User Manual

Original Instructions

VersaView 5100 Industrial Monitors

Catalog Numbers 6200M-12WBN, 6200M-15WBN, 6200M-19WBN, 6200M-22WBN
Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

In no event will Rockwell Automation, Inc. 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, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

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**WARNING:** Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.

**ATTENTION:** Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard, and recognize the consequence.

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

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Labels may also be on or inside the equipment to provide specific precautions.

**SHOCK HAZARD:** Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.

**BURN HAZARD:** Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.

**ARC FLASH HAZARD:** Labels may be on or inside the equipment, for example, a motor control center, to alert people to potential Arc Flash. Arc Flash will cause severe injury or death. Wear proper Personal Protective Equipment (PPE). Follow ALL Regulatory requirements for safe work practices and for Personal Protective Equipment (PPE).
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This manual is a user guide for VersaView® 5100 industrial monitors. It provides procedures to the following:

- Install the monitor.
- Make monitor connections.
- Operate the monitor.
- Troubleshoot the monitor.

Abbreviations

This publication can use the following abbreviations.

<table>
<thead>
<tr>
<th>Abbr</th>
<th>Meaning</th>
<th>Abbr</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS</td>
<td>Basic input/output system</td>
<td>PCB</td>
<td>Printed circuit board</td>
</tr>
<tr>
<td>CF</td>
<td>CompactFlash</td>
<td>PCDC</td>
<td>Product Compatibility and Download Center</td>
</tr>
<tr>
<td>CMOS</td>
<td>Complementary metal oxide semiconductor</td>
<td>PCI</td>
<td>Peripheral component interconnect</td>
</tr>
<tr>
<td>COM</td>
<td>Communication (serial port interface)</td>
<td>PCIe</td>
<td>Peripheral component interconnect express</td>
</tr>
<tr>
<td>DDR</td>
<td>Double data rate (RAM)</td>
<td>PELV</td>
<td>Protective extra-low voltage</td>
</tr>
<tr>
<td>DIMM</td>
<td>Dual in-line memory module</td>
<td>POST</td>
<td>Power on self-test</td>
</tr>
<tr>
<td>DP</td>
<td>DisplayPort (digital display interface)</td>
<td>RAM</td>
<td>Random access memory</td>
</tr>
<tr>
<td>DVI</td>
<td>Digital video interface</td>
<td>RTC</td>
<td>Real-time clock</td>
</tr>
<tr>
<td>EEA</td>
<td>European Environment Agency</td>
<td>SELV</td>
<td>Safety extra low voltage</td>
</tr>
<tr>
<td>EMC</td>
<td>Electromagnetic compatibility</td>
<td>SSD</td>
<td>Solid-state drive</td>
</tr>
<tr>
<td>ESD</td>
<td>Electrostatic discharge</td>
<td>TFT</td>
<td>Thin film transistor</td>
</tr>
<tr>
<td>IEC</td>
<td>International Engineering Consortium</td>
<td>UEFI</td>
<td>Universal extensible firmware interface</td>
</tr>
<tr>
<td>LAN</td>
<td>Local area network</td>
<td>USB</td>
<td>Universal serial bus</td>
</tr>
<tr>
<td>NDM</td>
<td>Non-display model</td>
<td>UPS</td>
<td>Uninterruptible power source</td>
</tr>
<tr>
<td>NEMA</td>
<td>National Electrical Manufacturers Association</td>
<td>VGA</td>
<td>Video graphics array</td>
</tr>
</tbody>
</table>
Additional Resources

These documents contain additional information about related products from Rockwell Automation.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Computer and Monitor Specifications Technical Data, publication IC-TD001</td>
<td>Provides technical specifications about the VersaView 5100 industrial monitors.</td>
</tr>
<tr>
<td>Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1</td>
<td>Provides general guidelines for installing a Rockwell Automation industrial system.</td>
</tr>
</tbody>
</table>

You can view or download publications at http://www.rockwellautomation.com/global/literature-library/overview.page.
To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.
Chapter 1

Monitor Features

The VersaView® 5100 monitors have an edge-to-edge, all glass, ten-point multi-touch screen that can also be operated with gloves. The touch screens are precalibrated so that recalibration is not necessary. These monitors are optimized to work with the VersaView 5000 computer and thin client portfolio to create a visualization, maintenance, control, or information computing solution.

The monitors offer the following features:

- 12.1, 15.6, 18.5, or 21.5-inch active matrix display
- Native video resolutions from 1280 x 800 to 1920 x 1080 (full HD)
- Wide viewing angle with antiglare coating
- Windows and Linux compatible
- DC input power

Monitor Options

Table 1 describes what options ship currently with VersaView 5100 industrial monitors. To identify your monitor’s configuration, compare the nameplate label on your monitor to Table 1.

A comparative summary of monitor features is in publication IC:TD001, Industrial Computer and Monitors Specifications Technical Data.

Table 1 - VersaView 5100 Monitor Catalog Numbers and Display Sizes

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Display Size (in.)</th>
<th>Resolution (W x H, pixels)</th>
<th>Brightness (cd/m²)</th>
<th>Bezel</th>
<th>Touch Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>6200M-12WBN</td>
<td>12.1</td>
<td>1280 x 800</td>
<td>400</td>
<td>Tempered Glass and Stainless Steel</td>
<td>PCAP</td>
</tr>
<tr>
<td>6200M-15WBN</td>
<td>15.6</td>
<td>1366 x 768</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6200M-19WBN</td>
<td>18.5</td>
<td>1920 x 1080</td>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6200M-22WBN</td>
<td>21.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1 shows the hardware features of VersaView 5100 monitors.

**Figure 1 - VersaView 5100 Hardware Features**

<table>
<thead>
<tr>
<th>Item</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mounting clip slot(1)</td>
</tr>
<tr>
<td>2</td>
<td>DisplayPort</td>
</tr>
<tr>
<td>3</td>
<td>DVI-I port(2)</td>
</tr>
<tr>
<td>4</td>
<td>USB port</td>
</tr>
<tr>
<td>5</td>
<td>24V DC power input connection</td>
</tr>
<tr>
<td>6</td>
<td>Ground screw</td>
</tr>
</tbody>
</table>

(1) Depending on the monitor model, slots accommodate 8 to 14 mounting clips.
(2) Can be used for VGA with DVI-to-VGA adapter, cat. no. 6189V-DVIVGA, which is sold separately.
Chapter 2

Install the Monitor

Before You Begin

Before you unpack the monitor, inspect the shipping carton for damage. If damage is visible, immediately contact the shipper and request assistance. Otherwise, proceed with unpacking.

Keep the original packing material in case you need to return the monitor for repair or transport it to another location.

Parts List

The monitors ship with the following items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>• Mounting clips</td>
</tr>
<tr>
<td></td>
<td>• DC terminal block</td>
</tr>
<tr>
<td>Documents</td>
<td>• VersaView® 5100 Industrial Monitors, and VersaView 5000 Thin Clients, Industrial Computers, and Accessories Product Information, publication 6200-PC001</td>
</tr>
<tr>
<td></td>
<td>• VersaView 5000 Thin Client and Integrated Display Industrial Computers Cutout Template, publication 6200-DS001</td>
</tr>
</tbody>
</table>
Chapter 2  Install the Monitor

Installation Precautions

Read and follow these precautions before you install the monitor.

Environment and Enclosure Information

ATTENTION: This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC 60664-1), at altitudes up to 2000 m (6561 ft) without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR 22. Without appropriate precautions, there can be potential difficulties with electromagnetic compatibility in other environments due to conducted as well as radiated disturbance.

This equipment is UL Listed. However, to meet some regulatory requirements, the monitor must be mounted in an enclosure that is suitably designed for environmental conditions that can be present.

All VersaView industrial monitors are shipped with a gasketed bezel to meet specified NEMA, UL Type, and IEC IP ratings only when mounted in a panel or enclosure with an equivalent rating.

In addition to this publication, see the following:
- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for more installation requirements
- NEMA 250 and IEC 60529, as applicable, for explanations of the degrees of protection provided by enclosures

European Union Directive Compliance

This monitor meets the European Union Directive requirements when installed within the European Union or EEA regions and have the CE marking. A copy of the declaration of the conformity is available at https://www.rockwellautomation.com/global/certification/overview.page.

ATTENTION: This monitor is intended to operate in an industrial or control room environment, which uses some form of power isolation from the public low—voltage mains. Some monitor configurations cannot comply with the EN 61000-3-2 Harmonic Emissions standard as specified by the EMC Directive of the European Union. Obtain permission from the local power authority before you connect any monitor configuration that draws more than 75 W of AC power directly from the public mains.

To comply with EN 55024, the Ethernet port LAN cable must be used only indoors. All other I/O cables must be less than 3 m (9.84 ft) and used only indoors.
Installation Guidelines

Follow these guidelines to make sure your monitor provides service with excellent reliability:

- The installation site must have sufficient power.

    ATTENTION: For applications with an AC power source, the AC-to-DC power adapter (ordered separately) must be plugged into a grounded outlet to maintain an electrically safe installation.

- In dry environments, static charges can build up easily. Proper grounding of the monitor helps to reduce static discharges, which can cause shock and damage electronic components.

- The ambient air temperature must not exceed the maximum operating temperature of 0...50 °C (32...122 °F).

    IMPORTANT The monitor can operate at a range of extremes. However, the life span of any electronic device is shortened if you continuously operate the monitor at its highest rated temperature, which includes the touch screen and LCD panel.

- The humidity of the ambient air must not exceed 90% @ 40 °C (104 °F), noncondensing.

- The monitor cover must always remain in place during operation. The cover provides protection against high voltages inside the monitor and inhibits radio frequency emissions that can interfere with other equipment.

    IMPORTANT The monitor can operate at a range of extremes. However, the life span of any electronic device is shortened if you continuously operate the monitor at its highest rated temperature, which includes the touch screen and LCD panel.

- You can only mount and operate VersaView monitors in a horizontal orientation (with the interfaces at the bottom) and the vertical (upright) position. Vertical orientation (with the interfaces to the left or to the right) is only possible when supported by the operating system that is used.

In both views, interfaces are at the bottom of the monitor.
Chapter 2  Install the Monitor

Enclosure Guidelines

- The enclosure must allow sufficient space around air inlets and outlets to provide the circulation necessary for cooling. See Mounting Clearance Requirements for further information. Never allow air passages to become obstructed.

- Hot air rises. The temperature at the top of the enclosure is often higher than the temperature in other parts of the enclosure, especially if air is not circulating.

Consider a user-supplied fan, heat exchanger, or air conditioner for heat generated by other devices in the enclosure. See Installation Guidelines on page 13 for the acceptable temperature ranges for these monitors.

Mounting Clearance Requirements

**IMPORTANT** Monitors generate heat. Therefore, do not operate the monitor in an enclosure with the minimum clearances unless adequate ventilation or other cooling methods are used to lower the temperature within the enclosure.

To help prevent overheating and to provide access to the monitor I/O ports for cable connections, leave at least 5 cm (2 in.) of free space around the monitor.

Do not obstruct the air intake, exhaust openings, or cooling fins of the monitor cover.
Monitor Dimensions

Review the monitor dimensions to make sure that you allow adequate clearance on the sides and rear of the monitor for ventilation and cable connections.

Figure 2 shows the monitor dimensions in mm (in.).

Figure 2 - VersaView 5100 Industrial Monitor Dimensions

<table>
<thead>
<tr>
<th>Monitor Model</th>
<th>A (mm/in)</th>
<th>B (mm/in)</th>
<th>C (mm/in)</th>
<th>D (mm/in)</th>
<th>E (mm/in)</th>
<th>F (mm/in)</th>
<th>G (mm/in)</th>
<th>H (mm/in)</th>
<th>I (mm/in)</th>
<th>J (mm/in)</th>
<th>K (mm/in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6200M-12WBN</td>
<td>310 (12.2)</td>
<td>248 (9.76)</td>
<td>266 (10.47)</td>
<td>328 (12.91)</td>
<td>60.5 (2.38)</td>
<td>27 (1.06)</td>
<td>5.6 (0.22)</td>
<td>15 (0.6)</td>
<td>66.1 (2.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6200M-15WBN</td>
<td>396 (15.6)</td>
<td>280 (11.02)</td>
<td>298 (11.73)</td>
<td>414 (16.3)</td>
<td>60.5 (2.38)</td>
<td>27 (1.06)</td>
<td>5.6 (0.22)</td>
<td>15 (0.6)</td>
<td>66.1 (2.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6200M-19WBN</td>
<td>462 (18.19)</td>
<td>319 (12.56)</td>
<td>337 (13.27)</td>
<td>480 (18.9)</td>
<td>60.5 (2.38)</td>
<td>27 (1.06)</td>
<td>5.6 (0.22)</td>
<td>15 (0.6)</td>
<td>66.1 (2.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6200M-22WBN</td>
<td>527 (20.74)</td>
<td>355 (13.97)</td>
<td>373 (14.69)</td>
<td>545 (21.46)</td>
<td>60.5 (2.38)</td>
<td>27 (1.06)</td>
<td>5.6 (0.22)</td>
<td>15 (0.6)</td>
<td>66.1 (2.6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Required Tools

These tools are required for monitor installation:

- #2 cross-head screwdriver
- Panel cutout tools (for wall and panel mounting)
- 2 mm Allen wrench (for mounting clips)
- Anti-static wriststrap
Chapter 2 Install the Monitor

The monitors support panel mounting.

Install the Monitor

Panel Mounting Guidelines

Observe these guidelines when installing a monitor in a panel.

ATTENTION: Failure to follow these guidelines can result in personal injury or damage to the panel components.

- Remove all electrical power from the panel before you make the cutout.
- Confirm that there is adequate space behind the panel. For specific information, refer to Mounting Clearance Requirements on page 14.
- Cut supporting panels to specifications before installation. Take precautions so metal cuttings do not enter components already installed in panel.
- The supplied mounting hardware accommodates panel thickness between 1.5...6 mm (0.06...0.24 in.).
- Make sure the area around the panel cutout is clear.
- The only acceptable mounting position is in the horizontal position with the I/O ports at the bottom. For further information, see the last bullet point in Installation Guidelines on page 13.

Panel Cutout Dimensions

The VersaView 5000 Cutout Template, publication 6200-DS001, is shipped with all VersaView 5100 industrial monitors.

The monitors must be mounted to meet these panel cutout dimensions.

<table>
<thead>
<tr>
<th>Display Size (in.)</th>
<th>Cutout Dimensions (H x W), approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1</td>
<td>250 x 312 mm (9.84 x 12.28 in.)</td>
</tr>
<tr>
<td>15.6</td>
<td>282 x 398 mm (11.1 x 15.67 in.)</td>
</tr>
<tr>
<td>18.5</td>
<td>321 x 464 mm (12.64 x 18.27 in.)</td>
</tr>
<tr>
<td>21.5</td>
<td>357 x 529 mm (14.06 x 20.83 in.)</td>
</tr>
</tbody>
</table>
Mount the Monitor in a Panel

Mounting clips secure the monitor to the panel. The number of clips varies by model.

<table>
<thead>
<tr>
<th>Display Size (in.)</th>
<th>Clips (qty.)</th>
<th>Cat. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1</td>
<td>8</td>
<td>6200V-MCLPS4</td>
<td>Replacement mounting clips (14)</td>
</tr>
<tr>
<td>15.6</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.5</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Follow these steps to mount the monitor in a panel.

1. Remove power from the panel.
2. Verify that the panel surface around the area to be cut is clean and free of debris.

**ATTENTION:** Take precautions so metal fragments do not enter components already installed in the panel to avoid personal injury or damage to the panel components.

3. Cut an opening in the panel by using the appropriate panel cutout dimensions found in Panel Cutout Dimensions on page 16.
4. Attach cables to the monitor before installation if rear access to the monitor is limited after installation.

   For where to attach cables, see Connect Peripherals on page 20.
5. Make sure the sealing gasket is properly positioned on the monitor.

**IMPORTANT** The gasket provided with the monitor forms a compression-type seal. Therefore, do not use sealing compounds.

6. Place the monitor in the panel cutout.
7. Slide the mounting clips into the holes on the top, bottom, and sides of the monitor.
8. Hand-tighten the mounting clips around the bezel by following the tighten sequence in Figure 3 on page 18.
9. Repeat this process at least three times until the clips are hand-tight and the gasket is compressed uniformly against the panel.
10. With a 2 mm Allen wrench, tighten the mounting clips to a torque of 0.4 N●m (3.5 lb●in) by following the torque sequence in Figure 3 on page 18. Do not overtighten.
11. Repeat this process at least three times until the clips are properly torqued to 0.7 N\(\cdot\)m (6.2 lb\(\cdot\)in). Verify that the gasket is compressed uniformly against the panel.

**ATTENTION:** Tighten the mounting clips to the specified torque to provide a proper seal and to prevent product damage. Rockwell Automation assumes no responsibility for water or chemical damage to the monitor or other equipment within the enclosure because of improper installation.

**Figure 3 - Tightening and Torquing Sequence for Mounting Clips**

- **12.1 in. Monitor Models**
- **15.6 in. Monitor Models**
- **18.5 in. and 21.5 in. Monitor Models**
**VESAs Mount a Monitor**

You can use an optional bench/tabletop adapter to mount VersaView monitors on a bench or tabletop.

**IMPORTANT** If you choose to VESA mount a monitor, its IP rating is reduced from IP66 to IP20.

Observe these guidelines when you install a VersaView monitor on a mounting arm:

- The mounting surface and the mounting arm must be strong enough to support the monitor and the mounting hardware.
- The interface between the mounting arm and the monitor must meet VESA FPMPMI 100 mm (3.94 in.) standards.
- The mounting location must provide adequate clearance to position and move the adjustable unit, and to route cables.

Follow these steps to mount the VESA monitor to a bench or tabletop.

1. Mount the arm to the bench or tabletop by using screws, bolts, or clamps so the monitor cannot tip.
2. Align the VESA mounting holes in the back of the monitor with the holes in the arm bracket.
   
   The illustration shows the mounting holes for VESA 100 mm interface pad.
3. Insert the four supplied VESA mounting screws through the arm bracket and into the monitor.
4. Tighten the screws to secure the monitor to the arm.
Connect Peripherals

See Hardware Features on page 10 for what ports are available to connect peripherals. Use the table below for accessories to connect peripherals to VersaView monitors.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6189V-DIVGVA</td>
<td>DVI-I to VGA adapter</td>
</tr>
<tr>
<td>6200V-DPVGA2</td>
<td>DisplayPort to VGA active adapter</td>
</tr>
<tr>
<td>6200V-DPDVI2</td>
<td>DisplayPort to DVI-D active adapter</td>
</tr>
<tr>
<td>6200V-DPCL2M</td>
<td>DisplayPort to DisplayPort cable, two meters (6.5 ft) long</td>
</tr>
<tr>
<td>6200V-DVICL2M</td>
<td>DVI-D to DVI-D cable, two meters (6.5 ft) long</td>
</tr>
<tr>
<td>6200V-VGCBL2M</td>
<td>VGA to VGA cable, two meters (6.5 ft) long</td>
</tr>
<tr>
<td>6200V-USCBL2M</td>
<td>USB touch screen cable, two meters (6.5 ft) long</td>
</tr>
<tr>
<td>6200V-MPS4</td>
<td>AC-to-DC power adapter</td>
</tr>
<tr>
<td>6200V-DCCONN</td>
<td>DC power mating connector housing</td>
</tr>
</tbody>
</table>

Connect Power

All VersaView 5100 monitors are factory shipped to be connected to a 24V DC power source.

For applications with AC power sources, an AC-to-DC power adapter (cat. no. 6200V-MPS4) can be ordered separately.

Operate the monitor in an industrial or control room environment, which uses some form of power isolation from the public low-voltage mains.

**ATTENTION:** Supply the monitor circuit with its own disconnect. Use an uninterruptible power source (UPS) to help protect against unexpected power failure or power surges.
Connect AC Power

The AC-to-DC power adapter available from Rockwell Automation (cat. no. 6200V-MPS4) is a grounded, IEC 60320 3-prong power cord with a power supply input that accepts 100...240V AC and is autoranging.

Follow these steps to connect the monitor to an AC power source.

1. Connect the AC-to-DC power adapter to the DC power input on the monitor. See Hardware Features on page 10 for the DC power input location.

2. Connect the power cord of the AC-to-DC power adapter to an AC power source.

   **SHOCK HAZARD:** Connect the power cord to an AC power source with an earth ground. Failure to follow this warning can result in electrical shock.

3. Apply 100...240V AC power to the monitor.

Connect DC Power

DC power models support operation from a SELV\(^{(1)}\) power source. The DC common (DC-) can be connected together to the functional ground screw to support some SELV cases where grounding at the monitor is required by the end user.

The power supply is internally protected against reverse polarity.

**ATTENTION:** Use a SELV isolated and ungrounded power supply as input power to the monitor. This power source provides protection so that under normal and single fault conditions, the voltage between the conductors and Functional Earth/Protective Earth does not exceed a safe value.

\(^{(1)}\) Where safety extra low voltage (SELV) is as defined in IEC 61010-2-201.
Follow these steps to connect the monitor to a DC power source.

**TIP** The following steps are to wire and attach the DC terminal block that is supplied with the monitor.

The optional DC connector shown at right, cat. no. 6200V-DCCONN, can be used instead of the DC terminal block.

1. Turn off the main power switch or breaker.
2. Verify that the DC power wires meet these requirements:
   - Material: Stranded copper
   - Wire gauge: 0.326…3.31 mm (22…12 AWG)
3. Insert each DC power wire into the correct terminal on the DC terminal block.

Refer to the DC power input connector on the bottom of the monitor for which wires to connect to the DC terminal block.

4. Connect the DC terminal block to the DC power input.
5. Connect the monitor to earth ground by using a 1.5 mm² (16 AWG) or larger external wire.

   Use a ground wire with an insulation color that is approved by local inspection authority.

   **TIP** VersaView 5100 monitors have a ground stud on the bottom of the monitor.

   Use this ground stud to connect the monitor to earth ground.

6. Apply 24V DC power to the monitor.
Configure the Display

### Set the Monitor Type

If you are using a Windows plug and play operating system, your computer automatically detects the monitor type during the start-up process.

If your video card does not support plug and play, you must set the monitor type manually (for example, the screen image may be too small, too large, or distorted). Some older video cards must also be enabled to detect the monitor type.

**IMPORTANT** The monitors use a (digital) flat panel display. When they are driven by a computer’s analog VGA interface, they are connected as an analog device. Therefore, some setup screens can indicate that the monitor is operating as an analog device, rather than a digital or flat-panel device.

### Check and Change the Display Resolution

Flat panel monitors are fixed-resolution devices. The image looks best when the monitors are operated at their native resolution. However, the monitors have advanced scaling capabilities to make the display look as good as possible while running in non-native modes.

Native resolutions differ depending on the monitor. For native resolutions, see Table 1 on page 9.

If you switch the resolution of your monitor from its native resolution, the display may look slightly distorted due to the replication techniques used to fill the full screen with an image.

To check or change the display resolution, access the Display settings in the Control Panel on your computer.
**Touch Screen Precautions**

**WARNING:** If the LCD screen darkens or if the backlight is not functioning properly, the screen may be difficult to read and use of this screen could result in a potentially hazardous outcome. Do not use the LCD touch screen under these circumstances.

The design of the system must take into account the possibility of the LCD screen or LCD touch screen losing functionality and unable to be used to maintain or change control of the system. The touch screen shall not be the single point of control of critical functions and is not intended to replace an E-stop.

Design of the system should follow all applicable code and good engineering practice. Factors to consider include the following:

- The possibility of an unreadable LCD screen
- The possibility of an inoperable touch screen
- Unexpected communication errors or delays
- Operator error in the control of the system
- Proper use of E-stops and other safety practices

The user shall provide means to achieve a safe state during anomalies and to help ensure the system has adequate redundancy for critical functions. Failure to follow these instructions can result in death, serious injury, or equipment damage.

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**Touch Screen Driver Software**

The Microsoft touch screen driver is typically loaded on a computer as part of the operating system, which recognizes the touch screen.

For optimized functionality with FactoryTalk® View software, an alternate touch screen driver is recommended, which is available for download at the Rockwell Automation® Product Compatibility and Download Center (PCDC) at [https://compatibility.rockwellautomation.com/Pages/home.aspx](https://compatibility.rockwellautomation.com/Pages/home.aspx).
Adjust the Display Brightness  
You can adjust the brightness of the display through a utility that is available for download at the Rockwell Automation Product Compatibility and Download Center (PCDC) at https://compatibility.rockwellautomation.com/Pages/home.aspx.

**IMPORTANT**  
If you adjust the monitor brightness higher than the factory default setting, it can reduce the life of the LCD display. If you adjust the monitor brightness too low, it can turn off the display. The default setting may vary by display size and LCD model used.
Notes:
Clean the Monitor

To maintain your monitor, it is important to clean the display, cooling fins, and vent holes, and to remove grease or paint.

**IMPORTANT** VersaView® 5100 monitors resist the following chemicals:
- Alcohol (methyl, ethyl, or isopropyl)
- Ammonia (10% dilute solution)
- Automatic transmission fluid
- Bleach
- Commercial glass cleaners
- Diesel fuel
- Gasoline (unleaded)
- Oil (hydraulic or motor)
- Silicone-based lubricant

**Clean the Integrated Display**

Perform the following steps to clean the display.

1. Disconnect power from the monitor at the power source.

   ![ATTENTION] Since the display is a touch screen, it is possible for screen objects to activate during equipment washdowns if the monitor is turned on.

2. Clean the display with a mild soap with a clean sponge or a soft cloth.

   ![ATTENTION] Use of abrasive cleansers, solvents, and high-pressure washes can damage the display window. Do not scrub or use brushes.

3. Dry the display with a chamois or moist cellulose sponge to avoid water spots.
Clean the Air Openings and Cooling Fins

Perform the following steps to clean all VersaView 5100 industrial monitors.

1. Disconnect power from the monitor at the power source.
2. Disconnect all peripheral devices from the monitor.
3. Vacuum dust and debris from the vent holes on the sides of the monitor, and from the cooling fins on the chassis.
   Remove stubborn dirt on the cooling fins with a mild detergent and soft cloth.

Remove Paint and Grease from Bezel

Perform the following steps to remove paint and grease from the bezel of monitors properly mounted in IP66 enclosures.

1. Remove paint splashes and grease by rubbing lightly with isopropyl alcohol.

   ATTENTION: Make sure the isopropyl alcohol does not come in contact with the equipment labels. Alcohol can cause the label printing to smear.

2. Use a mild soap or detergent solution to remove residue.
3. Rinse with clean water.
Chapter 5

Troubleshoot the Monitor

The troubleshooting table lists typical problems you may encounter when you use your VersaView® monitor. It contains symptoms and possible actions to correct a problem.

### Table 2 - Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No signal message</td>
<td>Check the video cable connection between the computer and monitor.</td>
</tr>
<tr>
<td>Screen is blank</td>
<td>The video mode may be out of range. Change to the native resolution.</td>
</tr>
<tr>
<td></td>
<td>Disable the screen saver on the computer.</td>
</tr>
<tr>
<td></td>
<td>Verify that the power cord is connected.</td>
</tr>
<tr>
<td></td>
<td>Test the outlet by plugging in a properly functioning device.</td>
</tr>
<tr>
<td></td>
<td>Replace the suspected faulty cable or power cord.</td>
</tr>
<tr>
<td></td>
<td>Have the monitor serviced.</td>
</tr>
<tr>
<td>Out of range message</td>
<td>Check the maximum resolution and the frequency on the video port of your computer.</td>
</tr>
<tr>
<td>Picture is scrambled</td>
<td>The video mode may be out of range. Change to the native resolution.</td>
</tr>
<tr>
<td></td>
<td>Check the video cable connection between the computer and monitor.</td>
</tr>
<tr>
<td></td>
<td>Check the maximum resolution and the frequency of the video port of your computer.</td>
</tr>
<tr>
<td>Picture is not clear</td>
<td>Verify the screen refresh frequency rate:</td>
</tr>
<tr>
<td></td>
<td>1. Click the Control Panel&gt;Displays&gt;Settings.</td>
</tr>
<tr>
<td></td>
<td>2. Select the Monitors tab and then click Advanced.</td>
</tr>
<tr>
<td></td>
<td>3. Try refresh frequencies of 60 Hz, 70 Hz, or 75 Hz.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Settings higher than 75 Hz do not display.</td>
</tr>
<tr>
<td></td>
<td>Check the video cable connection between the computer and monitor.</td>
</tr>
<tr>
<td></td>
<td>Perform a monitor power reset.</td>
</tr>
<tr>
<td></td>
<td>Minimize unnecessary accessories such as video extension cables.</td>
</tr>
<tr>
<td></td>
<td>Perform the automatic video adjustment function.</td>
</tr>
<tr>
<td>Image is not stable</td>
<td>The video mode may be out of range. Change to the native resolution.</td>
</tr>
<tr>
<td></td>
<td>Check for proper video cable installation. Replace the suspected faulty cable.</td>
</tr>
<tr>
<td>Screen jitter or noisy video</td>
<td>The video mode may be out of range. Change to the native resolution.</td>
</tr>
<tr>
<td></td>
<td>Check for proper video cable installation. Replace the suspected faulty cable.</td>
</tr>
<tr>
<td></td>
<td>Reroute the cables or replace suspected faulty cables.</td>
</tr>
<tr>
<td></td>
<td>Check the host computer and monitor grounding.</td>
</tr>
</tbody>
</table>
Ship or Transport the Monitor

If you must ship the monitor via common carrier or otherwise transport it to another location for service or any other reason, you must first uninstall the monitor and place it in its original packing material.

**ATTENTION:** Do not ship or transport the monitor when it is installed in a machine, panel, or rack. To avoid damage to the monitor, you must uninstall the monitor and place it in its original packing material before you ship it. Rockwell Automation is not responsible for damage to a monitor that is shipped or transported while installed in a machine, panel, or rack.

Dispose of the Monitor

At the end of its life, collect the monitor separately from any unsorted municipal waste.

You cannot dispose of monitor equipment like other waste material. Most computers and monitors contain heavy metals that can contaminate the earth. Therefore, check with local health and sanitation agencies for ways to safely dispose of monitor equipment.
Rockwell Automation Support

Use the following resources to access support information.

<table>
<thead>
<tr>
<th>Technical Support Center</th>
<th>Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Technical Support Phone Numbers</td>
<td>Locate the phone number for your country.</td>
</tr>
<tr>
<td>Direct Dial Codes</td>
<td>Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer.</td>
</tr>
<tr>
<td>Literature Library</td>
<td>Installation Instructions, Manuals, Brochures, and Technical Data.</td>
</tr>
<tr>
<td>Product Compatibility and Download Center (PCDC)</td>
<td>Get help determining how products interact, check features and capabilities, and find associated firmware.</td>
</tr>
</tbody>
</table>

http://rockwellautomation.com/cunhelp.com/
http://www.rockwellautomation.com/global/support/get-support-now.page
http://www.rockwellautomation.com/global/support/direct-dial.page
http://www.rockwellautomation.com/global/literature-library/overview.page
http://www.rockwellautomation.com/global/support/pcdc.page

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