



GuardPLC™ 2000 I/O Chassis

(Catalog Number 1755-A6)

Use this document to help you mount the GuardPLC™ 2000 I/O chassis.

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Package Contents

This package contains:

- one GuardPLC 2000 I/O chassis
- grounding grill
- grounding clips
- these installation instructions.

Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of this control equipment must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards.

The illustrations, charts, sample programs and layout examples shown in this guide are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Allen-Bradley does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Allen-Bradley publication SGI-1.1, *Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control* (available from your local Allen-Bradley office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

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Throughout this manual we use notes to make you aware of safety considerations:

ATTENTION



Identifies information about practices or circumstances that can lead to personal injury or death, property damage or economic loss.

Attention statements help you to:

- identify a hazard
 - avoid a hazard
 - recognize the consequences
-

IMPORTANT

Identifies information that is critical for successful application and understanding of the product.

European Communities (EC) Directive Compliance

If this product has the CE mark it is approved for installation within the European Union and EEA regions. It has been designed and tested to meet the following directives.

EMC Directive

This product is tested to meet the Council Directive 89/336/EEC Electromagnetic Compatibility (EMC) by applying the following standards, in whole or in part:

- EN 50081-2 EMC — Generic Emission Standard, Part 2 — Industrial Environment
- EN 50082-2 EMC — Generic Immunity Standard, Part 2 — Industrial Environment
- EN 61131-2 — Programmable Controllers — Part 2: Equipment Requirements and Tests
- EN 61000-6.2 — EMC — Part 6-2: Generic Standards — Immunity for Industrial Environments

This product is intended for use in an industrial environment.

Low Voltage Directive

This product is not required to meet Council Directive 73/23/EEC Low Voltage because it is rated less than 75V dc.

General Safety

Open style devices must be provided with environmental and safety protection by proper mounting in enclosures designed for specific application conditions. See NEMA Standards publication 250 and IEC publication 60529, as applicable, for explanations of the degree of protection provided by different types of enclosures.

The GuardPLC 2000 is an electronic system. To maintain the operating quality and integrity of the system, it must be protected from humidity, dust, vibrations, high temperatures and corrosive environments.

Mounting the GuardPLC 2000 Chassis

ATTENTION



- Do not bend the chassis. Bending damages the chassis or the backplane inside the GuardPLC 2000.
 - If the rear side of the chassis does not lie flat before the nuts are tightened, use additional washers as shims so that the chassis does not bend when you tighten the nuts.
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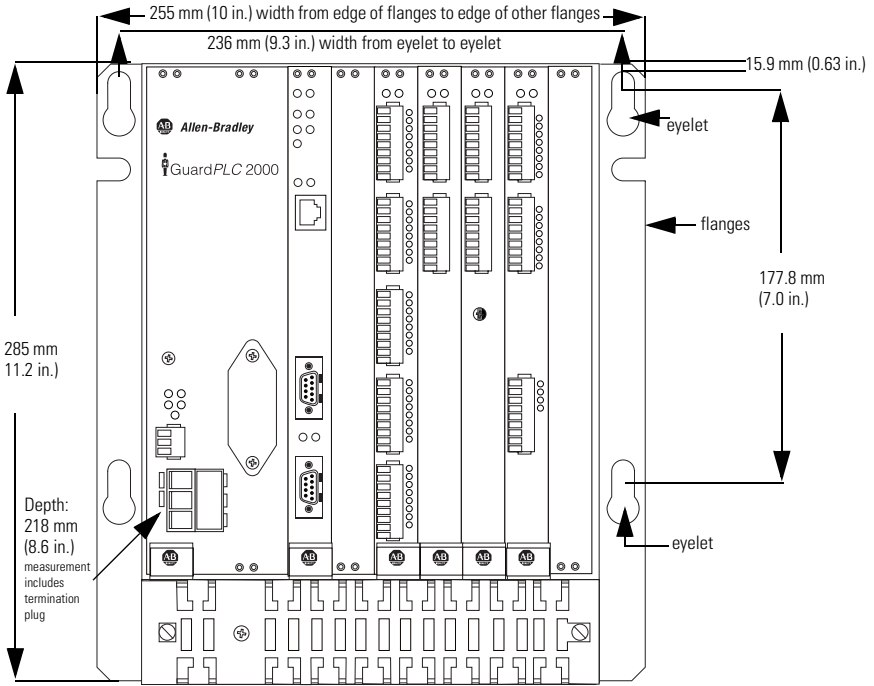
The GuardPLC 2000 provides two flanges with eyelets. Refer to the illustration below. Use bolts to mount the system to a back panel.

To mount the chassis flanges, you will need four M8 size bolts with lock washer, washer and nut with max. 13 mm head diameter. The bolts must be long enough to accept the chassis at its mounting place.

IMPORTANT

- The chassis must be installed without any modules inserted.
 - Disconnect the supply voltage before mounting the chassis.
 - The chassis must be vertically mounted with the cooling fans on the lower side.
 - Do not obstruct ventilation openings.
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NOTE: Modules are shown for illustration only. **The chassis must be installed without any modules inserted.**



Grounding the Chassis and Cables

IMPORTANT





Grounding the Chassis is required.

- A good earth ground must be used. Large grounding connections and large diameter wires are recommended. Use the extra screw (with grounding symbol) on the grounding grill to connect the chassis to a good earth ground. The shortest possible length of large diameter wire must be used (preferably copper braid).
- Connect the grounding grill to the earth ground via a low impedance connection (short strap to metal frame or cabinet).
- Ground the chassis via the grounding grill strap.
- If shielded cables are used to connect the GuardPLC 2000 to the external 24V dc source, connect the shield to the grounding contact of the power supply.
- No protective earthing (against hazardous shock) is required.

Ground the chassis and cables using the grounding screw located on the left side of the grounding grill. Grounding is required even if the control system does not have shielded cables.

The ground resistance must be as low as possible.

Specifications

GuardPLC 2000 I/O Chassis - Cat. No. 1755-A6	
Type of Mount	Panel
General Dimensions (W x H x D)	255 mm x 285 mm x 210 mm (10 in. x 11.2 in. x 8.3 in.)
Weight	3.3 kg (7.3 lbs.)
Maximum Backplane Current	30A
Operating Temperature	0°C to +60°C (+32°F to +140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	Max. 95%, not condensing
Agency Certifications (when product is marked)	 UL Listed Industrial Control Equipment UL Listed Industrial Control Equipment for use in Canada  Marked for all applicable directives  Functional Safety 1oo2D (AK 1–6, SIL 1–3, according to DIN V 19250 and IEC 61508 respectively)  Marked for all applicable acts N223

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