Industrial Computers

(Bulletin Number 6155)

Product Data and Installation Instructions
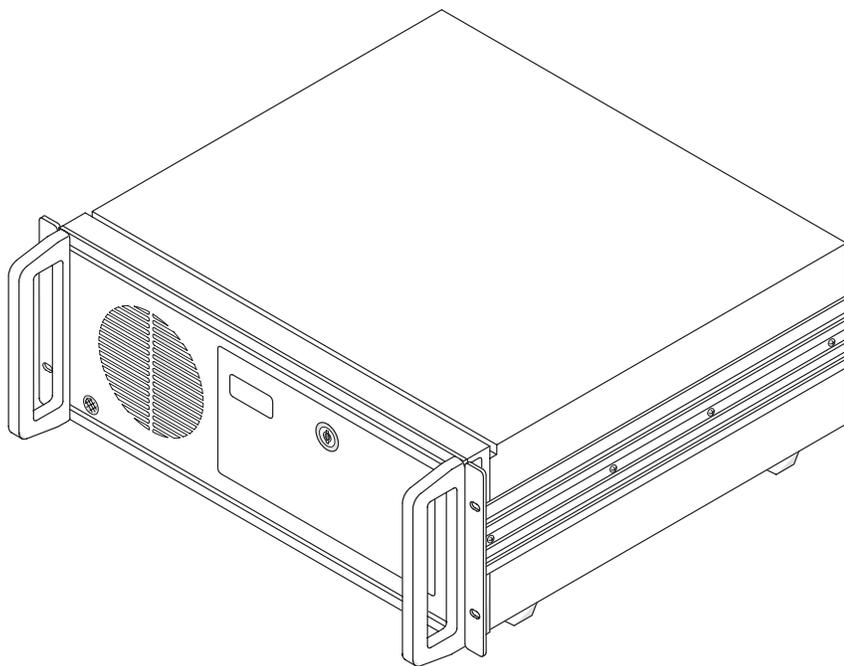
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portant User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Controls" (Publication SGI-1.1) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.

In no event will Allen-Bradley be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Allen-Bradley cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Allen-Bradley with respect to use of the information, circuits, equipment, or software described in this manual.

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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.

Important: Identifies information that is especially important for successful application and understanding of the product.

Bulletin 6155 Industrial Computer

Description

The Bulletin 6155 Industrial computer features:

- your choice of CPU

- rack mounting

- 7-slot or 12-slot passive backplane or active motherboard (rack mount or benchtop)

- many options for enhancement and expansion

Packing List

Note: Check your shipment against the packing list in the shipping carton.

Bulletin 6155 Industrial Computer is shipped with the following items:

- Industrial Computer

- 1.82 m (6ft.) AC Power Cord (optional)

- Industrial computers Product Data & Installation manual (Publication 6155-5.0)

- CPU/Processor Manual

- Software diskettes for major components

- Expansion card hold-down foam inserts

Physical Dimensions

Figure 1 Dimensions of Bulletin 6155 Industrial computer (Rackmount / Benchtop)

Note: Be sure to allow at least 76.2 mm (3.00 in.) depth clearance for cable connections and air flow.
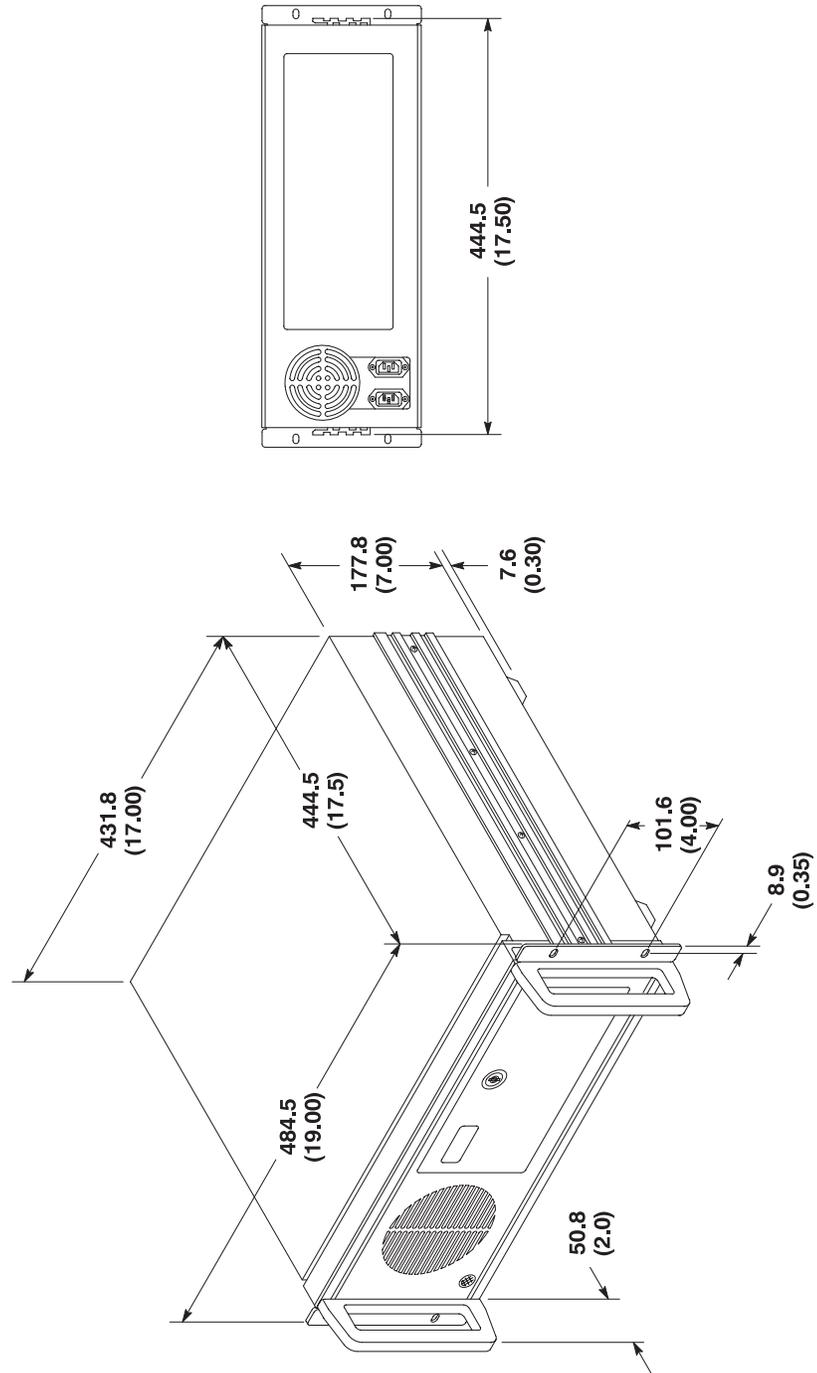
Installation Instructions

Environmental Considerations

For proper cooling, the computer requires a minimum free air space of 7.6 cm (3 in.) behind, 5.1 cm (2in.) above and below, and 2.5 cm (1 in.) on the sides of the chassis. The computer is equipped with fans to help ensure proper cooling.

Rack Mounting

The computer can be installed in a rack cabinet that conforms to EIA standards for equipment with 19 in. wide panels. The cabinet must be tall enough to accommodate the computer's height and deep enough to accommodate the unit's depth, while providing rear clearance for cabling and air flow. A cabinet with a depth of 61 cm (24 in.) is sufficient.

The computer is designed to be supported by rack slides or to be placed on a shelf. The front flanges of the computer are intended to horizontally secure the unit to the rack cabinet's front mounting rails.

To install a Bulletin 6155 computer in your rack:

1. Refer to the physical dimension drawings for your unit (Figure 1) to confirm that there is adequate space behind the panel where the unit is mounted. Remember to allow extra space for air circulation.

2. Install the rack slides in the rack cabinet.

3. Carefully remove the computer from its packaging.

4. Attach the rack slides to the unit, and align to the mating slide inside the cabinet.

5. Insert the computer in the rack cabinet from the front of the cabinet.

▶ **Tip:** It will be easier to install the computer if you support it with a shelf or other support adjusted to the appropriate height.

6. Horizontally secure the computer to the front mounting rails of the rack cabinet.

Connecting AC Power

The computer requires a single-phase power supply providing 90-132V AC or 180-264V AC at 47 to 63 Hz. Power must be available at the three-pin AC input receptacle situated in the rear of the unit.

To connect AC power to the computer:

1. Turn off the main switch or breaker.

2. Use the GND point on the rear panel of the monitor to establish a chassis to earth ground connection. Secure one end of a ground strap to the GND point. Connect the other end of the ground strap to ground. The ground terminals are M5 screws.

3. On some 6155 versions, you must manually select 120VAC or 240VAC on the power supply. Look for the selection switch on the back of 6155 unit, next to the AC power cord connector. Set this switch to the correct VAC setting for your installation.

4. Connect the plug end of the AC power cord to the mating connector on the rear of the computer.

5. Connect the plug end of the AC cord to the main outlet.

6. Restore AC power to the outlet.

Installing Cables

You will need to connect a number of cables at the rear of the unit before your Industrial Computer will function. This section describes the cable connections you will need to make. While installing cables, be sure to keep the following points in mind.

- Connect the cables according to the options in your Industrial Computer.

- Route and secure the cables. In cases where the cable crosses a door hinge, be sure to leave enough excess cable for a loose fit in all door positions.

- Coil and secure any extra cable length in a convenient location.

- Refer to the illustrations provided for help in routing and connecting the cables required to use your Industrial Computer.

To open the computer chassis

You may have to open the computer chassis to install a card or for some other reason.

1. Remove the two screws on each side of the unit (4 screws total).

2. Slide the cover straight back at least 6mm (0.25 in.) and then lift off.

Maintenance

Preparation for Shipment

If it is necessary to ship the computer from one site to another, it should be removed from the rack cabinet in which it has been installed. Whenever possible, the computer should be repacked in its original shipping carton.

> ⚠️ **ATTENTION:** Never try to ship the Industrial Computer while it is mounted in a rack. Doing so could result in damage to the rack or the Industrial Computer.

To remove the computer from the rack cabinet, reverse the installation procedures given previously in this manual.

Note: Be careful to remove the ground wire before removing the computer from the rack cabinet.

Cleaning

To inspect the filter

Filters should be removed and cleaned or replaced as necessary to maintain proper cooling. Inspect the filter at least yearly, and more often in environments with large concentrations of airborne particulate matter.

Specifications

Processor/Memory	
Processor/Speed (MHz)[a]	Pentium 166 MHz, Pentium II 266 MHz, 333 MHz, 400 MHz, 450 MHz
Memory Options	8M, 16M, 32M, 64M, 128M, 256M

System	
System Bus Architecture	32-bit PCI/ 16-bit ISA (active motherboard, 7/12-slot passive backplane)
Expansion Slots	Pentium Active Motherboard: 3 full length PCI, 3 full length ISA, 1 full length shared PCI/ISA
	Pentium II Active Motherboard: 3 full length PCI, 1 full length ISA, 1 full length shared PCI/ISA
	7-Slot Passive Backplane: 3 full length PCI[b], 4 full length ISA
	12-Slot Passive Backplane: 6 half length PCI, 6 full length ISA
Serial Ports, Standard	2
Parallel Ports, Standard	1
USB Ports	2 on Pentium II CPU boards
Operating Systems	MS DOS®, MS Windows 95®, MS Windows NT™
Network Support	PCI Ethernet card

Mass Storage	
Internal Drive Bays	5 (rackmount/benchtop):
	2 3.5" hard drive mounting locations
	2 5.25" device bays
	1 3.5" device bay
Diskette Drive	3.5 inch, 1.44 MB
Hard Disk drives[c]	4GB+, 6 GB+ EIDE, 4.3GB SCSI RAID

Operator Input	
Standard Keyboard Interface	Front panel 5-pin DIN (Standard AT), Rear panel PS/2

[a] Contact factory for latest options.

[b] Pentium II CPU board option reduces 2 PCI slots to half-length.

[c] Contact factory for latest options.

Video Controller (for external monitor)	Passive Backplane: Pentium 2MB PCI, Pentium II 2MB AGP
	Active Motherboard: Pentium 4MB PCI, Pentium II 4MB AGP

Cables	Power cord (optional)

Environmental (specifications assume standard configuration, excluding diskette drive)	
Temperature	
Operating	+5 °C to +45°C
Storage	-30°C to +60°C
Relative Humidity	8% to 80% non-condensing
Altitude	
Operating	To 10,000 ft. (3,000m)
Non-Operating	To 40,000 ft. (12,000m)
Vibration	
Operating	0.1in. p-p, 5-14 Hz sine; 1.0g peak, 14-500 Hz sine
Non-Operating	0.1 in. p-p, 5-14 Hz sine, 2.0g peak, 14-500 Hz sine
Shock	
Operating	10g (1/2 sine, 11 msec)
Non-operating	30g (1/2 sine, 11 msec)

Electrical	
Line voltage	90-132V AC, 180-264V AC auto-switching
Line Frequency	47-63 Hz
Power Consumption	150W typical, 300W max.

Safety	
Electric Shock, Fire	UL / C-UL 1950 listed
	EN60950
X-Ray Emissions	N/A

Physical	
Bulletin 6155 Dimensions	Refer to Figure 1
Net Weight	35 lb. (16 kg)

Agency Approval	CE

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