



**Sentry Series  
Video Quality Monitors  
Installation and Safety  
Instructions**







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Video Quality Monitors  
Installation and Safety  
Instructions**

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- United Kingdom 44 1344 39 2541
- Europe\* toll-free 00800-22554411

\* Austria, Belgium, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, Switzerland, and UK.

Worldwide, please email [videosupport@tektronix.com](mailto:videosupport@tektronix.com).

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# Table of Contents

Preface .....	1
Sentry Series products .....	1
Product documentation .....	2
Important safety information .....	3
General safety summary .....	3
Service safety summary .....	5
Terms in this manual .....	6
Symbols and terms on the product .....	6
Operating requirements .....	7
Environmental ratings .....	7
Electrical ratings .....	8
Site considerations .....	8
Installation .....	9
Rackmount installation .....	9
Power and signal connections .....	11
Power-on and power-off procedures .....	12
Network installation .....	13
Video input configuration .....	15
Controls and connections .....	15
Front panel controls .....	15
Rear panel connectors .....	16
Compliance information .....	18
EMC compliance .....	18
Safety compliance .....	20
Environmental considerations .....	22



# Preface

This document contains the following information:

- Important safety precautions to avoid injury and prevent damage to this product or any products connected to it
- EMC (electromagnetic compliance), safety, and environmental standards with which the instrument complies
- Voltage, power, and environmental requirements to use the product
- Installation procedure
- Power-on and power-off procedure

Read the *General Safety Summary* before installing this product. (See page 3.)

## Sentry Series products

The following table provides a high-level description of the Tektronix Sentry series products.

### Product description

Products	Description
Sentry	Sentry is an MPEG transport stream monitoring device that supports next generation digital services and traditional program monitoring. Sentry supports MPEG-2, H.264 AVC, H.265 HEVC, MPEG-4 part 10, and VC-1 video compression standards, with GigE, ASI, RF, 10GbE and dual input support available.
Sentry Verify	Sentry Verify enables video service providers to accurately determine the health of the MPEG/IP transport network, with 10GbE, RF and dual input support available. Sentry Verify provides alerts and generates useful reports in the same fashion as the Sentry product.
Sentry Assure	Sentry Assure offers Sentry Verify functionality with Digital Program Insertion (DPI) monitoring and Audio Loudness Monitoring (ALM) options included and serves as a last line of defense before modulation and encryption.
Sentry Edge	Sentry Edge provides critical monitoring at the edge of a network and offers specific reporting and alerting capabilities for services in the RF domain. Sentry Edge provides dual tuners for QAM-B and ATSC demodulation.
Sentry Edge II	Sentry Edge II provides critical monitoring at the edge of a network and offers specific reporting and alerting capabilities for services in the RF domain. Sentry Edge II provides either 4 channels or 8 channels of QAM demodulation (QAM A/B/C) and provides RF measurements such as MER, BER, signal level, RF lock, EVM, and constellation.
Sentry ABR	Sentry ABR is an “active” monitoring product that proactively monitors ABR content on origin servers or CDN caching servers. It does this by actively requesting and validating program playlists / manifests that it has been configured to monitor. It then requests from the server, in turn, all of the fragments of each profile / representation for each program – calculating availability and performance metrics and generating alerts in real time.

## Product description, (cont.)

Products	Description
Medius Application Manager	Medius is an aggregation device that provides a central location to view manage and configure your Sentry products. The Medius product allows you to compare like programs across multiple Sentry units, to correlate reports for anomalies and view trending data for all of your services.
Consul System Monitor	Consul aggregates reports and trending data from multiple Medius units and offers video service providers an effective way of utilizing monitoring data in large-scale monitoring deployments.

## Product documentation

The following table lists the documentation that is available for the Sentry Series products. A printed copy of this manual and the appropriate User Guide are supplied with each product.

**Table 1: Sentry Series product documentation**

Item	Tektronix part number	Purpose	Location
Sentry Series Installation and Safety Instructions (this manual)	071-3007-XX	Provides safety and compliance information with hardware installation instructions for all of the Sentry monitors	Printed manual
Medius Application Manager User Guide	077-3009-XX	Provides operation and application information for the Tektronix Medius Application Manager	PDF-only manual
Sentry Series Video Quality Monitor User Guide	077-3202-XX	Provides operation and application information for the Tektronix Sentry, Sentry Verify, Sentry Edge, Sentry Edge II, Sentry Assure, and Sentry ABR Video Quality Monitors	PDF-only manual
Consul Application Manager User Guide	077-1143-XX	Provides operation and application information for the Tektronix Consul Application Manager	PDF-only manual

## Important safety information

This manual contains information and warnings that must be followed by the user for safe operation and to keep the product in a safe condition.

To safely perform service on this product, additional information is provided at the end of this section. (See page 5, *Service safety summary*.)

### General safety summary

Use the product only as specified. Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it. Carefully read all instructions. Retain these instructions for future reference.

Comply with local and national safety codes.

For correct and safe operation of the product, it is essential that you follow generally accepted safety procedures in addition to the safety precautions specified in this manual.

The product is designed to be used by trained personnel only.

Only qualified personnel who are aware of the hazards involved should remove the cover for repair, maintenance, or adjustment.

Before use, always check the product with a known source to be sure it is operating correctly.

This product is not intended for detection of hazardous voltages.

Use personal protective equipment to prevent shock and arc blast injury where hazardous live conductors are exposed.

When incorporating this equipment into a system, the safety of that system is the responsibility of the assembler of the system.

#### To avoid fire or personal injury

**Use proper power cord.** Use only the power cord specified for this product and certified for the country of use.

Do not use the provided power cord for other products.

**Ground the product.** This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, make sure that the product is properly grounded.

Do not disable the power cord grounding connection.

**Power disconnect.** The power cord disconnects the product from the power source. See instructions for the location. Do not position the equipment so that it is difficult to operate the power cord; it must remain accessible to the user at all times to allow for quick disconnection if needed.

**Observe all terminal ratings.** To avoid fire or shock hazard, observe all ratings and markings on the product. Consult the product manual for further ratings information before making connections to the product.

Do not apply a potential to any terminal, including the common terminal, that exceeds the maximum rating of that terminal.

The measuring terminals on this product are not rated for connection to mains or Category II, III, or IV circuits.

**Do not operate without covers.** Do not operate this product with covers or panels removed, or with the case open. Hazardous voltage exposure is possible.

**Avoid exposed circuitry.** Do not touch exposed connections and components when power is present.

**Do not operate with suspected failures.** If you suspect that there is damage to this product, have it inspected by qualified service personnel.

Disable the product if it is damaged. Do not use the product if it is damaged or operates incorrectly. If in doubt about safety of the product, turn it off and disconnect the power cord. Clearly mark the product to prevent its further operation.

Examine the exterior of the product before you use it. Look for cracks or missing pieces.

Use only specified replacement parts.

**Use proper fuse.** Use only the fuse type and rating specified for this product.

**Do not operate in wet/damp conditions.** Be aware that condensation may occur if a unit is moved from a cold to a warm environment.

**Do not operate in an explosive atmosphere.**

**Keep product surfaces clean and dry.** Remove the input signals before you clean the product.

**Provide proper ventilation.** Refer to the installation instructions in the manual for details on installing the product so it has proper ventilation.

Slots and openings are provided for ventilation and should never be covered or otherwise obstructed. Do not push objects into any of the openings.

**Provide a safe working environment.** Always place the product in a location convenient for viewing the display and indicators.

Avoid improper or prolonged use of keyboards, pointers, and button pads. Improper or prolonged keyboard or pointer use may result in serious injury.

Be sure your work area meets applicable ergonomic standards. Consult with an ergonomics professional to avoid stress injuries.

Use care when lifting and carrying the product.

Use only the Tektronix rackmount hardware specified for this product.

## Service safety summary

The *Service safety summary* section contains additional information required to safely perform service on the product. Only qualified personnel should perform service procedures. Read this *Service safety summary* and the *General safety summary* before performing any service procedures.

**To avoid electric shock.** Do not touch exposed connections.

**Do not service alone.** Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

**Disconnect power.** To avoid electric shock, switch off the product power and disconnect the power cord from the mains power before removing any covers or panels, or opening the case for servicing.

**Use care when servicing with power on.** Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

**Verify safety after repair.** Always recheck ground continuity and mains dielectric strength after performing a repair.

## Terms in this manual

These terms may appear in this manual:



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**WARNING.** *Warning statements identify conditions or practices that could result in injury or loss of life.*

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**CAUTION.** *Caution statements identify conditions or practices that could result in damage to this product or other property.*

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## Symbols and terms on the product

These terms may appear on the product:

- DANGER indicates an injury hazard immediately accessible as you read the marking.
- WARNING indicates an injury hazard not immediately accessible as you read the marking.
- CAUTION indicates a hazard to property including the product.



When this symbol is marked on the product, be sure to consult the manual to find out the nature of the potential hazards and any actions which have to be taken to avoid them. (This symbol may also be used to refer the user to ratings in the manual.)

The following symbol(s) may appear on the product:



CAUTION  
Refer to Manual



Protective Ground  
(Earth) Terminal



Standby

## Operating requirements

Read this section before installing the instrument. This section provides the information that you need to know to operate your product safely and correctly.

Verify that you have received all of the parts of your instrument and for the following:

- Correct power cords for your geographical area
- Rackmount kit including the following parts:
  - Two rear brackets
  - Four ¼-inch 10-32 screws (for securing the rear brackets to the chassis)



**WARNING.** To prevent serious injury or damage to the product, do not operate this product with covers or panels removed. The covers should be removed only at the direction of a Tektronix Support or Sales Engineer.

## Environmental ratings

The following table describes the environmental requirements for the Sentry Series monitors.



**CAUTION.** To ensure proper cooling allow sufficient airflow around the instrument, avoid blocking any exhaust fans or vents when using the instrument. Inadequate clearances can cause the instrument to overheat.

**Table 2: Environmental specifications**

Characteristic		Description
Temperature	Operating	5 °C to +40 °C (+41 °F to +104 °F)
Humidity	Operating	Between 0% and 80% relative humidity
Altitude	Operating	0 m to 2000 m (6562 ft.)
Cooling		This product is provided with forced-air cooling; do not block ventilation openings.

## Electrical ratings

**Power requirements** The power requirements for the Sentry Series monitors are listed in the following table.

Table 3: Power requirements

Feature	Description
Source voltage range and frequency	100 VAC to 240 VAC, 50/60 Hz
Power consumption (maximum)	4.0 A to 1.7 A
Overvoltage category	II (as defined in IEC61010-1)
Pollution degree	2 (as defined in IEC61010-1) rated for indoor use only

## Site considerations

Use the hardware (included with the product) to best position the product in the instrument rack.



**WARNING.** *To avoid injury or damage to the equipment, make sure that the electrical circuits are not overloaded, the equipment is properly grounded, and there are no objects placed on top of the instrument.*

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# Installation

## Rackmount installation



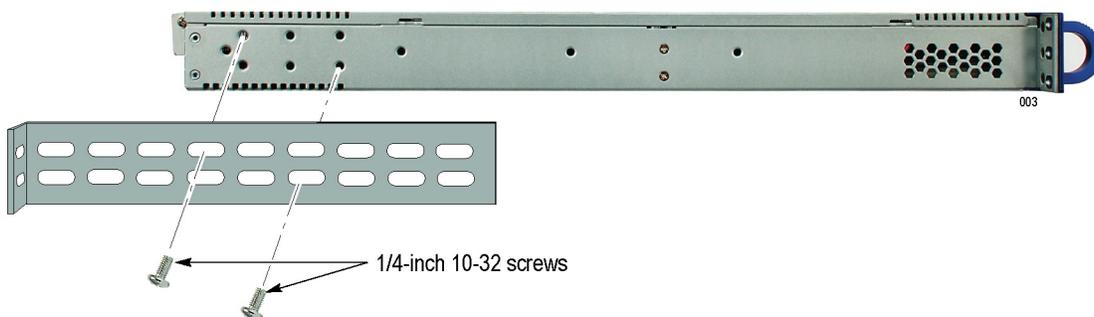
**CAUTION.** To avoid a fire hazard, place the instrument in the equipment rack only as specified; proper ventilation must be maintained. Do not restrict airflow to the ventilation openings on the sides and rear of the instrument.

Efficient cooling will be maintained in a rack-mounted instrument only if the air temperature at all intake air vents (inside the equipment rack) does not exceed 40 °C.

The Tektronix Sentry Series monitors are designed to be used in a standard 19-inch equipment rack. The rackmount kit (two rear rackmount brackets and four screws) is shipped as a standard accessory with each instrument.

**Procedure** Complete the following procedure to install the instrument in the equipment rack:

1. Locate the rackmount kit that came with the instrument.
2. Use two 1/4-inch 10-32 screws per bracket to install the rear rackmount brackets in the desired location in the equipment rack as shown. (See Figure 1.)



**Figure 1: Install the rear rackmount brackets**

- a. Determine the position of the rear rackmount brackets to suit the depth of the rack. Adjust the screws as necessary.

Approximately six inches of clearance is required between the rear panel of the instrument and any rear cabinet panel to allow for connector space and adequate air circulation.

- b. Tighten the screws to 15 in-lbs.



**WARNING.** To prevent the instrument from falling and causing personal injury and damage to the instrument, support the instrument until it is firmly installed in the equipment rack.

3. Support the instrument in the equipment rack while attaching two 10-32 screws (length as recommended by the equipment rack manufacturer) on each side of the front panel. (See Figure 2.) Tighten the screws to 15 in-lbs.



Figure 2: Attach the screws to the front panel in the equipment rack

4. Attach two 10-32 screws (length as recommended by the equipment rack manufacturer) on each side of the rear panel to secure the instrument in the equipment rack. (See Figure 3.) Tighten the screws to 15 in-lbs.



Figure 3: Attach the screws to the rear brackets in the equipment rack

## Power and signal connections

After the instrument is installed in the equipment rack, perform the following steps to connect power and signal cables:

1. Connect the power cord to the rear of the instrument.

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**NOTE.** *When installing the instrument or when removing the instrument from service, the power cord should be the first thing connected to the instrument and the last thing disconnected from the instrument.*

---

2. If your instrument has the optional Ethernet-based transport stream input capability (GigE), connect one end of an Ethernet cable to the **IP/MPEG Input Port** on the rear of the instrument. Connect the other end of the cable to your video transport stream source. (See Figure 6 on page 17.)
3. If your instrument has an ASI, RF, or 10GbE interface, connect the appropriate signal cable(s) to the input connector(s). (See Figure 6 on page 17.)

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**NOTE.** *The 4-port ASI interface uses mini-BNC connectors. Instruments with this interface are supplied four mini-BNC-to-BNC adapters as standard accessories.*

*You will be able to configure the video inputs after you perform the network installation. (See page 15, Video input configuration.)*

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4. Use the front-panel On/Standby button to power on the instrument. (See page 12, *Power-on and power-off procedures.*)

## Power-on and power-off procedures

This instrument operates from a single-phase power source with the neutral conductor at or near earth ground. A protective ground connection through the grounding conductor in the power cord is essential for safe operation.

- Power-on**
1. Connect the power cord to the rear of the instrument.

---

**NOTE.** *When installing the instrument or when removing the instrument from service, the power cord should be the first thing connected to the instrument and the last thing disconnected from the instrument.*

---

2. Push the On/Standby button on the instrument front-panel and the instrument will turn on. (See Figure 4 on page 15.)

---

**NOTE.** *The On/Standby button on the front-panel does not disconnect mains power. Only the power cord at the rear of the product can disconnect mains power.*

---

3. Wait for the instrument to complete the power on process.
4. Refer to the appropriate User Guide for more information for using your Sentry Series monitor. (See page 2, *Product documentation*.)

### Power-off



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**CAUTION.** *To avoid losing important information in the internal database, do not power off the instrument using the front panel On/Standby button. You should power off the instrument from using the **Configure > Power Off** menu selection within the application.*

---

The standard method for powering off the instrument is to use the **Configure > Power Off** menu option from the user interface.

In the event that you cannot access the user interface, press the front panel On/Standby button twice within two seconds to power off the instrument.

## Network installation

After the instrument is installed and powered on, you need to configure the network parameters so that the instrument can be accessed by a computer through the Management Port. (See Figure 6 on page 17.)

The computer can be connected to the Management Port using either of the following two methods:

- Connect an Ethernet cable from a standalone computer directly to the instrument
- Connect an Ethernet cable from your local Ethernet network to the instrument, which allows you to operate the instrument from any computer on the network

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**NOTE.** *When you first receive the instrument, you must initially connect a computer directly to the Management Port on the instrument in order to configure the network settings. Depending on how you configure the network settings on the instrument, you can then connect the instrument to your local Ethernet network.*

---

Perform the following steps to configure the network parameters of the instrument:

1. Connect an Ethernet cable between the **Management Port** on the instrument and the Ethernet port on a standalone computer. (See Figure 6 on page 17.)
2. Log on to the instrument:

---

**NOTE.** *You can view the current IP address of the Management Port by pressing and holding the green Check Mark button on the front of the instrument. The top line of the display lists the IP address assigned to the Management Port.*

---

- a. Enter the IP address of the Management Port in the address box of a Web browser such as Internet Explorer. This opens the Sentry Log In page.
- b. In the Sentry Log In page, enter the user name and password for your instrument and then click **Log In**. This opens the Sentry home page.

---

**NOTE.** *The factory default user name and password for your instrument are provided on the configuration document that was shipped with the instrument. The user name and password values listed on the document are case sensitive.*

---

3. If you are going to continue to operate the instrument directly from a standalone computer after installation, perform the following steps. Otherwise, proceed to step 4.

---

**NOTE.** *The following procedure assumes that you want to change the network parameters on the instrument to match those on your computer. If desired, you can instead change the network parameters on the computer to match those on the instrument.*

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- a. Make a note of the network IP, subnet mask, and gateway addresses on your computer.
- b. In the Sentry home page, select **Configure > System Settings**.
- c. In the System Settings page, make the following entries and then click the **Save Settings** button:
  - In the **LAN2 IP** field, enter an IP address that is one digit lower than the IP address assigned to the computer. For example, if the computer has an IP address of 10.0.10.202, then configure the LAN2 IP address on the instrument to be 10.0.10.201.
  - In the **Netmask** and **Gateway** fields, enter the same addresses as the subnet mask and gateway addresses on the computer.
4. If you are going to operate the instrument from a computer on your local Ethernet network after installation, perform the following steps:
  - a. Contact your local network administrator for the correct IP, subnet mask, and gateway addresses to use for the instrument.



**CAUTION.** *To prevent communication conflicts on your Ethernet network, be sure to ask your local network administrator for the correct IP, subnet mask, and gateway addresses before you connect the instrument to your local Ethernet network.*

---

- b. In the Sentry Series home page, select **Configure > System Settings**.
- c. In the System Settings page, enter the addresses you received from your network administrator in the **LAN2 IP**, **Netmask**, and **Gateway** fields.
- d. Click the **Save Settings** button to save the changes.
- e. After the network configuration changes are saved, close the Sentry Series window on the standalone computer and connect an Ethernet cable from the Management Port on the instrument to the Ethernet hub port of your local network. You can now access the instrument from a computer on your network.

## Video input configuration

After you complete the network installation, you will be able to configure the video input(s). From the Sentry Home page, use the **Configure > MPEG Input Settings** menu selection to configure the necessary video input parameters.

The available configuration parameters depend on the type of video input installed on your instrument (ASI, RF, GigE, dual GigE, or 10GbE). See the User Guide for your Sentry monitor for information about how to configure the video inputs for your instrument. (See page 2, *Product documentation*.)

## Controls and connections

### Front panel controls

The front panel of the Sentry Series monitors provide the following controls:

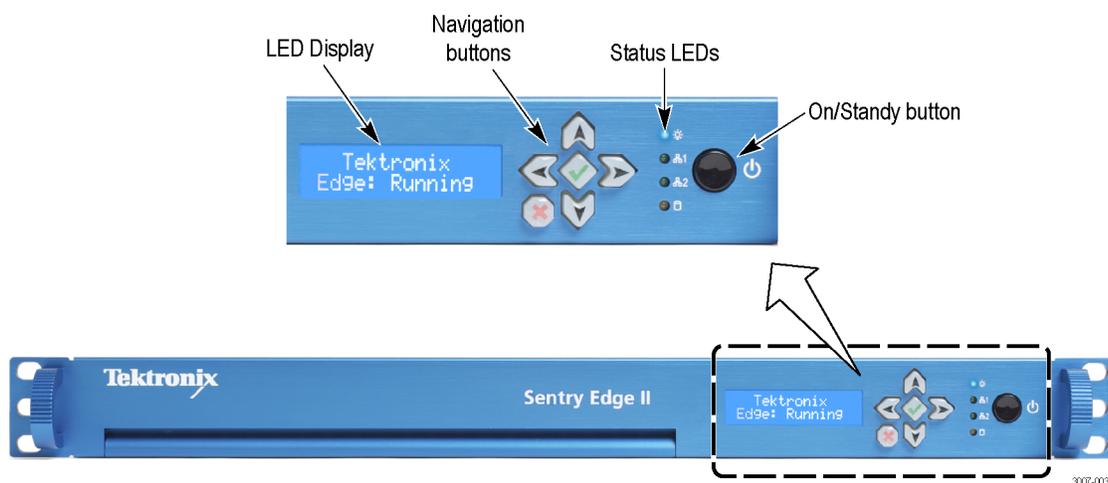


Figure 4: Front panel controls

**LED display** The LED display shows the current status of the instrument. Under normal operation, the readout will display “Tektronix <Sentry model>: Running” (for example, Tektronix Edge: Running).

Depending on the status of the instrument, you may see additional status messages such as Rebooting, Shutdown, Stopped, etc. When errors are encountered, associated error messages are displayed.

**Navigation buttons**

Use the navigation buttons to perform the following tasks:

- Use the left / right arrow buttons to adjust the brightness of the LED display.
- Press and hold the green Check Mark button to view the IP addresses of the instrument on the LED display. The top line lists the IP address of the Management Port; the bottom line lists the IP address of the IP Video port.

---

**NOTE.** The up / down arrow buttons and the red X button have no function.

---

**Status LEDs**

The status LEDs indicate the following information about the state of the instrument:

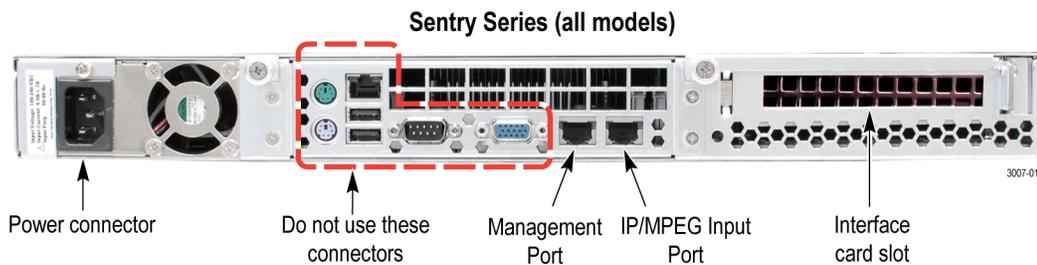
**Table 4: Status LED indicators**

Item	Description
	Illuminates when the instrument is powered on.
	Illuminates when an Ethernet cable is connected to the Management Port and there is activity on the port.
	Illuminates when an Ethernet cable is connected to the IP Video port and there is activity on the port.
	Illuminates when there is hard drive activity.

**On/Standby button**

Use the On/Standby button to power the instrument on and off. (See page 12, *Power-on and power-off procedures.*)

**Rear panel connectors**



**Figure 5: Sentry Series rear panel connectors**

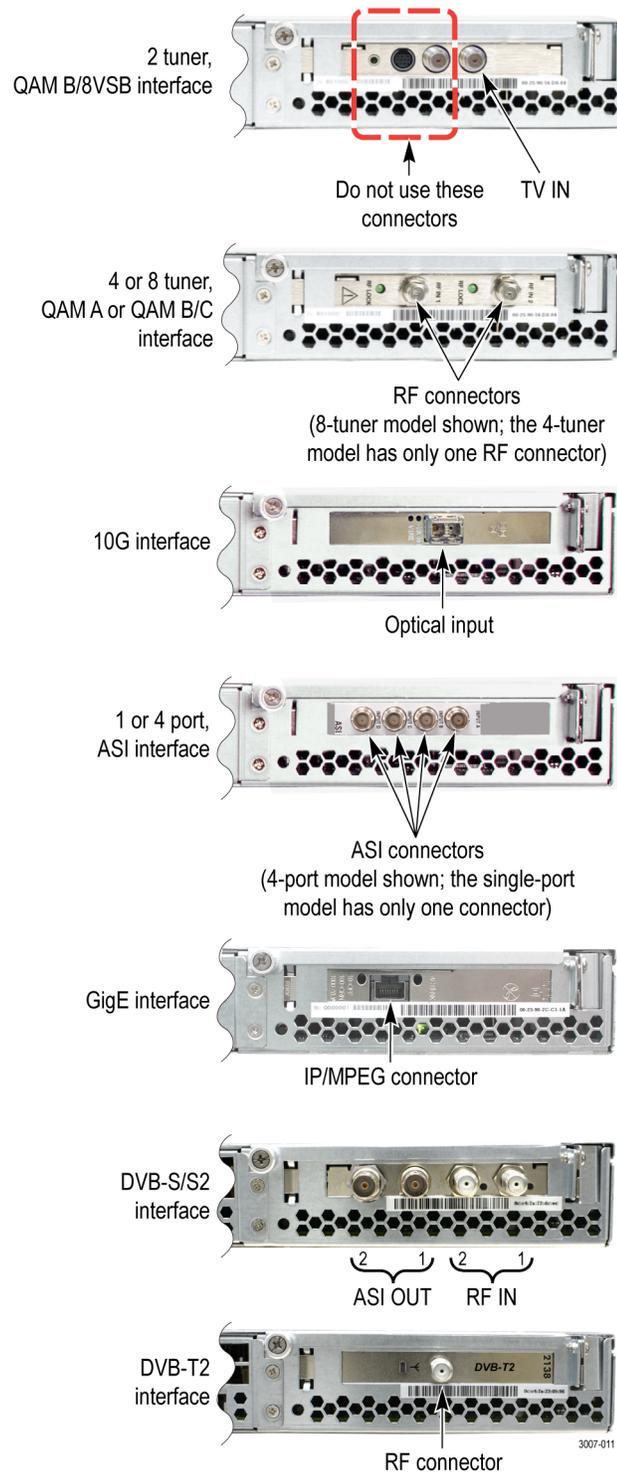


Figure 6: Sentry Series interface card connectors

## Compliance information

This section lists the EMC (electromagnetic compliance), safety, and environmental standards with which the instrument complies.

### EMC compliance

#### EC Declaration of Conformity – EMC

Meets intent of Directive 2014/30/EU for Electromagnetic Compatibility. Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Communities:

**EN 55103.** Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. <sup>1 2 3</sup>

- Environment E4 – controlled EMC environment
- Part 1 Emission
  - EN 55022 Class A radiated and conducted emissions
  - EN 55103-1 Annex A. Radiated magnetic field emissions
- Part 2 Immunity
  - IEC 61000-4-2. Electrostatic discharge immunity
  - IEC 61000-4-3. RF electromagnetic field immunity <sup>4</sup>
  - IEC 61000-4-4. Electrical fast transient / burst immunity
  - IEC 61000-4-5. Power line surge immunity
  - IEC 61000-4-6. Conducted RF Immunity
  - IEC 61000-4-11. Voltage dips and interruptions immunity
  - EN 55103-2 Annex A. Radiated magnetic field immunity

**EN 61000-3-2.** AC power line harmonic emissions

**EN 61000-3-3.** Voltage changes, fluctuations, and flicker

#### European contact.

Tektronix UK, Ltd.  
Western Peninsula  
Western Road  
Bracknell, RG12 1RF  
United Kingdom

**EMC compliance** Meets the intent of Directive 2014/30/EU for Electromagnetic Compatibility when it is used with the product(s) stated in the specifications table. Refer to the EMC specification published for the stated products. May not meet the intent of the directive if used with other products.

**European contact.**

Tektronix UK, Ltd.  
Western Peninsula  
Western Road  
Bracknell, RG12 1RF  
United Kingdom

- 1 This product is intended for use in nonresidential areas only. Use in residential areas may cause electromagnetic interference.
- 2 For compliance with the EMC standards listed here, high quality shielded interface cables should be used.
- 3 Inrush current at initial turn-on 2.5 A; after 5 second mains interruption 2.5 A.
- 4 Sentry Edge II only: By design, the QAM tuner input is sensitive to external RF interfering fields at the tuned carrier frequency. Always connect only high-quality shielded cables to the RF input. To optimize performance when the instrument is subjected to electromagnetic fields (as defined in IEC 61000-4-3 at the tuned carrier frequency), the RF signal level at the input of the QAM tuners should be at least -25 dBm.

**Australia / New Zealand  
Declaration of  
Conformity – EMC**

Complies with the EMC provision of the Radiocommunications Act per the following standard, in accordance with ACMA:

- EN 55022. Radiated and conducted emissions, Class A, in accordance with EN 55103-1.

**Australia / New Zealand contact.**

Baker & McKenzie  
Level 27, AMP Centre  
50 Bridge Street  
Sydney NSW 2000, Australia

## Safety compliance

This section lists the safety standards with which the product complies and other safety compliance information.

### EU declaration of conformity – low voltage

Compliance was demonstrated to the following specification as listed in the Official Journal of the European Union:

Low Voltage Directive 2006/95/EC.

- EN 61010-1. Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements.

### U.S. nationally recognized testing laboratory listing

- UL 61010-1. Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements.

### Canadian certification

- CAN/CSA-C22.2 No. 61010-1. Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements.

### Additional compliances

- IEC 61010-1. Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements.

### Equipment type

Test and measuring equipment.

### Safety class

Class 1 – grounded product.

### Pollution degree descriptions

A measure of the contaminants that could occur in the environment around and within a product. Typically the internal environment inside a product is considered to be the same as the external. Products should be used only in the environment for which they are rated.

- Pollution degree 1. No pollution or only dry, nonconductive pollution occurs. Products in this category are generally encapsulated, hermetically sealed, or located in clean rooms.
- Pollution degree 2. Normally only dry, nonconductive pollution occurs. Occasionally a temporary conductivity that is caused by condensation must be expected. This location is a typical office/home environment. Temporary condensation occurs only when the product is out of service.

- Pollution degree 3. Conductive pollution, or dry, nonconductive pollution that becomes conductive due to condensation. These are sheltered locations where neither temperature nor humidity is controlled. The area is protected from direct sunshine, rain, or direct wind.
- Pollution degree 4. Pollution that generates persistent conductivity through conductive dust, rain, or snow. Typical outdoor locations.

**Pollution degree rating**

Pollution degree 2 (as defined in IEC 61010-1). Rated for indoor, dry location use only.

**Measurement and overvoltage category descriptions**

Measurement terminals on this product may be rated for measuring mains voltages from one or more of the following categories (see specific ratings marked on the product and in the manual).

- Category II. Circuits directly connected to the building wiring at utilization points (socket outlets and similar points).
- Category III. In the building wiring and distribution system.
- Category IV. At the source of the electrical supply to the building.

---

**NOTE.** *Only mains power supply circuits have an overvoltage category rating. Only measurement circuits have a measurement category rating. Other circuits within the product do not have either rating.*

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**Mains overvoltage category rating**

Overvoltage category II (as defined in IEC 61010-1).

## Environmental considerations

This section provides information about the environmental impact of the product.

### Product end-of-life handling

Observe the following guidelines when recycling an instrument or component:

**Equipment recycling.** Production of this equipment required the extraction and use of natural resources. The equipment may contain substances that could be harmful to the environment or human health if improperly handled at the product's end of life. To avoid release of such substances into the environment and to reduce the use of natural resources, we encourage you to recycle this product in an appropriate system that will ensure that most of the materials are reused or recycled appropriately.



This symbol indicates that this product complies with the applicable European Union requirements according to Directives 2012/19/EU and 2006/66/EC on waste electrical and electronic equipment (WEEE) and batteries. For information about recycling options, check the Tektronix Web site ([www.tek.com/productrecycling](http://www.tek.com/productrecycling)).

**Perchlorate materials.** This product contains one or more type CR lithium batteries. According to the state of California, CR lithium batteries are classified as perchlorate materials and require special handling. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate) for additional information.