Safety Information

Important Safety Information
♦ Installation and removal of the PoE Injector must be carried out by qualified personnel only.

The PoE Injector "DATA IN" and "DATA PWR OUT" ports are shielded RJ45 data sockets. They cannot be used as Plain Old Telephone Service (POTS) telephone sockets. Only RJ45 data connectors can be connected to these sockets.

The PoE Injector DATA IN and DATA PWR OUT interfaces are qualified as SELV (Safety Extra-Low Voltage) circuits according to IEC 60950-1. These interfaces can only be connected to SELV interfaces on other equipment.

WARNINGS!
♦ Read the installation instructions before connecting the PoE Injector to its power source.
♦ Follow basic electricity safety measures whenever connecting the PoE Injector to its power source.
♦ A voltage mismatch can cause equipment damage and may pose a fire hazard. If the voltage indicated on the label is different from the power outlet voltage, do not connect the PoE Injector to this power outlet.
♦ The equipment is intended only for installation in a Restricted Access Location.

Recycling and Disposal
Disposal instructions for old products. The WEEE (Waste Electrical and Electronic Equipment) national environmental initiatives has been put in place to ensure that products are recycled using best available treatment, recovery and recycling techniques to ensure human health and high environmental protection. Your product is designed and manufactured with high quality materials and components, which can be recycled and reused. Do not dispose of your old product in your general household waste bin. Inform yourself about the local separate collection system for electrical and electronic products marked by this symbol:

Use one of the following disposal options:
1. Dispose of the complete product (including its cables, plugs and accessories) in the designated WEEE collection facilities.
2. If you purchase a replacement product, hand your complete old product back to the retailer. He should accept it as required by the national WEEE legislation.

Specifications
Environmental Specifications

<table>
<thead>
<tr>
<th>Mode</th>
<th>Temperature</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>-40°C to 55°C for 30 Watt (-40°F to 131°F)</td>
<td>10 to 95% (no condensation allowed)</td>
</tr>
<tr>
<td></td>
<td>-40°C to 65°C for 15.4 Watt (-40°F to 149°F)</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>-40°C to 85°C (-40°F to -185°F)</td>
<td>10 to 95% (no condensation allowed)</td>
</tr>
</tbody>
</table>

Electrical Specifications

<table>
<thead>
<tr>
<th>Input Voltage</th>
<th>100-240VAC (50-60 Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Current (100-240 VAC)</td>
<td>1 Ampere (max)</td>
</tr>
<tr>
<td>Available Output Power (max.)</td>
<td>30 Watt</td>
</tr>
<tr>
<td>Nominal Output Voltage</td>
<td>54 to 57VDC</td>
</tr>
</tbody>
</table>

Interface

<table>
<thead>
<tr>
<th>Input (Data In): Ethernet 10/100/1000Base-T</th>
<th>RJ45 female socket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (DATA PWR OUT): Ethernet 10/100/1000Base-T, plus 55VDC</td>
<td>RJ45 female socket, with DC voltage on wire pairs 1-2, 3-6, 4-5 &amp; 7-8.</td>
</tr>
<tr>
<td>Power Cable</td>
<td>Pre-installed 5m power cable without main plug</td>
</tr>
</tbody>
</table>

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Ordering information:

US Power Cord:
• Product Name: POE-OUTDOOR IP66 802.3AT 100-240VAC US
• Part Number: AP-PSBIAS-7161-US
• Description: OUTDOOR IP66 802.3AT GIGABIT ETHERNET POWER INJECTOR 100-240 VAC US

International Power Cord:
• Product Name: POE-OUTDOOR IP66 802.3AT 100-240VAC INTL
• Part Number: AP-PSBIAS-7161-WW
• Description: OUTDOOR IP66 802.3AT GIGABIT ETHERNET POWER INJECTOR 100-240 VAC INTL

Part Number MN001388A01 Revision B April 2015
Functions and Features

The AP-PSBIAS-7161, 1-Port 802.3at Gigabit PoE Outdoor Injector injects power over data-carrying Ethernet cabling. It maintains the IEEE802.3at and IEEE802.3af standard. These power levels allow usage by a new range of Ethernet-based applications such as video phones, 802.11n Access Points, WiMAX Transmitters, PTZ cameras and more. The AP-PSBIAS-7161 DATA PWR OUT port is designed to carry Gigabit Ethernet data & power over a standard CAT5e cable, delivered through 2-pairs (Alt B: pins 4.5 (+) and 7.8 (-)).

AP-PSBIAS-7161 EMC Compliance:
- CE:
  - o EN55024, EN61000-4-5 Class 5 (6kV CM)
  - o EN55022 class B
- FCC Part 15 class B
- EN60950-22
- GS mark
- UL 1449

AP-PSBIAS-7161 Safety Compliance:
- UL60950-1
- EN60950-22
- GS mark
- UL 1449

AP-PSBIAS-7161 Lightning Protection:
- Designed to meet GR-1089-CORE lightning protection demands

Other Standards and Approvals:
- IEEE 802.3at & IEEE 802.3af (PoE) standards
- RoHS Compliant
- Compliance WEEE
- Dust & Water Intrusion
  - o EN600529, level IP66
  - o NEMA 250, level 4x
- ASTM B-117 corrosion resistance

Preliminary Steps

- The earth terminal should be connected before the mains are connected
- Ensure that AC power is applied to the PoE Injector.
- Ensure that output Ethernet cable is connected to the DATA PWR OUT port.
- Verify that power ready Ethernet compatible device is connected.

WARNING

- Do not use cross over cable between the PoE Injector output port and the load device
- Installation

  The PoE Injector can be placed on a desktop or mounted on a wall/bench (all kind of flat surfaces: wood, brick, concrete etc) using the mounting holes.

  Note:: Before mounting the PoE Injector to a fixed location:
- Ensure cable length from Ethernet network source to the terminal does not exceed 100 meters (333 feet). The PoE is not a repeater and does not amplify the Ethernet data signal.
- Use a splitter if desired; ensure splitter is connected close to the terminal and not on the Injector!
- The PoE Injector AC power lines shall be connected to a readily accessible disconnect device. Rating of the disconnect device : 100-240Vac / 1.6 A max (per unit)

Cables:
- AC cable - EU (internal cable color code - Blue, Brown, yellow-Green)
- AC cable - US (internal cable color code - Black, white, Green)
- Earth terminal wire gauge - 16 AWG

Installing the Unit

Connect the chassis bolt connection to the main chassis infrastructure.
- Connect the PoE Injector to an AC power line (100-240VAC) (via a readily accessible disconnect device)
- Connect the DATA IN jack (input) to the remote Ethernet network switch’s Patch panel and the DATA PWR OUT jack (output) to the terminal.

Mounting Instructions

Install the unit according to figure 1.a
2. Chassis bolt connector is indicated in figure 1.b

Troubleshooting

• Injector does not power up
1. Verify a reliable power cord is used.
2. Verify the voltage at the power inlet is between 100-240 Vac.
3. Remove and reapply power to the device and check the indicators during power up sequence.

• A port indicator is not lit and the PD does not operate
3. Verify the power injector detects detect a PD.
4. Verify PD is designed for PoE operation.
5. Verify you are using a standard Category 5e/6, straight-wired cable, with four pairs.
6. If an external power splitter is in use, replace it with a known-good splitter.
7. Ensure input Ethernet cable is connected to the Data In port.
8. Verify that the PD is connected to the Data & Power port.
9. Try to reconnect the same PD into a different Power injector. If it works, there is probably a faulty port or RJ45 connection.
10. Verify there is no short over any of the twisted pair cables or over the RJ45 connectors.

• The end device operates, but there is no data link
1. Verify the port indicator on the front panel is continuously lit.
2. If an external power splitter is in use, replace it with a known-good splitter.
3. Verify that for this link, you are using standard UTP/FTP Category 5 straight (non-crossover) cabling, with all four pairs.
4. Verify that the Ethernet cable length is less than 100 meters from the Ethernet source to the load/remote terminal.
5. Try to reconnect the same PD into a different Power injector. If it works, there is probably a faulty port or RJ45 connection.