NUM'AXES NGPIEACC021

User Manual for NUM'AXES Solar Panel

Model: NGPIEACC021

1. Introduction

This solar panel is designed to convert solar energy into electricity, which is then stored in its internal rechargeable battery. It provides a sustainable power source for compatible devices, extending their operational life in the field.
The built-in high-capacity lithium-polymer battery can be recharged efficiently by sunlight or via the included AC/DC power adapter. This panel is compatible with NUM'AXES trail cameras PIE1009, PIE1023, PIE1025, PIE1027, and PIE1037.

2. Product Overview

The NUM'AXES solar panel is a robust and efficient power solution for your trail cameras. It features a durable, waterproof design suitable for outdoor use.

Figure 2.1: Front view of the NUM'AXES solar panel, showing the photovoltaic cells designed to capture sunlight.

Figure 2.2: The solar panel accompanied by its accessories, including the AC/DC power adapter, adjustable mounting bracket, and connection cables.

Key Features:

- Integrated lithium-polymer battery: 3.7V / 2500mAh.
- Can be recharged using the solar panel or the included AC/DC adapter.
- Solar panel power: 1.5W (5.5V / 270mA).
- Waterproof design, suitable for outdoor environments.
- Comes with an adjustable and easy-to-use mounting bracket.
- Compatible with NUM'AXES trail cameras PIE1009, PIE1025, PIE1023, and PIE1037.

3. Setup and Installation

Proper installation ensures optimal performance and longevity of your solar panel.

1. **Unpack Components:** Carefully remove the solar panel, mounting bracket, AC/DC adapter, and connection cables from the packaging.
2. **Charge Before First Use:** For best results, fully charge the internal battery using the AC/DC adapter before the first outdoor deployment. Connect the adapter to the solar panel's charging port and plug it into a standard wall outlet.
3. **Select Location:** Choose a location that receives maximum direct sunlight throughout the day. Avoid shaded areas from trees, buildings, or other obstructions.
4. **Mounting:**
    - Attach the adjustable mounting bracket to a stable surface (e.g., tree, pole, wall) using appropriate screws or straps (not included, unless specified).
    - Secure the solar panel to the mounting bracket.
    - Adjust the angle of the solar panel to face the sun directly, especially during peak sunlight hours.

5. **Connect to Trail Camera:** Use the provided connection cable to link the solar panel to your compatible NUM'AXES trail camera (PIE1009, PIE1023, PIE1025, PIE1027, PIE1037). Ensure a secure connection.
6. **Weather Protection:** While the panel is waterproof, ensure all connections are tight and protected from direct water exposure where possible.

4. Operating Instructions

Once installed, the solar panel operates automatically to charge its internal battery and power the connected trail camera.

- **Automatic Charging:** The solar panel will automatically begin charging its internal lithium-polymer battery when exposed to sufficient sunlight.
- **Power Output:** The stored energy is then supplied to the connected trail camera, reducing the need for frequent battery changes in the camera itself.
- **Low Light Conditions:** In periods of low sunlight or during the night, the internal battery will continue to power the camera. If the internal battery depletes, the camera may switch to its own internal batteries (if installed).
- **AC/DC Charging:** If prolonged periods of low sunlight occur, or for initial charging, use the provided AC/DC adapter to recharge the solar panel's battery from a wall outlet.

5. Maintenance

Regular maintenance ensures optimal performance and extends the lifespan of your solar panel.

- **Clean Solar Surface:** Periodically clean the surface of the solar panel with a soft, damp cloth to remove dust, dirt, leaves, or other debris that may obstruct sunlight. Do not use abrasive cleaners or harsh chemicals.
- **Check Connections:** Regularly inspect all cable connections to ensure they are secure and free from corrosion or damage.
- **Inspect Mounting:** Verify that the mounting bracket is still securely attached and the panel's angle is optimal for sun exposure.
- **Battery Health:** While the lithium-polymer battery is designed for longevity, extreme temperatures can affect its performance. Avoid prolonged exposure to temperatures outside the recommended operating range.
- **Storage:** If storing the solar panel for an extended period, ensure the battery is partially charged (around 50%) and store it in a cool, dry place.

6. Troubleshooting

This section addresses common issues you might encounter with your solar panel.

Problem	Possible Cause	Solution
Solar panel not charging / Camera not receiving power.	• Insufficient sunlight. • Dirty solar panel surface. • Loose or damaged connection cable. • Internal battery issue. • Panel angle not optimized.	• Relocate the panel to an area with more direct sunlight. • Clean the solar panel surface. • Check and secure all connections. Replace cable if damaged. • Ensure the panel is angled directly towards the sun. • Try charging with the AC/DC adapter to confirm battery function.
Battery life is shorter than expected (e.g., not lasting through the night).	• Insufficient daily charge. • High power consumption by the camera. • Aging battery. • Extreme cold temperatures.	• Ensure optimal sun exposure and clean panel. • Reduce camera settings that consume more power (e.g., frequent video recording, IR flash). • Consider replacing the solar panel if the battery is significantly degraded. • In very cold climates, performance may be reduced.
Mounting bracket feels unstable.	• Improper installation. • Loose screws/fasteners. • Inadequate mounting surface.	• Re-install the bracket ensuring all fasteners are tight. • Use appropriate hardware for the mounting surface. • Ensure the mounting surface is sturdy enough to support the panel.

7. Specifications

Feature	Detail
Model Number	NGPIEACC021
Compatible Devices	NUM'AXES Trail Cameras PIE1009, PIE1023, PIE1025, PIE1027, PIE1037
Battery Type	Lithium-ion (1 included)
Battery Capacity	3.7V / 2500mAh
Solar Panel Power	1.5W (5.5V / 270mA)
Max Power	1.5 Watt
Voltage	9.5 Volts
Wattage	3.3 Watts
Dimensions (L x W x H)	12.5 x 20 x 2.2 cm
Weight	200 grams
Material	Aluminum, Glass
Connector Type	USB
Waterproof Design	Yes (suitable for outdoor use)

8. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official NUM'AXES website. Keep your proof of purchase for warranty claims.
Manufacturer: NUM'AXES
Website: Visit NUM'AXES Store on Amazon