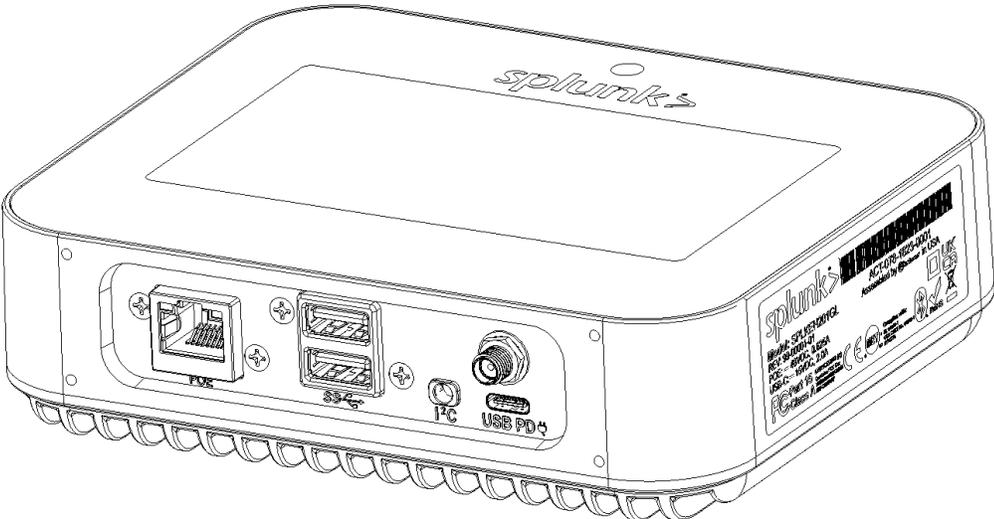


Splunk® Edge Hub Safety Manual

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SPLKEH201GL



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1. Important Safety Information

Customer safety is of foremost importance to Actineon. Actineon's products are developed to be safe and effective products for deployment by a variety of customers. However, PC products, network devices, and gateways are electronic devices that can cause both personal harm and property damage, especially when misused. To reduce these risks, read and follow the safety advice provided for this equipment. By following this advice, you create a safer work environment for those that may be influenced by use of this equipment.

1. Safety and Advisory Conventions

There are four types of safety and advisory conventions used in this guide. These conventions include: WARNING, CAUTION, EMISSIONS and NOTES. Graphical representations of these conventions accompanied by their meaning in context of this guide are provided below.



WARNING

A WARNING symbol indicates the potential for personal harm or injury and advises the user how to avoid such harm.



CAUTION

A CAUTION symbol indicates the potential for equipment damage and advises the user how to avoid such damage.



RADIATED EMISSIONS

A RADIATED EMISSIONS symbol indicates the potential for excessive electromagnetic emissions and advises the user how to avoid such emissions.



HIGH TEMPERATURES

A HIGH TEMPERATURE symbol indicates the potential for excessive heat and advises the user how to avoid such injury or equipment damage caused by high temperatures.

NOTES



A NOTE symbol helps make important information stand out.

2. Warning Against Use in High Risk Activities



The Edge Hub is **NOT** intended for use in life support systems; in the operation, navigation or traffic control of aircraft; in monitoring or control of nuclear power plants; or for any other use where failure of the system could lead to the death or personal injury of its users or those influenced by its use, or severe environmental damage.

3. Do Not Open the Edge Hub



The Edge Hub contains **no field serviceable or upgradeable parts. DO NOT OPEN THE SYSTEM UNIT.** Only qualified service personnel should open the Edge Hub. Any attempt to open the enclosure and access the interior may create a personal hazard, cause damage to this or other equipment, or create excessive electronic emissions.



In addition, opening the Edge Hub voids the product warranty.

4. Common Safety and Use of the Edge Hub

Read and understand all safety related material furnished with the system before using the system. Use of procedures other than those specified in this documentation may create a personal hazard, cause damage to this or other equipment, or create excessive electronic emissions.

Common guidelines:

- Do not install this product or make any electrical or cabling connections during an electrical storm.
- Connect all AC power cords to this equipment and any attached peripherals to a properly wired and grounded electrical outlet.
- Avoid exposing the system and attached cables to extreme temperature, excessive vibration, or excessive radiated emissions.
- Follow the recommended guidelines for orientation, clearance and airflow surrounding the chassis included in this manual.

- Ensure that nothing unintended rests on cables attached to the Edge Hub, and that the attached cables are not located where they can be stepped on or tripped over.
- Ideally use a surge protector, line protector, or uninterruptible power supply to help protect your system from sudden increases or decreases in electrical power.
- When inserting or removing cables attached to the Edge Hub, do so by gripping the connector associated with the cable firmly and pulling or pushing on the connector. Do not insert or remove cables attached to the Edge Hub by pushing or pulling on the cable or cord. When possible, use only one hand in connecting or disconnecting power and signal cables.
- Only use the AC power cable supplied with the Edge Hub, or a cable that has been authorized as a replacement cable by Actineon, or a safety certified 4 Pair CAT5E or better cable for
- Refer service and repair to a qualified professional.

5. When to Remove Power from the Edge Hub



As outlined above, either the AC power cord to the Edge Hub must be unplugged or the AC source to the Edge Hub must be removed in order to completely remove power within the Edge Hub.

AC power should be removed from the Edge Hub if any of the following circumstances are true:

- You intend to move the system.
- You notice a cord or cable that has been cut or frayed, especially the AC power cord.
- The enclosure is damaged or dented in some fashion beyond normal wear and tear.
- You see or smell smoke coming from the system or components surrounding the system.
- You suspect the system needs servicing for any other reason.

The AC power cord and PoE cable must be unplugged or the source of the AC power to the system must be removed to completely remove power from the system. Even when the system appears to be off, if the AC power cord or PoE is plugged in and an AC power source is available, voltage and current within the system may create a personal hazard or cause damage to this or other equipment.

6. Cleaning the Edge Hub



Routine cleaning or servicing of the Edge Hub is not required. Keep the computer and workspace around the Edge Hub clean and free of dust, dirt, and other particulate matter.

If a buildup of dust or lint is noted on or in the machine, or if cleaning is required for the exterior case, follow the guidelines provided below.

Things to avoid when cleaning the Edge Hub

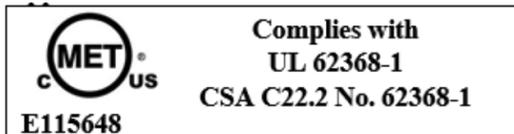
- Do not spray any type of liquid or aerosol on or in the Edge Hub.
- Do not use solvents, abrasives or flammable materials on or around the Edge Hub.
- Avoid getting excessive amounts of moisture on or in the Edge Hub.

How to clean the Edge Hub

- Shut down the system.
- Remove all cables and cords attached to the system.
- Vacuum the vent holes on the front and rear panels of the enclosure to draw out lint and other particulate matter that may have gathered inside.
- Spray a small amount of detergent or cleaning solution on a clean, lint-free cloth and use the cloth to wipe down the exterior of the system.

2. Regulatory, Compliance and Safety Statements (Preliminary)

1. US and Canadian Safety Standards



The Edge Hub is for use with safety certified products only.

The Edge Hub has met the safety requirements UL 62368-1 for the US markets and CSA C22.2 No. 62368-1 for the Canadian markets.

2. Federal Communications Commission (FCC) Declaration of Conformity



This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with instructions contained in this manual, may cause harmful interference to radio and television communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one or more of the following measures:

- REORIENT OR RELOCATE THE RECEIVING ANTENNA
- INCREASE THE SEPARATION BETWEEN THE EQUIPMENT AND THE RECEIVER
- CONNECT THE EQUIPMENT INTO AN ELECTRICAL OUTLET ON A CIRCUIT DIFFERENT FROM THAT OF THE RECEIVER.
- CONSULT THE DEALER OR AN EXPERIENCED AUDIO/VIDEO TECHNICIAN

NOTES:

Connecting this device to peripheral devices that do not comply with Class B requirements or using an unshielded peripheral data cable could also result in harmful interference to radio or television reception.

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

3. Industry Canada Class B Emission Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

4. Power Cord Notice

For your safety, Actineon provides a power cord with a grounded attachment plug to use with this product. To avoid electrical shock, always use the power cord and plug with a properly grounded outlet.

Power cords provided by Actineon in the United States and Canada are upheld to strict safety, emissions, and environmental regulations.

For units intended to be operated in the USA and Canada at 115 volts: Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length and a tandem blade, grounding-type attachment plug rated 15 amperes, 250 volts. In all cases, the cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

5. Polyvinyl Chloride (PVC) Cable and Cord Notice



Warning: It has been asserted that handling electronic cables, wires and cords with polyvinyl chloride (PVC) insulation or jacketing may result in exposure to lead or other substances identified by the state of California to cause cancer or reproductive toxicity.

The following statement applies to users in the state of California, U.S.A. **Perchlorate material: special handling may apply. Go to:**

<http://www.dtsc.ca.gov/hazardouswaste/perchlorate>

6. Directive 2017/2102 on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Actineon, Inc. confirms that Edge Hub complies with the chemical concentration limitations set forth in the Directive 2017/2102/EC of the European Parliament (RoHS). The Edge Hub does not contain in excess homogenous material that:

- contain Cadmium (Cd) in excess of 0.01% by weight (100 ppm)
- contain Hexavalent Chromium (Cr VI) in excess of 0.1% by weight (1,000 ppm)
- contain Lead (Pb) in excess of 0.1% by weight (1,000 ppm) in any form
- contain Mercury (Hg) in excess of 0.1% by weight (1,000 ppm)
- contain Polybrominated Biphenyl (PBB) or Polybrominated Diphenyl Ether (PBDE) in excess of 0.1% by weight (1,000 ppm)
- contain Lead (Pb) in excess of 0.35% by weight (3,500 ppm) for Steel Alloys
- contain Lead (Pb) in excess of 4.0% by weight (40,000 ppm) for Copper Alloys
- contain Lead (Pb) in excess of 0.40% by weight (4,000 ppm) for Aluminum Alloys

Note: Lead usage in some components is exempted by the RoHS Annex until 21 Jul, 2024; therefore, higher lead concentration may be found in some modules (>0.1%).

7. Waste electrical and electronic equipment (WEEE) notices



Actineon encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed.

The WEEE mark applies only to countries within the European Union (EU) and Norway. Appliances are labeled in accordance with European Directive 2012/19/EU concerning waste electrical and electronic equipment (WEEE).

The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

Users of electrical and electronic equipment (EEE) with the WEEE marking per Annex IV of the WEEE Directive must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to them for the return, recycle, and recovery of WEEE and minimize any potential effects of EEE on the environment and human health due to the presence of hazardous substances.

3. System Information

The Edge Hub is designed to be an OEM product and is not intended for user-upgrades or service. Adding, removing or changing system components can create a safety hazard and voids Actineon's warranty. This unit should only be serviced by trained personnel.

1. Installation, setup, and instructions for use

For product specification information, see the [Splunk Edge Hub Product Specifications](#) document. For system installation, setup, and instructions for use, see the [Splunk Edge Hub User Manual](#) document.



Warning: Unit may be too hot to touch in situations of high ambient temperatures or extremely high load. Always exercise caution before touching the unit.

Instructions for checking correct functions and verifying safe state after repair

- Power on the Edge Hub and check that the Edge Hub boots up correctly and that the operating system loads without any errors.
- Visually inspect the Edge Hub for any possible damage or issues.
- Check the display for proper resolution and color quality. Make sure that there is no flickering or distortion of the image.
- Check the network connectivity by running a diagnostic test or by trying to access the internet. Make sure that the Edge Hub can connect to the network and that it has internet access.
- Check the installed software by opening a few common applications to ensure they are running and working properly.
- Run a diagnostic tool such as the built-in system utility or third-party software to check for any errors or issues on the Edge Hub.



- Avoid prolonged contact of the AC adaptor or Edge Hub Exterior to prevent skin irritation and/or heat injury. The device becomes hot when in use for long periods or in high ambient temperatures.
- Do not disassemble, modify, tamper with or repair the adaptor
- Test the Edge Hub's performance by running benchmarking software to check the CPU, GPU, and memory performance.

2. Intended Use

Some of the intended uses of this Edge Hub include but are not limited to:

Process Control: The Edge Hub can be used to monitor and control industrial processes, your product such as temperature, pressure, and flow.

Data Collection and Analysis: The Edge Hub can be used to collect, process, and analyze data from various industrial sensors and devices.

It is important to note that this is a general description, and the specific intended use of the Edge Hub will depend on the model and configuration. refer to the specific product manual for detailed information on the intended use and capabilities of your Edge Hub. This product is also not certified for medical life support systems, air traffic control, nuclear system management, and other life-critical computing requirements.

4. Physical Dimensions and Mounting Provisions

Physical dimensions and locations of mounting holes for Edge Hub are provided in the [Splunk Edge Hub Hardware User Manual](#).

The device does not need to be grounded because it comes with an insulated case and an external power adapter. The power adapter comes grounded against short circuits with a +12V short circuit protector. Ensure that the power adapter is correctly plugged in and functional to ensure grounding.

In addition, the Edge Hub includes four cushioned mounting pads on the bottom side of the enclosure. These mounting pads are largely cosmetic in nature and serve to minimize scratches to the mounting surface. They are also somewhat of a noise and vibration damper that help to eliminate metal to metal contact between the bottom of the Edge Hub and an adjacent metal surface.

5. Physical Orientations for Safely Mounting the Edge Hub

While no specific mounting orientation is required, the following mounting provisions promote long, trouble-free operation for the Splunk Edge Hub:

- Do not place anything directly against the Edge Hub cover, including cables, shelves, additional equipment, papers, etc.
- Keep the heat sink of the Edge Hub clean and free of physical obstructions, including loose cables, lint, dirt, etc.
- Ensure that cabinet fans within the system (if present) direct at least a modest amount of air flow across the Edge Hub chassis.



Failure to provide adequate structural strength or proper mounting for this accessory can result in serious personal injury or damage to equipment. It is the

installer's responsibility to make sure the structure to which this accessory is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the Splunk Edge Hub.

Before mounting the Mount to your Splunk Edge Hub Edge Hub, ensure that you have all the necessary tools and components. Make sure the mount is securely attached to the Edge Hub and the screws are tightened to the proper torque specifications. Verify that the Splunk Edge Hub Edge Hub is securely mounted on the bracket mount by gently tugging on it in various directions. If it feels secure, the installation is complete.

The Edge Hub should only be mounted on appropriately safe surfaces such as properly attached designated mounts (Monitor Mounts, Desk Mounts, Wall Mounts, Server Racks, etc.), strong metal surfaces or walls, properly secured and strong horizontal surfaces, and load bearing wall studs. Do not attach the Splunk Edge Hub to thin, weak, or unsecured walls, mounts, or horizontal surfaces. Examples of unsafe surfaces include but are not limited to; drywall, plaster, cardboard, phone mounts, foam, bulletin boards, thin plywood, or thin plastic surfaces.

6. Splunk Edge Hub Heatsink and Heat Ventilation

The Splunk Edge Hub has a heatsink cooling from the inside of the chassis out to the bottom of the chassis. Interfering with the heat sink of the Splunk Edge Hub can cause overheating, which results in slower performance, malfunction, and even permanent damage to the device.

Orient the Splunk Edge Hub, surrounding peripherals, and cables to minimize obstructions in areas near the Splunk Edge Hub.



Actineon recommends one inch (25mm) of relatively free space away from the sides on the Splunk Edge Hub. Failure to do so may cause overheating in higher ambient temperatures.