505/500 MODNIM™ User Manual* (PPX:505–8122–x).
- *SIMATIC 505 Input/Output Modules User Manual* (PPX:505–8105–x).
- *SIMATIC 505 Analog I/O Modules User Manual* (PPX:505–8120–x).
- *SIMATIC 505 Isolated Interrupt Discrete Input Module User Manual* (PPX:505–4317–x) provides information on configuring and installing the interrupt input module (PPX:505–8123–x) which is required for the operation of interrupt I/O.
- *SIMATIC 505 Redundant I/O Systems Users Manual* (PPX:505–8125–x).
- *SIMATIC 575 Interboard Communication Specification* (PPX:575–8103–x).
- *SIMATIC 575 Task Code User Manual* (PPX:575–8104–x).
- *SINEC L2/L2FO Network Components Manual* (order number 6GK1 970–5CA00–0AA1) describes how to install glass and fiber-optic PROFIBUS cable systems.
- *SIMATIC S5 ET 200 Distributed I/O System Manual* (order number 6ES5 998–3E S22) describes installation and use of ET 200 products and the I/O configuration utility, COM PROFIBUS.

Refer to material in these manuals as necessary for additional information about programming and operating your 545/555/575 system.

Agency Standards Series 505 products have been developed with consideration of the draft standard of the International Electrotechnical Commission Committee proposed standard (IEC-65A/WG6) for programmable controllers (released as IEC 1131-2, Programmable Controllers, Part 2: Equipment Requirements and Tests, First Edition, 1992-09). The 575 controller system is designed to be compatible with ANSI/IEEE Std. 1014-1987. Contact Siemens Energy & Automation, Inc., for information about regulatory agency approvals that have been obtained on Series 505 units.

Agency approvals are the following:

- UL-Listed (industrial control equipment)
- CSA-Certified (process control equipment) or cUL (UL for Canada)
- FM (Class I, Div. 2, Group A, B, C, D Hazardous Locations)

**European
Community (CE)
Approval**

All Series 505 products carry the **CE Marking** (Low Voltage Directive 73/23/EEC and/or Electro-Magnetic Compatibility Directive 89/336/EEC). A declaration of conformity is included with each CPU.

The SIMATIC 505/575 PLC Systems comply with the requirements of the EMC Directive 89/336/EEC when installed in accordance with the specifications in this manual and when installed in a grounded metal cabinet with tightly sealed doors. If Series 505 Remote I/O channel cables to remote bases are run outside the cabinet, they must either be run in a fully enclosed metal raceway or fitted with ferrite beads where they leave and/or enter the cabinets. Ferrites shall be Steward PN 28-A-2029-0 or equivalent.

For SIMATIC 575 Systems, a line filter must be connected in the power lines to the system in order to comply with the EMC directive. The line filter shall be Corcom part no. 10VS1 or equivalent Filter Network connected ahead of each power supply.

**Technical
Assistance**

For technical assistance, contact your Siemens Energy & Automation, Inc., distributor or sales office. If you need assistance in contacting your sales agent or distributor in the United States, call 1-800-964-4114.

For additional technical assistance, call the Siemens Technical Services Group in Johnson City, Tennessee at 423-461-2522, or contact them by e-mail at **simatic.hotline@sea.siemens.com**. For technical assistance outside the United States, call 49-911-895-7000.