

GERMICIDAL ULTRAVIOLET MONITOR







The Standard of Excellence In Ultraviolet

Manufacturers / Engineers / Sales / Service Germicidal Ultraviolet • Equipment & Lamps

375 Marcus Boulevard Hauppauge, NY 11788 • USA

Call: (631) 273-0500 Mon-Fri, 7am-6pm EST

Fax: (631) 273-0771

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Ultraviolet Water Purifier MONITORING OPTIONS

The **GUARDIAN™ Germicidal Ultraviolet Monitor** visually indicates the level of germicidal ultraviolet energy that penetrates the quartz sleeve and water within the water purifier. The use of a germicidal ultraviolet monitor is recommended by the United States Public Health Service in "Criteria for the Acceptability of an Ultraviolet Disinfection Unit."

GUARDIAN™ Germicidal Ultraviolet Monitor will detect reduction of ultraviolet levels due to:

- Fouling or deposits on the quartz sleeve.
- Poor ultraviolet transmission through the water. Color, turbidity, and organic or other impurities in the water can reduce or interfere with the transmission of ultraviolet rays.
- · Lamp outage or ballast failure.
- Depreciation of the lamp output due to usage or other cause.
 Lamp output gradually depreciates with use. Lamp replacement is recommended once a year or every 10,000 hours.

All **GUARDIAN**[™] **Germicidal Ultraviolet Monitors** provide outputs to control the operation of an optional **Promate**[™] **Solenoid Valve** and/or optional **Promate**[™] **Remote Audio Alarm**.

The **GUARDIAN**™ **Ultraviolet Monitor** is available in two models: **Digital** and **Digital Remote**.

All **GUARDIAN™ Ultraviolet Monitors** (Digital or Digital Remote) can either be purchased and installed with the water purifier, or at a later date for an existing installation.

*Note: The following Promate™ Optional Accessories are available for use with GUARDIAN™ Digital or Digital Remote.





GUARDIAN™ ASSIST (See p.3)







GERMICIDAL ULTRAVIOLET MONITOR

Digital

Direct Mount Monitor





Digital Remote

Remote Mount Monitor





Rear View

Ultraviolet Water Purifier MONITORING OPTIONS

Digital – Direct Mount Monitor

The <u>Digital</u> GUARDIAN™ Germicidal Ultraviolet Monitor is available in two low-voltage configurations: a 12v Model and a 110/220v Model, which uses a multiplug configuration 12v adapter to operate. Other features of this model include a 2-minute delay for a solenoid valve operation, and an internal audio alarm. (<u>Note</u>: these features are disabled when shipped. See owners manual for instructions to enable these features.)

This model also provides several outputs from an RJ45 modular jack for remote monitoring of the germicidal ultraviolet water purifier's operation:

- 4–20mA Output: Provides current for remote display of ultraviolet intensity.
- Dry Contacts: Provide contacts for remote indication of ultraviolet trip levels.
- 12v DC Output: Provides power for a low-voltage external audio alarm.

The <u>Digital</u> GUARDIAN™ Germicidal Ultraviolet Monitor is available in two mounting configurations: Mounted directly to the water purifier or remotely.

Mounted directly onto the UV water purifier, the sensor probe is installed into the sight port fitting of the water purifier. The collar on the bottom of the **GUARDIAN™ Germicidal Ultraviolet Monitor** is secured over the sensor probe. Older model water purifiers may require a reducing bushing to properly mount the newer sensor probes. If unsure whether the reducing bushing is required, contact the factory.

An RJ45 modular cable is required to interconnect between the **GUARDIAN**[™] **Germicidal Ultraviolet Monitor** and other remote monitoring devices. An RJ45 modular jack adapter might be needed to interconnect the RJ45 cable and a remote monitoring device. The RJ45 modular jack adapter and the RJ45 modular cable are not included with the purchase of the **GUARDIAN**[™] **Germicidal Ultraviolet Monitor** and if required, may be purchased separately. The cable is available in three lengths; order the one which is best for your application (25ft., 50ft., or 100ft.). Contact the factory with specific requirements.

A Dual Monitor Kit is available for the **SANITRON**® S5,000C, which includes 2 Monitors, one for each chamber. This allows the Monitors to react to each UV chamber independently, but they will work together to shut down water flow if UV falls below its trip point.

<u>Digital Remote</u> – Remote Mount Monitor

The <u>Digital Remote</u> GUARDIAN™ Germicidal Ultraviolet Monitor is intended for use in locations away from the water purifier it is monitoring. In all other respects, the remote monitor operates in the same manner as the standard <u>Digital</u> GUARDIAN™ Germicidal Ultraviolet Monitor. The ultraviolet sensor, instead of being mounted inside the monitor, is mounted in the sturdy, waterproof main sensor body, which when coupled with the lower sensor body becomes the remote sensor probe. A cable connects the remote sensor probe to a socket located on the back of the monitor. The standard cable length, supplied with the digital remote monitor, is 10 meters (32.8-feet). The cable length may be extended. Please contact the factory with specific requirements. Available for use with all SANITRON® and MIGHTY* PURE® Germicidal Ultraviolet Water Purifiers.

Water Purifier	Digital Direct Mount Monitor		Digital Remote Remote Mount Monitor	
MIGHTY*PURE®/SANITRON®	12v	110/220v	12v	110/220v
	30-8255	30-8251	30-8257	30-8253
SANITRON® S2400B/C	30-8254	30-8250	30-8256	30-8252
SANITRON® S5,000C	_	30-8249	_	_

GUARDIAN[®]

GERMICIDAL ULTRAVIOLET MONITOR EXTENSION



Face View



Bottom View

Ultraviolet Water Purifier MONITORING OPTIONS

GUARDIAN™ ASSIST Germicidal Ultraviolet Monitor Extension

The **GUARDIAN**[™] **ASSIST** is designed to remotely indicate the intensity level displayed on the Digital **GUARDIAN**[™] **Germicidal Ultraviolet Monitor**.

- The GUARDIAN™ ASSIST converts a 4–20 mA signal from the Digital GUARDIAN™ Germicidal Ultraviolet Monitor to an intensity level displayed on the monitor face. A 4 mA signal would read 0 and a 20 mA signal would read 120.
- The GUARDIAN™ ASSIST intensity reading will be the same as the Digital GUARDIAN™ Germicidal Ultraviolet Monitor +/- 2%.

When the Digital **GUARDIAN™ Germicidal Ultraviolet Monitor** detects a germicidal ultraviolet energy level which is acceptable:

- The GUARDIAN™ ASSIST will light a green LED on the front of the instrument panel with the heading "NORMAL."
- The display should read between 30 and 120.

When the Digital **GUARDIAN™ Germicidal Ultraviolet Monitor** detects a germicidal ultraviolet energy level which is unacceptable:

- The GUARDIAN™ ASSIST will light a red LED on the front panel with the heading "LOW."
- The display should have a reading below 30.

Internal Audio Alarm:

When the Digital **GUARDIAN**™ **Germicidal Ultraviolet Monitor** detects a germicidal energy level which is unacceptable, an audio alarm will sound on the **GUARDIAN**™ **ASSIST**. The alarm can be disabled by an **ON/OFF** switch on the side of the unit.

Connecting the **GUARDIAN™ ASSIST** to the Digital **GUARDIAN™** Monitor:

- 1 RJ45 Output
- 2 12v DC GUARDIAN™ Power Adapter
- 3 12v DC GUARDIAN™ ASSIST Power Adapter
- 4 RJ45 Input





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Lamp Status

GERMICIDAL ULTRAVIOLET LAMP STATUS ALARM





Shown with Optional Power Adapter

Lamp & **Ballast Status**









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Ultraviolet Water Purifier MONITORING OPTIONS

The **STERALERT™ Germicidal Ultraviolet Lamp Status Alarm** monitors visible light emitted through the sight port plug of the UV water purifier and activates an audible alarm when visible light fails.

- · Easy installation, no tools required
- · Mounts on the sight port plug
- · Operates on a 9v battery
- · Monitors the visible light emitted by the ultraviolet lamp (does not monitor the germicidal ultraviolet intensity)
- · Warns of lamp or power failure
- Produces a high frequency tone, pulsed at 2 to 3 cycles per second
- · Available with Dry Contact for connection to PLC
- · Optional Remote Sounder available
- · Optional 120v 60Hz Power Adapter available

Available for use with these Germicidal UV Water Purifiers:

- SANITRON® all models
- MIGHTY★PURE® all models

The SENTRY™ Safety Sensor provides constant monitoring of the water purifier's ballast and germicidal lamp operation to give an indication of ballast and germicidal lamp status. The **SENTRY™ Safety Sensor** is capable of operating an optional **Promate[™] Audio Alarm** and/or **Promate[™] Solenoid Valve**.

- · Easy installation
- Plug SENTRY[™] into an electrical outlet, then plug water purifier into SENTRY[™]
- Operates optional Promate[™] Solenoid Valve and/or Promate[™] Audio Alarm
- Easily adaptable for use with other water purifier brands
- · Warns of lamp failure
- Available for 120v 50/60Hz and 220v 50/60Hz water purifiers operating with electronic ballasts

Available for use with most Germicidal UV Water Purifier models, including:

- SANITRON®
- MIGHTY*PURE®
- MINIPURE®
- Bio-Logic®

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