

# AP-S20

## AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT

### OWNER'S MANUAL





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### PRODUCT SUMMARY

The AtlasIED AP-S20 AC Power Distribution & Surge Suppressor Unit has been designed to meet most installation requirements for AC power distribution and equipment power protection.

The AP-S20 features noise filtering for unwanted Radio Frequency Interference (RFI) that is commonly introduced into AC lines by nearby radio transmitters or wireless products. The benefit of these filters can be seen on video products or audibly by reducing static pops and external signal interference in sound reinforcement systems.

Unstable AC Mains voltage is one of the main reasons for equipment failure. The amount of energy that can be injected into the power system can be immense with voltages reaching 6kV or current peaks of 3000A. These spikes are very fast and usually only last for a very short period of time. The AP-S20's circuitry is very fast and can suppress unwanted energy within a nanosecond response and sustain the suppression up to 2 milliseconds, thus ensuring virtually trouble-free protection. If the suppression circuitry is damaged, the AC Protect LED will turn off to indicate a fault has occurred.

The AP-S20 offers power management control, noise filtering, and protection against abnormal voltages, spikes, and surges, making it the most compact, effective power management protection system on the market today.

### KEY FEATURES

- 9 Total Outlets
  - 7 Rear Panel Switched Outlets
  - 1 Rear Panel Unswitched Outlet
  - 1 Front Panel Unswitched Convenience Outlet
- 12 gauge 9' (2.74m) Cord
- RFI Noise Filtering to Reduce Radio Frequency Interference
- Circuit Breaker Protection @ 20A
- Voltage Protection Rating
  - Clamping Voltage L-N: 400, L-G: 500, N-G: 400 / 3kA, 8/20 $\mu$ s
  - Max. Spike Clamping Voltage 6kV, 1.2/50 $\mu$ s
- AC Protect Active Indicator

### AUDIO APPLICATIONS

The AP-S20 was designed to be flexible with features that allow it to be used in a variety of applications. The AP-S20 can be used solely for protection against voltage surges or for AC distribution. If fuzzy video or frequent static pops occur, the AC power conditioning may eliminate or reduce those inconveniences. The following are just a few examples of applications where the AP-S20 can be used:

- Restaurants
- Houses of Worship
- Schools
- Home Theaters
- Office Buildings
- Sports Bars

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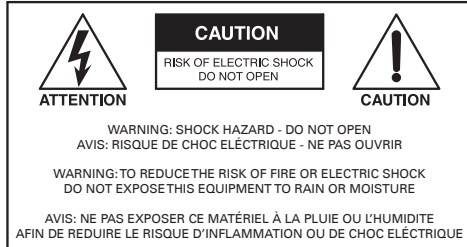
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#### IMPORTANT SAFETY INSTRUCTIONS




The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this device near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other device that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the device.
11. Only use attachments / accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the device. When a cart is used, use caution when moving the cart / device combination to avoid injury from tip-over.



13. Unplug this device during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled, or objects have fallen into the device, the device has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
16. **WARNING:** To reduce the risk of fire or electric shock, this device should not be exposed to dripping, splashing, rain, or moisture, and objects filled with liquids, such as a vase, should not be placed on this device.
17. To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the receptacle.
18. The mains plug of the power supply cord shall remain readily operable.
19.  Protective earthing terminal. The apparatus should be connected to a mains socket with a protective earthing connection.

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## AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT



### OWNER'S MANUAL

#### IMPORTANT SAFETY INSTRUCTIONS (CONTINUED)



##### WARNING - When The Device Is In Use

- WARNING: For the terminals marked with symbol of ⚡ may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the used of ready-made leads or cords.
- WARNING: The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.
- WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.
- To prevent electric shock, do not remove the product cover as there are high voltage components inside. Refer all servicing to AtlasIED.
- Should any of the following irregularities occur during use, immediately switch off the power, disconnect the power cord from the AC outlet and contact AtlasIED. Do not to attempt to continue operation with the product as this may cause fire or electric shock:
  - Smoke or strange smell coming from the unit.
  - If the product falls or the case is damaged.
  - If water or any metallic objects falls into the product.
  - If the power supply cord is damaged in any way.
  - If the unit is malfunctioning.
- Do not insert or drop metallic objects or flammable materials into the ventilation holes of the product's cover, as this may result in electric shock or fire.
- Do not place any containers with liquid or metallic objects on the top of the product. If any liquid spills into the unit, fire or electric shock may result.
- Never operate this product or touch the power supply cord during an electrical storm, electric shock may result.
- Never exceed the power rating on the product when connecting equipment. Fire and/or property damage may result.
- Operate the product only with the voltage specified on the unit. Fire and/or electric shock may result if a higher voltage is used.
- Do not modify, kink, or cut the power cord. Do not place the power cord in close proximity to heaters and do not place heavy objects on the power cord, including the product itself, doing so may result in fire or electrical shock.
- Ensure that the safety ground terminal is connected to a proper ground. Never connect the ground to a gas pipe as a catastrophic disaster may result.
- Be sure the installation of the product is stable, avoid slanted surfaces as the product may fall and cause injury or property damage.



##### CAUTION - When Installing The Product

- Plugging in or unplugging the power cord with wet hands may result in electric shock.
- Never move the unit with the power cord plugged into the wall, as damage to the power cord may result.
- When unplugging the cord from the wall, grasp the plug, NOT the cord.
- Never install this product in humid or dusty locations, nor in direct sunlight, near sources of heat, or in areas where sooty smoke or steam are present. Fire and electric shock may result.
- Keep all sides of the unit at least 3<sup>1</sup>/<sub>2</sub>" away from objects that may obstruct air flow to prevent the unit's internal temperature rise.



##### CAUTION - When The Product Is In Use

- Never place heavy objects on the product, causing it to fall and/or break, resulting in personal injury and property damage. In addition, the product itself may fall and cause injury and property damage.
- Contact AtlasIED for instructions on cleaning the inside of the unit. Large accumulations of dust inside the unit may result in heat buildup and fire.
- Ensure that the power supply plug is securely plugged into the wall outlet. Never allow dust to accumulate on the power plug or inside the wall outlet.
- When cleaning the unit or the unit is not to be operated for an extended period, unplug the power cord from the wall.

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## AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT



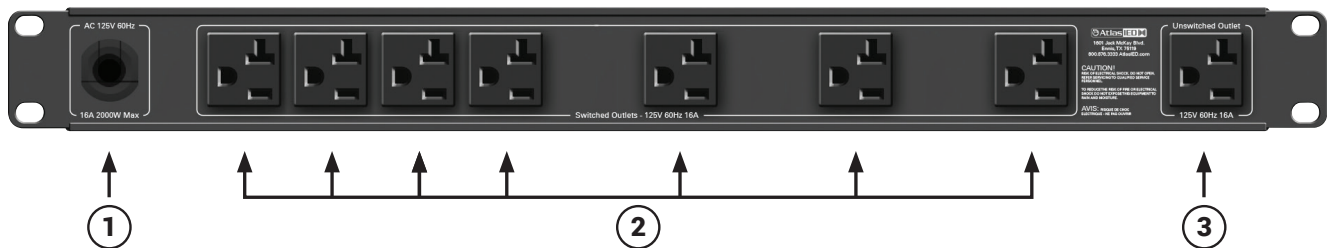
### OWNER'S MANUAL

#### FRONT PANEL DESCRIPTION



- 1. Unswitched AC Power Outlet** - The 120VAC 20A NEMA 5-20R outlet is always live when the AP-S20 power cord is plugged into an AC Mains power source and voltage is present. **Note:** The AC Mains power switch does not affect the Unswitched AC Outlet. The Unswitched Outlet is protected by the surge protection circuitry.
- 2. AC Mains Breaker** - The 120VAC 20A 2500W rated breaker will open if the combined draw of all AC outlets exceeds 20A. Note: The breaker is designed to exceed its rating for a short period of time. If the breaker is tripped, you must first remove the load from the AP-S20 and then push to reset.
- 3. Power Switch** - To turn the AP-S20 On or Off, press the switch to the ON or OFF position. This switch powers the "switched" outlets. The switch will illuminate Red when it is in the ON position.
- 4. Power AC Present LED** - This LED will illuminate Red when the AC Mains Power Switch is in the ON position.
- 5. AC Protect Active LED** - Although the Clamping Suppression circuit virtually assures protection from most transient voltage spikes and surges, nature has a way of occasionally creating electrical forces that are beyond the capabilities of any device to absorb without some degree of damage. In the rare instance that this occurs and the circuit has been damaged, the Green "AC Protect Active" LED indicator will turn Off, indicating that the AC Protect Circuitry is no longer protecting equipment connected to the Switched outlets. The unit will still operate as an AC distribution unit but the surge suppressor protection will not function until the unit is repaired. Note: Be advised that activation of this fault condition and the associated repair is not covered under warranty. If the AC Protect is disengaged, it is important to have all equipment that was connected to that AC Mains Line be inspected for proper operation.

#### REAR PANEL DESCRIPTION



- 1. AC Mains Input** - Connect the 12 gauge 9' (2.74m) power cord to a 20A 120VAC outlet to provide power to the AP-S20.
- 2. Switched AC Power Outlets** - Seven 120VAC 20A NEMA 5-20R outlets are live when the front panel power switch is activated.
- 3. Unswitched AC Power Outlet** - The 120VAC 20A NEMA 5-20R outlet is always live when the AP-S20 power cord is plugged into an AC mains power source and voltage is present. **Note:** The AC mains power switch does not affect the Unswitched AC Outlet. The Unswitched Outlet is protected by the surge protection circuitry.

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## AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT



### OWNER'S MANUAL

## INSTALLATION

Before installing, read the entire manual to ensure proper understanding of operation and that all features are being utilized. The AP-S20 can be placed on a shelf or rack mounted in a standard 19" width rack. When rack mounted, placement within the rack is flexible, however the AP-S20 should be within 6' of a dedicated 20A AC outlet. When rack mounting, use rack rail type screws of 10/32" x 1". Always make sure the 20A outlet is properly inspected by a certified electrician prior to connecting the AP-S20. Make sure to inspect the equipment that will be connected to the AP-S20 to ensure it does not exceed 20A total amperage draw.

## AUDIO SPECIFICATIONS / PERFORMANCE

System	
Model	AP-S20
Type	AC Power Distribution & Surge Suppressor
Load Rating	20A
Safety Listings	UL 60950-1 Standard

Front Panel	
Outlets	1 Unswitched, Note: All Outlets are Surge and RF Protected
Activation Switch	Rocker, Illuminates Red when in the ON position
Indicators	AC Power ON (Red), AC Protect Active ON (Green)
AC Mains Circuit Breaker	20A Resettable

Rear Panel	
AC Outlets	NEMA 5-20R, 8 Outlets Total: 7 Switched, 1 Unswitched
AC Mains Power Cord	9' (2.74m), 12 Gauge, AC Plug NEMA 5-20P

Technical	
Current Rating	Limited to 16A 2000W Continuous
Current Protection	20A AC Mains Breaker
Operating Voltage	102VAC - 132VAC
MOV - New Generation	Qty. 3 Hot to Neutral, Hot to Ground, Neutral to Ground
Clamping Voltage	L-N: 400, L-G: 500, N-G: 400 / 3KA, 8/20 $\mu$ s
Max. Spike Clamping Voltage	6kV, 1.2/50 $\mu$ s
Max. Spike Clamping Resp. Time	<1 nanosecond
Maximum Surge Current	45000A, 8/20 $\mu$ s
Energy Rating @ 2ms	900 Joules, 8/20 $\mu$ s
Noise Attenuation RFI	40dB @ 10kHz - 100MHz
Temperature Range	5° to 35°C
Humidity Range	5% to 95% Relative Humidity

Mechanical	
Color	Black
Rack Mount Requirements	1 RU, 19"

(CONTINUES ON NEXT PAGE)

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## AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT



### OWNER'S MANUAL

#### AUDIO SPECIFICATIONS / PERFORMANCE (CONTINUED)

##### Dimension and Weight

Dimensions - Unit	19" W x 1.75" H x 3.75" D (482.6mm x 44.5mm x 95.5mm)
Dimensions - Shipping	20.5" W x 3.5" H x 8.5" D (520.7mm x 88.9mm x 215.9mm)
Weight - Unit	5.5 lbs (2.49kg)
Weight - Shipping	6.12 lbs (2.78kg)

##### Package Contents

AP-S20 Unit	Qty 1
Owner's Manual Insert	Qty 1

##### Warranty Coverage

Warranty Period	1 Year
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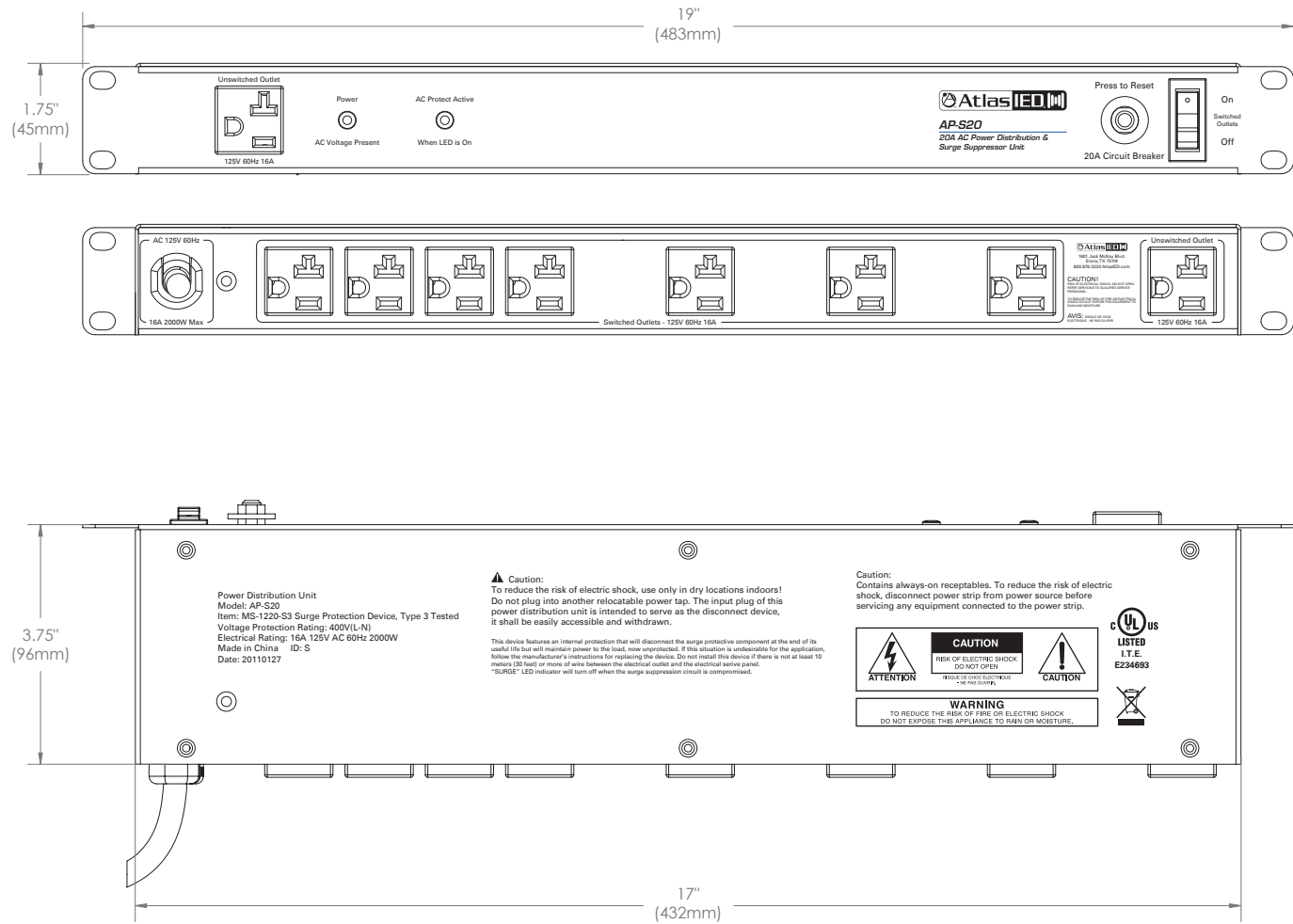
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## AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT



### OWNER'S MANUAL

### DIMENSIONAL DRAWINGS



# AP-S20

## AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT



### OWNER'S MANUAL

#### LIMITED WARRANTY

All products manufactured by AtlasIED are warranted to the original dealer / installer, industrial or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. This warranty shall extend from the date of purchase for a period of three years on all AtlasIED products, including SOUNDOLIER brand, and ATLAS SOUND brand products except as follows: one year on electronics and control systems; one year on replacement parts; and one year on Musician Series stands and related accessories. Additionally, fuses and lamps carry no warranty. AtlasIED will solely at its discretion, replace at no charge or repair free of charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage, misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lightning discharge, or malfunctions when products have been modified or operated in excess of rated power, altered, serviced or installed in other than a workman like manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our returns policy set forth below. When products returned to AtlasIED do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is included with the returned product(s) a written request for an estimate of repair costs before any nonwarranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transportation charges collect.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLASIED SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

AtlasIED does not assume, or does it authorize any other person to assume or extend on its behalf, any other warranty, obligation, or liability. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

#### SERVICE

Should your AP-S20 require service, please contact the AtlasIED warranty department through the online warranty claim process.

Online Warranty Claim Processes

1. Warranty submissions are accepted at: [https://www.atlasied.com/warranty\\_statement](https://www.atlasied.com/warranty_statement) where the type of return Warranty or Stock return can be selected.
2. Once selected, you will be prompted to enter your login credentials. If you do not have a login, register on the site. If already logged-in, navigate to this page by selecting "Support" and then "Warranty & Returns" from the top menu.
3. In order to file a Warranty Claim, you will need:
  - A. A copy of the invoice / receipt of the purchased item
  - B. Date of Purchase
  - C. The product name or SKU
  - D. The serial number for the item (if no serial number exists, enter N/A)
  - E. A brief description of the fault for the claim
4. Once all required fields are completed, select the "Submit Button". You will receive 2 emails:
  1. One with a confirmation of the submission
  2. One with a case# for your reference should you need to contact us.

Please allow 2-3 business days for a response with a Return Authorization (RA) number and further instructions.

AtlasIED Tech Support can be reached at 1-800-876-3333 or [atlasied.com/support](mailto:support@atlasied.com).

Visit our website at [www.AtlasIED.com](http://www.AtlasIED.com) to see other AtlasIED products.