Installation Instructions

Allen-Bradley

Industrial Standard Monitors

Catalog Numbers 6176M-15VN, 6176M-15VT, 6176M-15PN, 6176M-15PT, 6176M-17VN, 6176M-17VT, 6176M-17PN, 6176M-17PT, 6176M-19VN, 6176M-19VT, 6176M-19PN, 6176M-19PT

About This Publication

This document describes how to install your monitor and make connections. Monitors are VESA-mount ready and can be installed in a panel or rack. This document does not provide information on monitor configuration or setup.

Allen-Bradley · *Rockwell Software*

Rockwell Automation

Important 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 available from your local Rockwell Automation® sales office or online at http://www.rockwellautomation.com/literature/) describes some important differences between solid-state equipment and hard-wired electromechanical devices. Because of this difference, and also 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 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.

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

Environment and Enclosure Information

Review the information on enclosures and environments before installing the monitor.

ATTENTION: Environment and Enclosure

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 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 11. Without appropriate precautions, there may be difficulties with electromagnetic compatibility in residential and other environments due to conducted and radiated disturbances.

UL listed equipment need not be mounted inside another enclosure if NEMA Type and IEC ratings are not required, but the mounting method must limit the tilt of the monitor to 30° from vertical. Examples include articulated arm, table-top stand, wall mount or other means having sufficient mechanical stability and which is secured to the mounting surface. Monitors that are not rack mounted ship with a gasketed bezel to meet specified NEMA Type, UL, and IEC ratings only when mounted in an enclosure with equivalent ratings. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for additional installation requirements
- NEMA Standard 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 mark. A copy of the Declaration of Conformity (DoC) is available at http://www.rockwellautomation.com/products/certification/ce/index.html.

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 computer configurations may not 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 connecting any computer configuration that draws more than 75 W of AC power directly from the public mains.

Before You Begin

Before unpacking 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. Use both the inner and outer packing cartons to provide adequate protection for a monitor returned for service.

Parts List

The monitors are shipped with these items.

- Industrial Monitors and Accessories CD that contains device drivers
- Installation instructions (this document)
- Cutout template (publication 6186M-DS001)
- Mounting clips
- Four VESA mounting screws (M4 x 0.7)
- Power adapter and line cord (both AC)
- HD-15 analog video cable
- RS-232 touchscreen interface cable (for touch-enabled monitors)
- USB touchscreen interface cable (for touch-enabled monitors)

Required Tools

These tools are required for installation.

- Panel cutout tools (for panel mount applications)
- #2 Phillips torque screwdriver

Installation Guidelines

Follow these guidelines to make sure your monitor provides safe and reliable service.

- The installation site must have sufficient power.

> **ATTENTION:** To maintain an electrically safe installation, the AC powered monitors must be plugged into a grounded outlet.

- The enclosure must allow sufficient space around air inlets and outlets to provide the circulation necessary for cooling; see Mounting Clearances on page 7. Never allow air passages to become obstructed.

- The ambient air temperature must not exceed the maximum operating temperature. Consider heat produced by other devices in the enclosure. You may need a user-supplied fan, heat exchanger, or air conditioner to meet this condition.

> **TIP** 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.

> **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.

- The humidity of the ambient air must not exceed specified limits. In very dry environments, static charges build up readily. Proper grounding of the monitor helps to reduce static discharges, which may cause shocks and damage electronic components.

- The enclosure or cover must remain in place at all times during operation. The cover provides protection against high voltages inside the monitor and inhibits radio-frequency emissions that might interfere with other equipment.

- For VESA mounting, the installation must provide sufficient mechanical stability to minimize the effects from vibration and shock. The mounting means must be firmly attached to the supporting surface using the appropriate hardware.

- When mounted, the monitor cannot be tilted more than 30° from vertical.

≤30°
from vertical

≤30°
from vertical
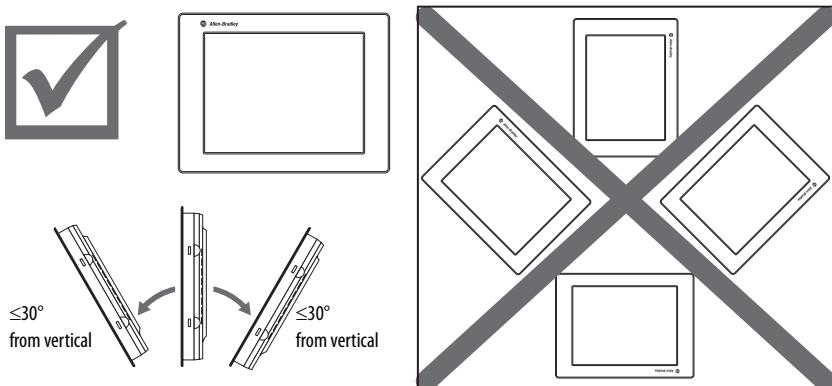
Install the Monitor

There are various ways to install the monitors.

- Panel mount
- Rack mount (only for 1950M monitors)
- VESA mount

Review each mounting type and monitor dimensions before installation.

Panel Mounting

The panel mount monitors are installed directly into a panel with mounting clips. The number of clips varies by model.

Cat. No.	Monitor Model	Mounting Clips
6176M-15PN, 6176M-15PT	1550M	10
6176M-17PN, 6176M-17PT	1750M	10
6176M-19PN, 6176M-19PT	1950M	12

Cat. No.	Description
6189V-MCLPS2	Replacement mounting clips (12)

Mounting Clearances

IMPORTANT	Do not operate the monitor in an enclosure using minimum clearances unless adequate ventilation or other cooling methods are used to maintain the monitor temperature at its specified rating.
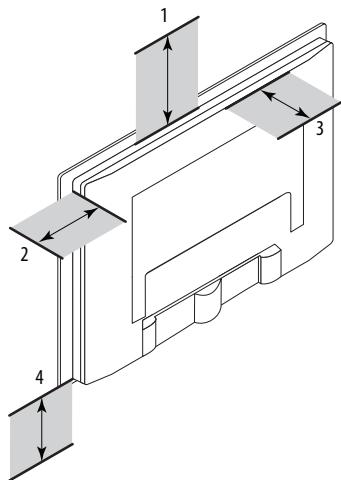
Item	Monitor Location	Clearance, min
1	Top	77 mm (3 in.)
2	Side (both)	50 mm (2 in.)
3	Back	50 mm (2 in.)
4	Bottom	50 mm (2 in.)

Panel Mounting Guidelines

Observe these guidelines when installing the monitor in a panel.

- Included with the monitor is Industrial Monitors Cutout Template, publication 6186M-DS001, with a cutout template for each monitor model.

- Cut supporting panels to specifications before installation. Take precautions so metal cuttings do not enter components already installed in the panel.

- Supporting panels must be at least 14 gauge to be sure of proper sealing against water and dust and to provide proper support. The mounting hardware supplied accommodates panels up to 6.25 mm (0.25 in.) thick.

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

Panel Cutout Dimensions

Monitor Model	Cutout Dimensions (HxW), approx
1550M	285.6 x 386.6 mm (11.24 x 15.22 in.)
1750M	329.5 x 424.0 mm (12.97 x 16.69 in.)
1950M	363.5 x 449.6 mm (14.31 x 17.70 in.)

Mount the Monitor in a Panel

Follow these steps to mount the monitor in a panel.

1. Cut the panel opening using the appropriate cutout dimensions.

2. Attach cables to the monitor before installing if rear access to the monitor will be limited after installation.

   See Monitor Connections on page 15 for where to attach cables.

3. Verify that the sealing gasket is properly positioned on the monitor.

   This gasket forms a compression-type seal. Do not use sealing compounds.

4. Place the monitor in the panel cutout.

5. Slide the mounting clips into the slots on the top, bottom, and sides of the monitor.
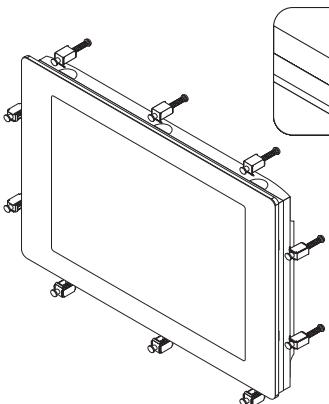
Mounting Clips for 1550M and 1750M   Mounting Clips for 1950M
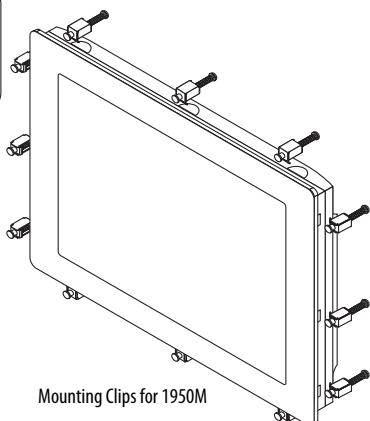
6. Hand-tighten the clips in the specified sequence until the gasket is compressed uniformly against the panel.

Tightening and Torque Sequence

1550M and 1750M Monitors   1950M Monitors
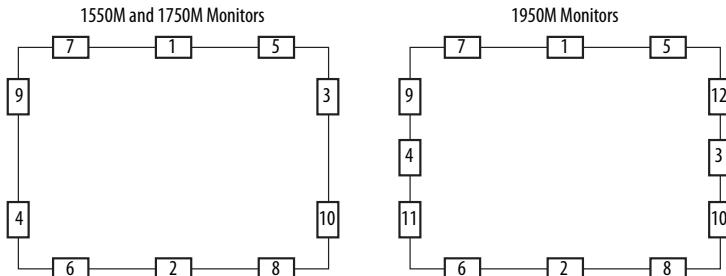
7. Tighten the mounting clips to a torque of 1.1 Nm (10 lb-in.) by following the torque sequence, making sure to not overtighten.

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

8. Repeat the torque sequence at least three times until all mounting clips are torqued to 1.1 N•m (10 lb•in) and the sealing gasket is compressed uniformly against the panel.

Rack Mounting

The 1950M monitor is installed directly into a standard 19-inch rack.

Mounting Clearances

Make sure there is adequate space behind the rack panel. Allow minimum clearances for cables and airflow. See .

> **IMPORTANT** Do not operate the monitor in an enclosure using minimum clearances unless adequate ventilation or other cooling methods are used to maintain the monitor temperature at its specified rating.

Mount the 1950M Monitor in a Rack

Follow these steps to mount the 1950M monitor in an EIA-rack cabinet.

1. Position the monitor into a standard 19-inch EIA-rack cabinet (**1**).

   TIP   For ease of installation, make sure two or more people help to install the monitor.

2. Slide the two clips into the first slots on the sides of the monitor (**2**).

3. Tighten the clips to a torque of 1.1 Nm (10 lb-in.) (**3**).

4. Slide the remaining clips into the slots on the sides of the monitor (**4**).

5. Tighten the remaining clips to a torque of 1.1 Nm (10 lb-in.).
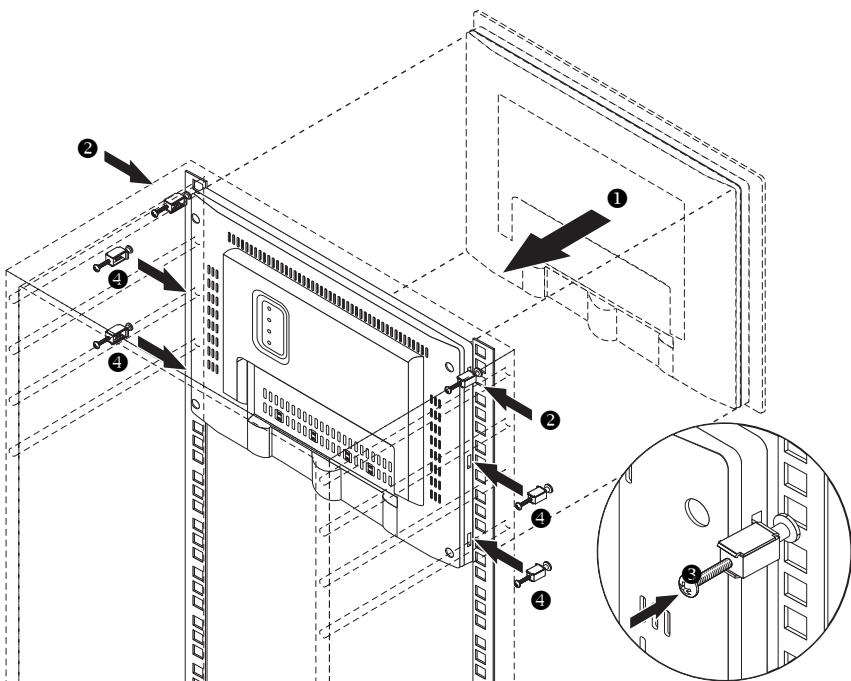
ATTENTION: The mounting rails that run vertically along the inside edges of the front opening of an EIA-rack cabinet can be of two types: wide or universal.

- Wide rails have holes spaced 12.7 mm (0.5 in.) and 31.8 mm (1.25 in.) on centers, in a repeating pattern. Wide rails are prevalent in Europe.

- Universal rails have holes spaced 12.7 mm (0.5 in.), 15.9 mm (0.625 in.), and 31.8 mm (1.25 in.) on centers, in a repeating pattern. The universal rails have a hole pattern that contains the wide pattern but provides an additional hole at the midpoint of the pattern. Universal rails are prevalent in the United States.

Mounting a VESA Monitor to a Bench or Tabletop

Use the optional bench/tabletop adapter for monitors, catalog number 6189V-MBA, to mount your VESA monitor on a bench or tabletop.

Mounting Guidelines

Observe these guidelines when installing the VESA monitor on an arm:

- The mounting surface and the mounting arm must be strong enough to support both the monitor and the mounting hardware.

- The interface between the arm and the monitor must meet VESA FPMPMI 100 mm (3.94 in.) standards.

- The mounting location must provide adequate clearance for positioning and moving the adjustable unit and for routing cables.

Mounting the Monitor on a Bench or Tabletop

Follow these directions 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. Place the monitor over the arm and insert the four supplied VESA mounting screws through the arm brackets and into the monitor.

   The illustration shows the mounting holes for VESA FPMPMI standard 100 mm (3.94 in.) interface pad.
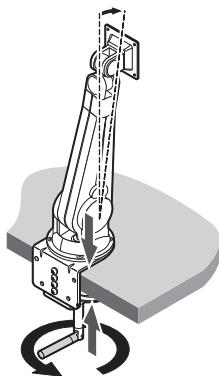
Installing Arm   Installing Monitor to Arm
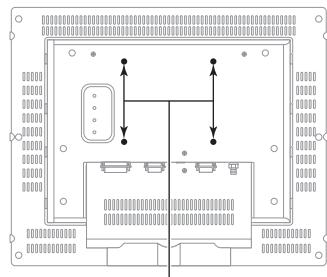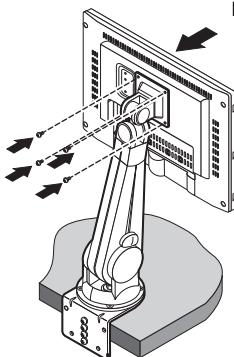
Monitor Mounting Holes (4)

3. Tighten the screws to secure the VESA monitor to the arm.

Monitor Dimensions

Dimensions for the panel mount and VESA mount monitors are expressed in millimeters (inches).

1550M Panel Mount
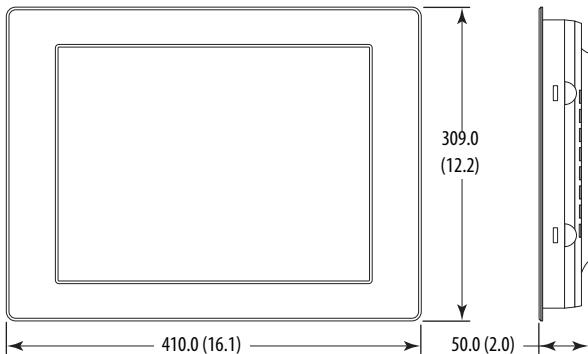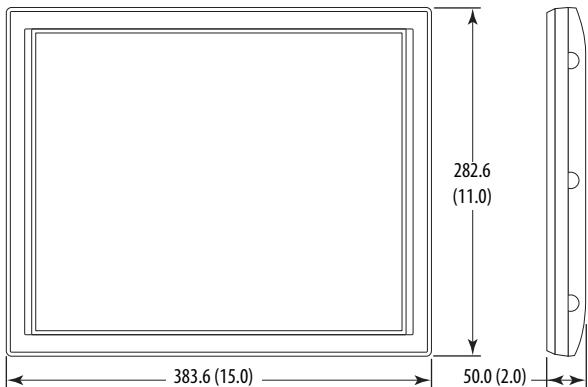
309.0 (12.2)

410.0 (16.1)   50.0 (2.0)

1550M VESA Mount

282.6 (11.0)

383.6 (15.0)   50.0 (2.0)

1750M Panel Mount

356.0
(14.0)

452.0 (17.8) 53.0 (2.1)

1750M VESA Mount

326.5
(12.9)

421.0 (16.6) 53.0 (2.1)

1950M Panel Mount

399.3
(15.7)

482.6 (19.0)

58.0 (2.3)

1950M VESA Mount

357.0
(14.1)

444.0 (17.5)

58.0 (2.3)
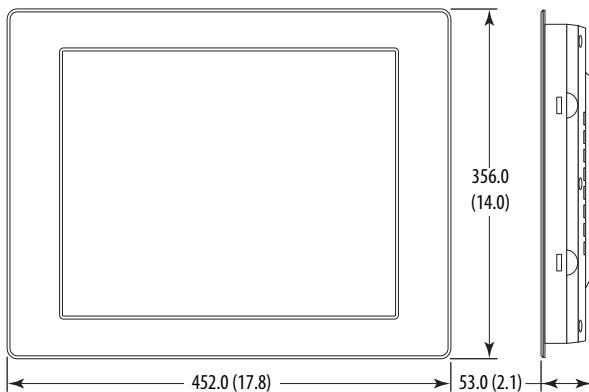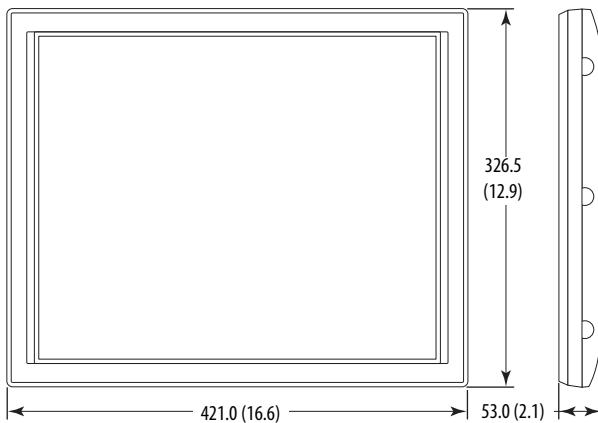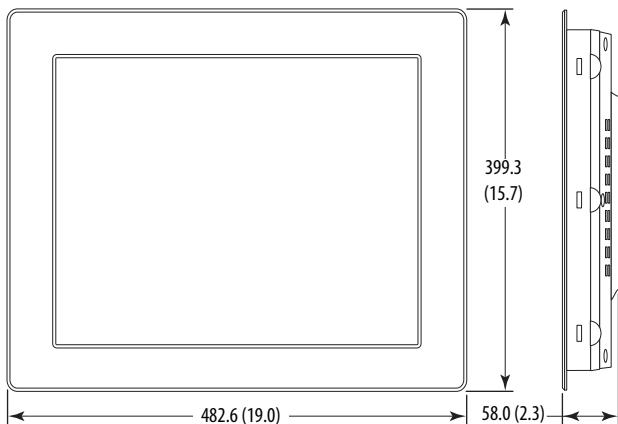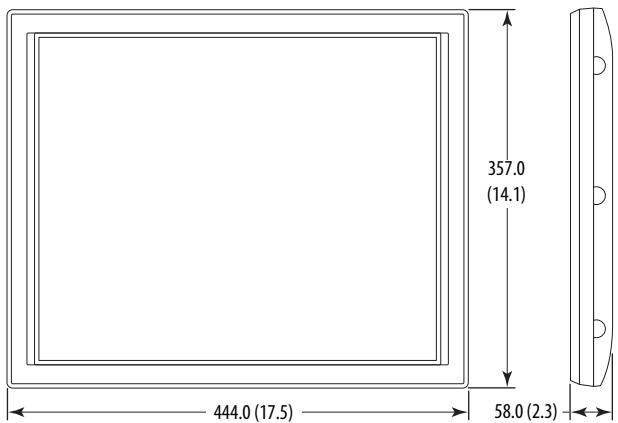
Monitor Connections

Use the connectors on the rear of the monitor to connect the following:

- Analog video source (HD-15 VGA connector)
- Digital video source (DVI connector)
- Serial port on computer for the optional touchscreen interface
- USB port on computer for the optional touchscreen interface
- USB hub device ports for connecting peripheral devices
- Power (DC input connector must be used with supplied AC power adapter.)
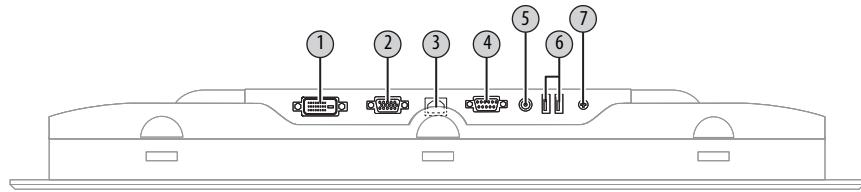
No.	Connector		No.	Connector
1	DVI-D video input		5	DC power input (AC adapter)
2	HD-15 video input		6	USB Type A connection to peripheral devices (2)
3	USB Type B connection to computer		7	M5 ground screw
4	RS-232 input (optional)			

Connect to an Analog Video Source

All monitors support analog video. Your monitor is shipped with a high-quality analog video cable. Use this video cable to connect a computer to the monitor.

Cat. No.	Description
6189V-VGACBL2	Analog video cable, 1.9 m (6.3 ft)
6189V-PCIDVI	Dual analog/digital video card, PCI

Follow these steps to connect the monitor to an analog video source.

1. Connect one end of the 1.8 m (6 ft), analog video cable to the female, HD-15 video input connector on the monitor.

2. Connect the other cable end to the VGA port on the computer or to the video generator VGA port, if used.

TIP	You can use a cable with a maximum length of 15 m (50 ft) at lower monitor resolutions, provided it is a high-quality video cable. Video amplifiers are available for longer distances.
TIP	You can connect the monitor to a video generator that does not conform to VGA standards if the generator provides analog RGB video signals (0.714V above reference black into 75 Ω) and separate horizontal and vertical sync signals. Depending on the signal, the monitor may or may not function properly.

Connect to a Digital Video Source

All monitors support digital video. Use a digital video cable to connect a computer to the DVI connector on the monitor. This cable is not supplied, but can be purchased as an accessory.

Cat. No.	Description
6189V-DVICBL2	Digital video cable, 1.8 m (6 ft)
6189V-DVICBL5	Digital video cable, 5 m (16.4 ft)
6189V-PCIDVI	Dual analog/digital video card, PCI

Follow these steps to connect the monitor to a digital video source.

1. Connect one end of the digital video cable to the female, DVI video input connector on the monitor.

2. Connect the other cable end to the output of any digital DVI video source.

TIP	For a DVI cable longer than 5 m (16.4 ft), use a DVI cable extension. However, DVI cables longer than 5 m (16.4 ft) exceed the DVI maximum cable length specification.

Connect USB Peripheral Devices

The monitor is equipped with a USB hub that provides communication between your computer and any USB compatible device such as a keyboard, mouse, or memory stick. The USB hub ports are enabled only when the monitor is powered on and the connection is made between the type B connector and the computer.
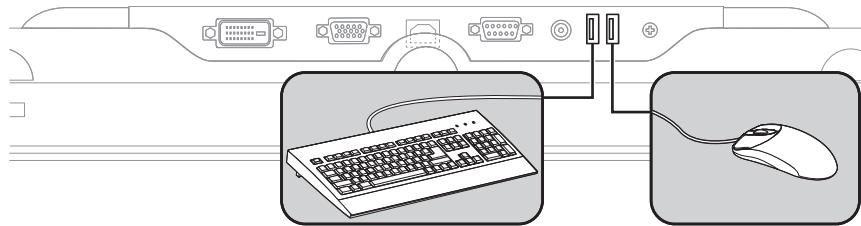
Connect the Optional Touchscreen Interface

An optional touchscreen provides a high-resolution touch input system. The driver software included with the monitor lets the touchscreen function with many Microsoft Windows industrial applications such as a pointing device or mouse.

A touchscreen interface to the computer can be configured using either the serial RS-232 connection or USB connection.

Connecting the Optional Serial RS-232 Touchscreen Interface

The RS-232 DB9 (female) D-shell connector on the bottom side of the monitor provides the serial touchscreen interface connection to the host.

Follow these directions to connect the touchscreen interface.

1. For units with the touchscreen option, connect one end of the included touchscreen serial cable to the RS-232 port connector on the monitor.

2. Connect the other end of the cable to a serial port on the host computer.

3. Tighten the captive screws on the cable connector to secure it.

Connecting the USB and Optional USB Touchscreen Interface

The USB Type A connection to the host computer is used to connect USB devices and the optional USB touchscreen interface to the host computer.

Cat. No.	Description
6189V-TCHCBL2	Serial touch cable, RS-232 cable, 1.8 m (6 ft)
6189V-USBCBL2	USB/USB touch cable, Type A to Type B, 1.8 m (6 ft)

Follow these directions to connect the touchscreen interface.

1. Connect the USB Type A male connector on the included USB cable to the USB Type A female connector on the monitor.

2. Connect the USB Type B male connector on the USB cable to the USB Type B female connector on the host computer.

USB Type A Male Connector of USB Cable

USB Type B Male Connector of USB Cable
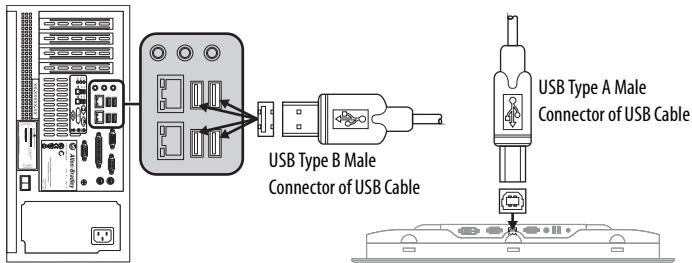
Installing the Touchscreen Driver

Before installing the touchscreen driver, we recommend that you check cable connections and communication rate for the interface you are using.

Interface	Action
RS-232	• Verify that the supplied RS-232 cable is properly installed between RS-232 input connector on the monitor and the host's COM port. • Verify that the communication rate of the COM port matches the touchscreen controller communication rate. The controller communication rate is factory-set at 38,400 baud.
USB	• Verify that the USB cable is properly installed between the USB input connector on the monitor and a USB port on the host computer. • Verify that the communication rate of the USB port matches the touchscreen controller communication rate. The controller communication rate is factory-set at 38,400 baud.

You are now ready to install the touchscreen driver found on the Accessories CD or at http://www.ab.com/linked/industrialcomputers/drivers/monitors.html.

Performing a Calibration

After installing the driver, follow the calibration instructions in the touchscreen documentation.

Following installation of the touchscreen driver and calibration, the touchscreen is ready to use.

Connect the Power

With the AC power adapter, the monitor can use a single-phase AC power supply, providing 90…264V AC at 47…63 Hz. Use only the AC adapter supplied with the monitor.

Power must be available at a grounded outlet nearby. Whenever possible, connect the monitor to the same AC power source that supplies the computer.

Cat. No.	Description
6189V-MPS3	Replacement AC power adapter

Follow these steps to connect power to the monitor.

1. Connect the supplied AC power adapter cable to the power input connector on the monitor (**1**).

2. Secure this connection by screwing the barrel over the threads (**2**).
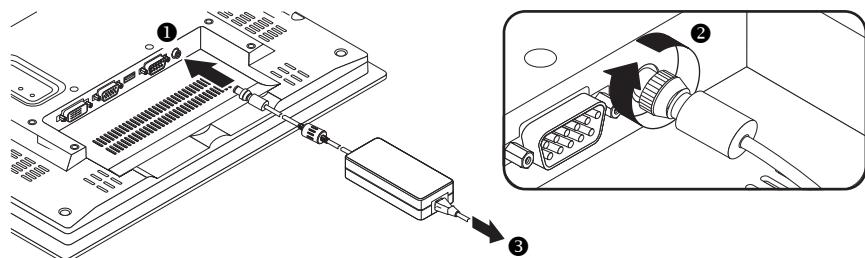

3. Connect the AC power cord to the main power supply (**3**).

Use the Functional Ground Screw

Using the functional ground screw is not required for safety and regulatory compliance. However, you can use the functional ground screw on the rear panel of the computer if a supplemental ground is desired.

Secure the Cables

Use optional cable ties to organize the monitor cables and secure them to the cable restraints on the back of the monitor. Organizing your cables provides easier access and identification.
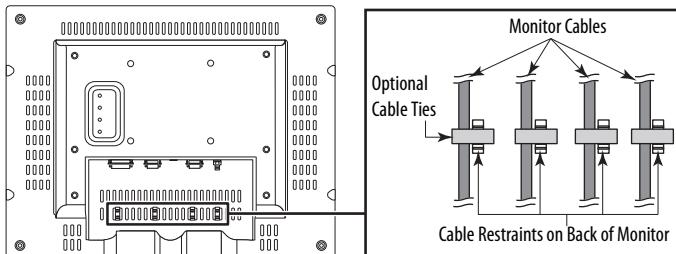
Backlight Assembly Disposal

> ⚠ **ATTENTION:** The backlight assembly in this monitor contains mercury. At the end of its life, this monitor should be collected separately from any unsorted municipal waste.

Ship or Transport the Monitor

If you need to ship the monitor via common carrier or transport it to another location, 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. Doing so may cause damage to the monitor. You must uninstall the monitor and place in its original packing material before shipping. Rockwell Automation is not responsible for damage incurred to a monitor that is shipped or transported while installed in a machine, panel, or rack.

Specifications

Display

Attribute	1550M Models	1750M Models	1950M Models
Display type	Color Active Matrix TFT LCD		
Touchscreen description	Resistive antiglare		

Touchscreen controller
    Series A and B
    Series C
	
	Panjit
	EETI		

Available touchscreen drivers
    Series A and B
 	
    Series C
	
	● Windows XP Professional
	● Windows Server 2003 (32-bit)
	● Windows 7 Professional (32-bit)
	
	● Windows XP Professional
	● Windows Server 2003 (32-bit)
	● Windows 7 Professional (32-bit and 64-bit)
	● Windows Server 2008 (64-bit)		

Display size (diagonal)	381 mm (15.0 in.)	432 mm (17.0 in.)	483 mm (19.0 in.)
Display area (WxH), approx	305 x 229 mm (9.0 x 12.0 in.)	338 x 270 mm (13.3 x 10.7 in.)	377 x 302 mm (14.8 x 11.9 in.)
Resolution (WxH), approx	1024 x 768 (native mode), 16.7M colors	1280 x 1024 (native mode), 16.7M colors	
Luminance (typical)	350 cd/m^2 (Nits)	300 cd/m^2 (Nits)	
Contrast ratio (typical)	400:1	800:1	

Response time
    Rising
    Falling
	
	4 ms
	12 ms
		
		6 ms
		3 ms	

Backlight	CCFT tubes; 50,000 h (for 1/2 brightness)		

Mechanical

Attribute	1550M Models	1750M Models	1950M Models

Dimensions (HxWxD), approx
    Panel mount monitors
 	
    VESA mount monitors
	
	309.0 x 410.0 x 50.0 mm
	(12.2 x 16.1 x 2.0 in.)
	282.6 x 383.6 x 50.0 mm
	(11.0 x 15.0 x 2.0 in.)
		
		356.0 x 452.0 x 53.0 mm
		(14.0 x 17.8 x 2.1 in.)
		326.5 x 421.0 x 53.0 mm
		(12.9 x 16.6 x 2.1 in.)
			
			399.3 x 482.6 x 58.0 mm
			(15.7 x 19.0 x 2.3 in.)
			357.0 x 444.0 x 58.0 mm
			(14.1 x 17.5 x 2.3 in.)

Weight
    Panel mount monitors
    VESA mount monitors
	
	4.1 kg (9.02 lb)
	3.1 kg (6.82 lb)
		
		5.7 kg (12.54 lb)
		4.6 kg (10.12 lb)
			
			7.5 kg (16.50 lb)
			6.0 kg (13.20 lb)

Electrical

Attribute	1550M Models	1750M Models	1950M Models
Input voltage, AC DC	90…264 V, autoranging 12 V (power adapter required)		
Line frequency	47…63 Hz		
Power consumption	2 A at 24 W	3 A at 36 W	3.5 A at 42 W

Environment

Attribute	Value
Temperature Operating Nonoperating	0…45 °C (32…113 °F) -20…60 °C (-4…140 °F)
Relative humidity	10…90% noncondensing
Shock Operating Nonoperating	15 g (1/2 sine, 11 ms) 20 g (1/2 sine, 11 ms)
Shock Operating Nonoperating	15 g (1/2 sine, 11 ms) 20 g (1/2 sine, 11 ms)
Vibration Operating Nonoperating	0.015 in p-p, 10…53 Hz, 1.0 g peak, 53…640 Hz 0.015 in p-p, 10…53 Hz, 2.0 g peak, 53…640 Hz
Enclosure ratings[1]	NEMA Type 4, 12, IEC IP66

(1)   Applies to panel mounted monitors only.

Certifications

Certifications[1]		
● C-Tick	● CE Marked for all applicable directives	● Turkey RoHS
● China RoHS	● RoHS Compliant	● UL/c-UL Listed

(1)   See http://www.rockwellautomation.com/products/certification//index.html for declarations of conformity, certificates, and other certification details.

Additional Resources

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

Resource	Description
Industrial Standard Monitors User Manual, publication 6176M-UM001	Provides information on how to install, configure, and troubleshoot 6176M industrial monitors.
Industrial Monitors Cutout Template, publication 6186M-DS001	Provides cut-out templates to panel mount 6176M industrial monitors.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.rockwellautomation.com/products/certification/index.html	Provides declarations of conformity, certificates, and other certification details.

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

Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products.
At http://www.rockwellautomation.com/support, you can find technical manuals, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools. You can also visit our Knowledgebase at http://www.rockwellautomation.com/knowledgebase for FAQs, technical information, support chat and forums, software updates, and to sign up for product notification updates.

For an additional level of technical phone support for installation, configuration and troubleshooting, we offer TechConnect[sm] support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit http://www.rockwellautomation.com/support/.

Installation Assistance

If you experience a problem within the first 24 hours of installation, please review the information that's contained in this manual. You can also contact a special Customer Support number for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the Worldwide Locator at http://www.rockwellautomation.com/support/americas/phone_en.html, or contact your local Rockwell Automation representative.

New Product Satisfaction Return

Rockwell Automation tests all of its products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned, follow these procedures.

United States	Contact your distributor. You must provide a Customer Support case number (call the phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for the return procedure.

Documentation Feedback

Your comments will help us serve your documentation needs better. If you have any suggestions on how to improve this document, complete this form, publication RA-DU002, available at http://www.rockwellautomation.com/literature/.

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