

GRAUGEAR G-PS5HS04

GRAUGEAR PS5 SSD Heatsink Cover (Model G-PS5HS04) Instruction Manual

Enhancing Thermal Performance for Your PlayStation 5 M.2 NVMe SSD

INTRODUCTION

The GRAUGEAR G-PS5HS04 is an M.2 NVMe SSD heatsink cover specifically engineered for the PlayStation 5. This product is designed to improve the thermal performance of an SSD installed in the console's expansion slot, utilizing a copper heat pipe and aluminum fins for efficient heat dissipation. Proper cooling helps maintain optimal SSD performance and extends its lifespan.

Designed for PlayStation®5

Improved heat dissipation



Image: The GRAUGEAR PS5 SSD Heatsink Cover positioned next to a PlayStation 5 console, highlighting its design for improved heat dissipation.

COMPATIBILITY

This heatsink cover is compatible with the original PlayStation 5 console (Disc Edition and Digital Edition, models CFI-1000, CFI-1100, CFI-1200). It is **not compatible** with the newer PS5 Slim console (CFI-2000 series).

The heatsink supports both single-sided and double-sided M.2 NVMe SSDs in various sizes: 2230, 2242, 2260, 2280, and 22110.

Compatible with Original PS5 Console
Not Available for New PS5 Slim Console



Original PS5

Disc Edition
Digital Edition

CFI-1000 / CFI-1100 / CFI-1200



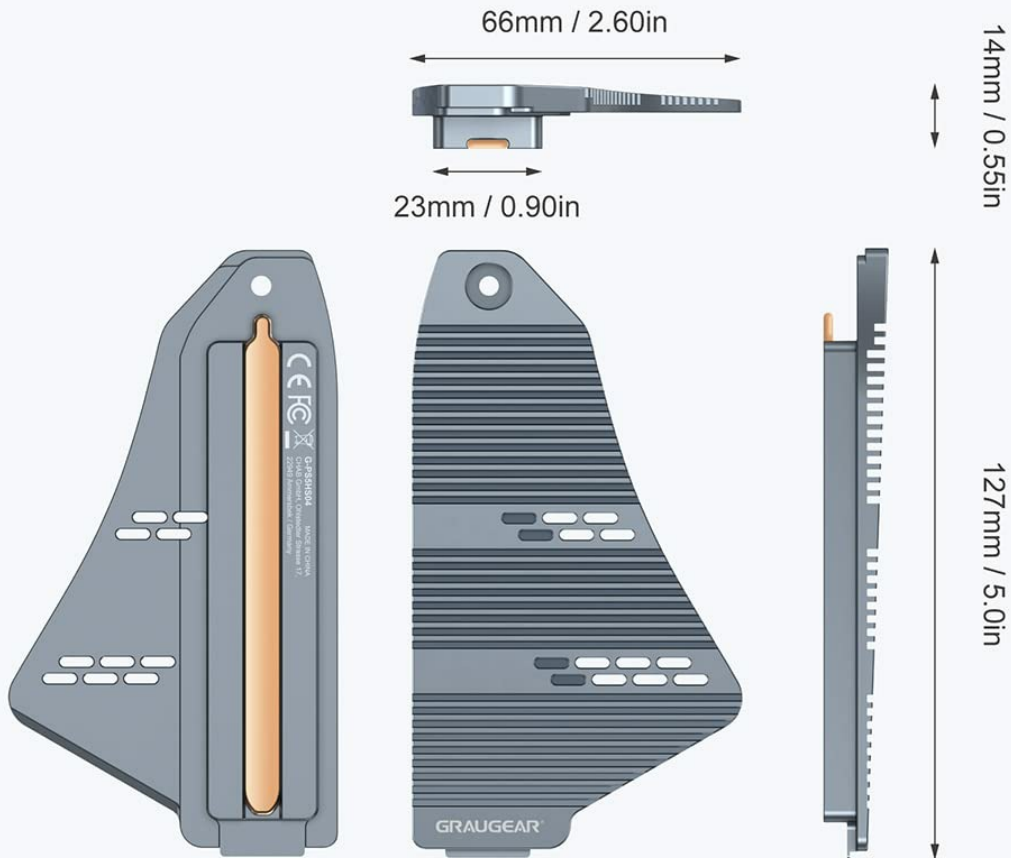
PS5 Slim

Disc Edition
Digital Edition

CFI-2000

Image: A visual guide indicating compatibility with the original PlayStation 5 (Disc and Digital Editions) and incompatibility with the PS5 Slim console.

Specifications



| | |
|---------------------|-----------------------------|
| Heat Sink Dimension | L127 x W66 x H14mm |
| Heat Pipe Dimension | L105 x W9 x H12mm |
| Material | Copper Heat Pipe / Aluminum |
| Weight | 90g |
| Color | Space Grey |

Image: An illustration demonstrating the supported M.2 NVMe SSD form factors (2230, 2242, 2260, 2280, 22110).

PACKAGE CONTENTS

Please verify that all items are present in the package:

- GRAUGEAR PS5 M.2 NVMe SSD Heatsink Cover (G-PS5HS04)
- Thermal Pads (Single-sided blue: 1.0mm, 4.8W/m-k)
- Thermal Pads (Single-sided pink: 1.5mm, 3.6W/m-k)

- Screwdriver
- Screws
- Warranty Card
- User Manual
- EVA Pad

Package Contents



- | | | |
|---|---|-------------------------|
| 1 G-PS5HS04 | 2 Screwdriver | 3 Guarantee Card |
| 4 SSD mounting screw | 5 EVA Pad | 6 User Manual |
| 7 2x Thermal Pad 4.8W/m-k T=1.0mm | 8 2x Thermal Pad 3.6W/m-k T=1.5mm | |

Image: A complete view of the package contents, including the heatsink cover, thermal pads, screwdriver, screws, warranty card, and user manual.

SETUP AND INSTALLATION

Follow these steps to install the GRAUGEAR PS5 SSD Heatsink Cover and your M.2 NVMe SSD into your PlayStation 5 console.

1. **Prepare the PS5:** Power off your PlayStation 5 console and disconnect all cables. Place the console on a soft cloth on a flat surface.
2. **Remove the PS5 Cover:** Carefully remove the side cover of your PS5 to access the M.2 expansion slot. Refer to your PS5 console's official guide for detailed instructions on cover removal.
3. **Remove the Expansion Slot Cover:** Unscrew and remove the small metal cover over the M.2 expansion slot.
4. **Install the EVA Pad:** Place the supportive EVA Pad into the M.2 NVMe SSD slot.
5. **Insert the M.2 SSD:** Gently insert your M.2 NVMe SSD into the expansion slot at an angle, then push it down until it clicks into place. Secure it with the provided SSD mounting screw.
6. **Apply Thermal Pads:** Select the appropriate thermal pads (1.0mm or 1.5mm) based on your SSD's thickness. Remove the protective films from both sides of the thermal pads and carefully place them onto the SSD surface. Ensure full contact.
7. **Install the Heatsink Cover:** Align the GRAUGEAR heatsink cover over the SSD and thermal pads. Gently press down to ensure good contact between the heatsink and the thermal pads.
8. **Secure the Heatsink:** Use the provided screws and screwdriver to secure the heatsink cover in place. Do not overtighten.
9. **Reassemble PS5:** Replace the PS5 side cover and reconnect all cables.

Supported form factor

The product is suitable for all sizes of M.2 SSD

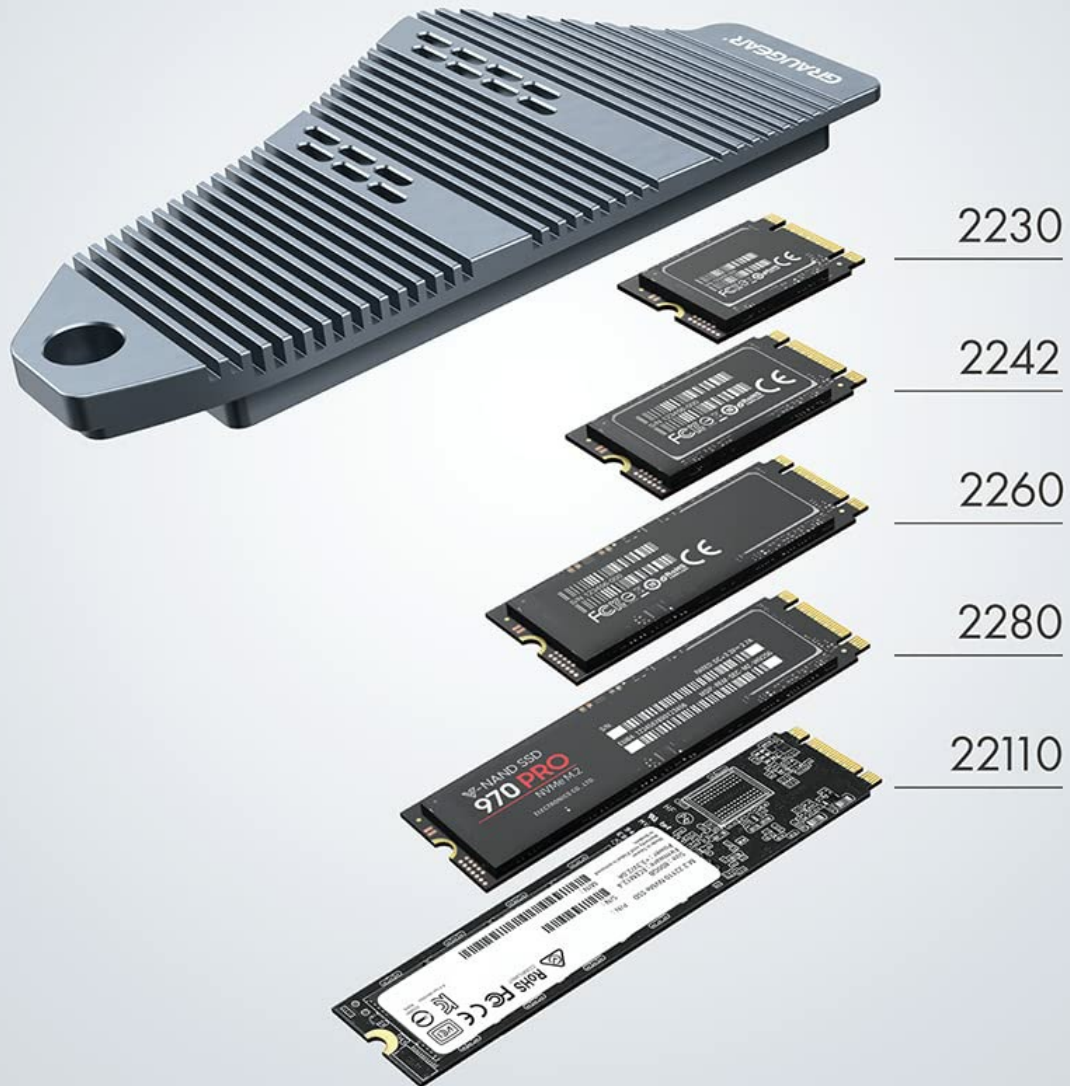


Image: The heatsink being carefully placed over an M.2 SSD within the PlayStation 5's expansion slot.

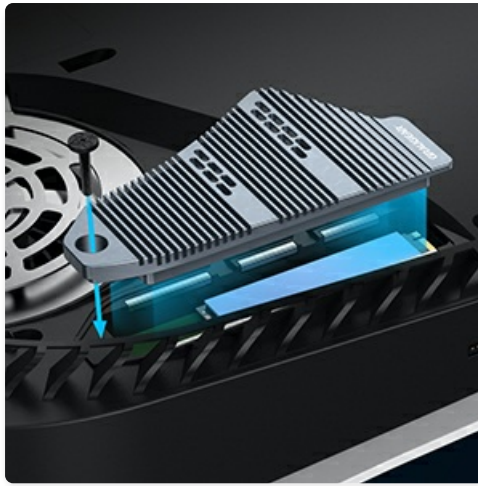


Image: A diagram illustrating the process of securing the heatsink cover with screws.

Installation Video Guide

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Video: An official GRAUGEAR installation guide demonstrating the steps to install the PS5 SSD heatsink cover and M.2 SSD.

OPERATING PRINCIPLES

The GRAUGEAR G-PS5HS04 heatsink cover employs a combination of a copper heat pipe and aluminum fins to effectively manage heat generated by your M.2 NVMe SSD.

- **Copper Heat Pipe:** The integrated copper heat pipe provides maximum cooling performance through direct touch heat transfer. Its flat machined surface ensures even contact with the SSD, rapidly conducting heat away from the components.
- **Aluminum Fins:** The plate-fin heat exchanger design of the aluminum body ensures efficient thermal conduction. These fins increase the surface area for heat dissipation, reducing the SSD's temperature by up to 50%.
- **Integrated Cooling:** The heatsink's design works in conjunction with the PS5's internal cooling system, allowing fresh air to flow over the heatsink and further enhance cooling efficiency.

Cool Down 15-25°C

Aluminum heatsink for M.2 SSD cooling



Image: A visual representation of the heatsink's cooling capability, showing a temperature reduction of 15-25°C for the M.2 SSD.

Direct contact with heat pipe

Seamlessly attached to the SSD,
quickly conduct the heat to the aluminum structure

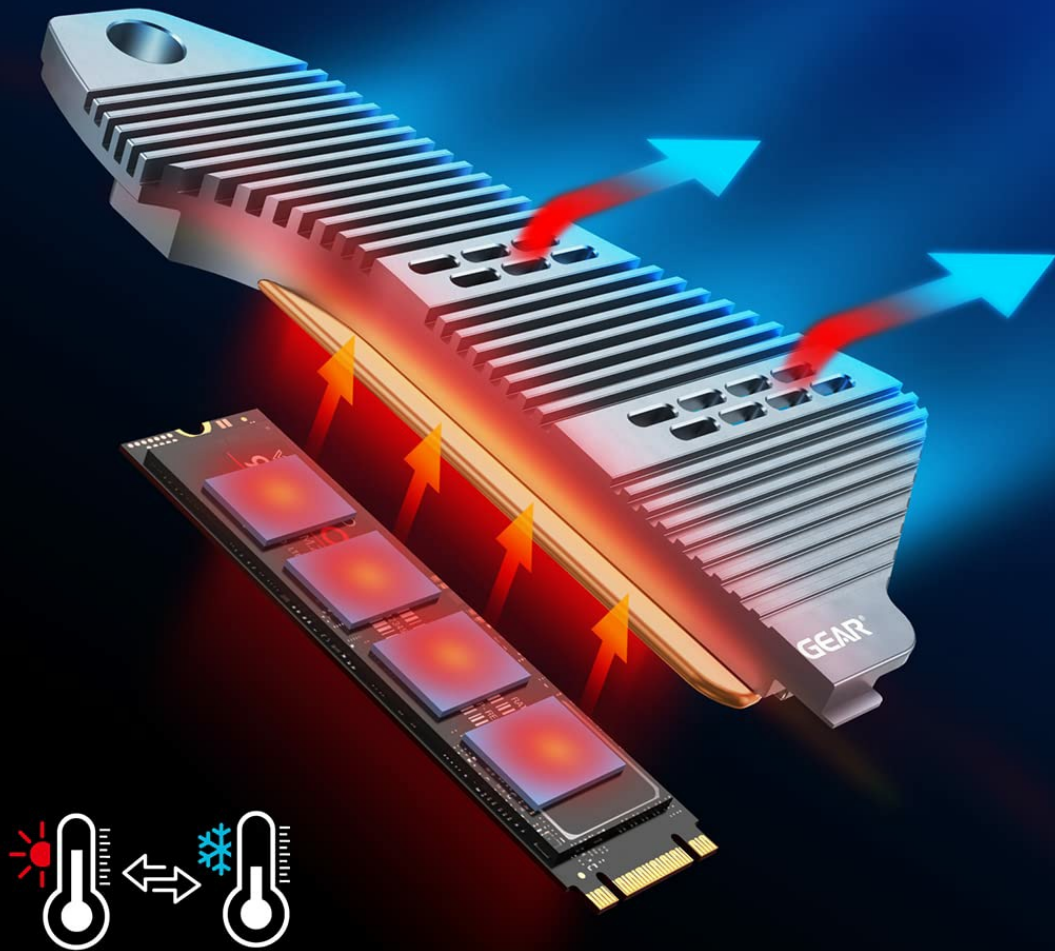


Image: A diagram illustrating the direct contact heat transfer from the SSD to the heatsink's copper heat pipe and then to the aluminum structure.

Revolutionary cooling

Aluminium heatsink dissipates the heat, and the PS5 cooling system ensure fresh air flows over the heatsink to further improve cooling

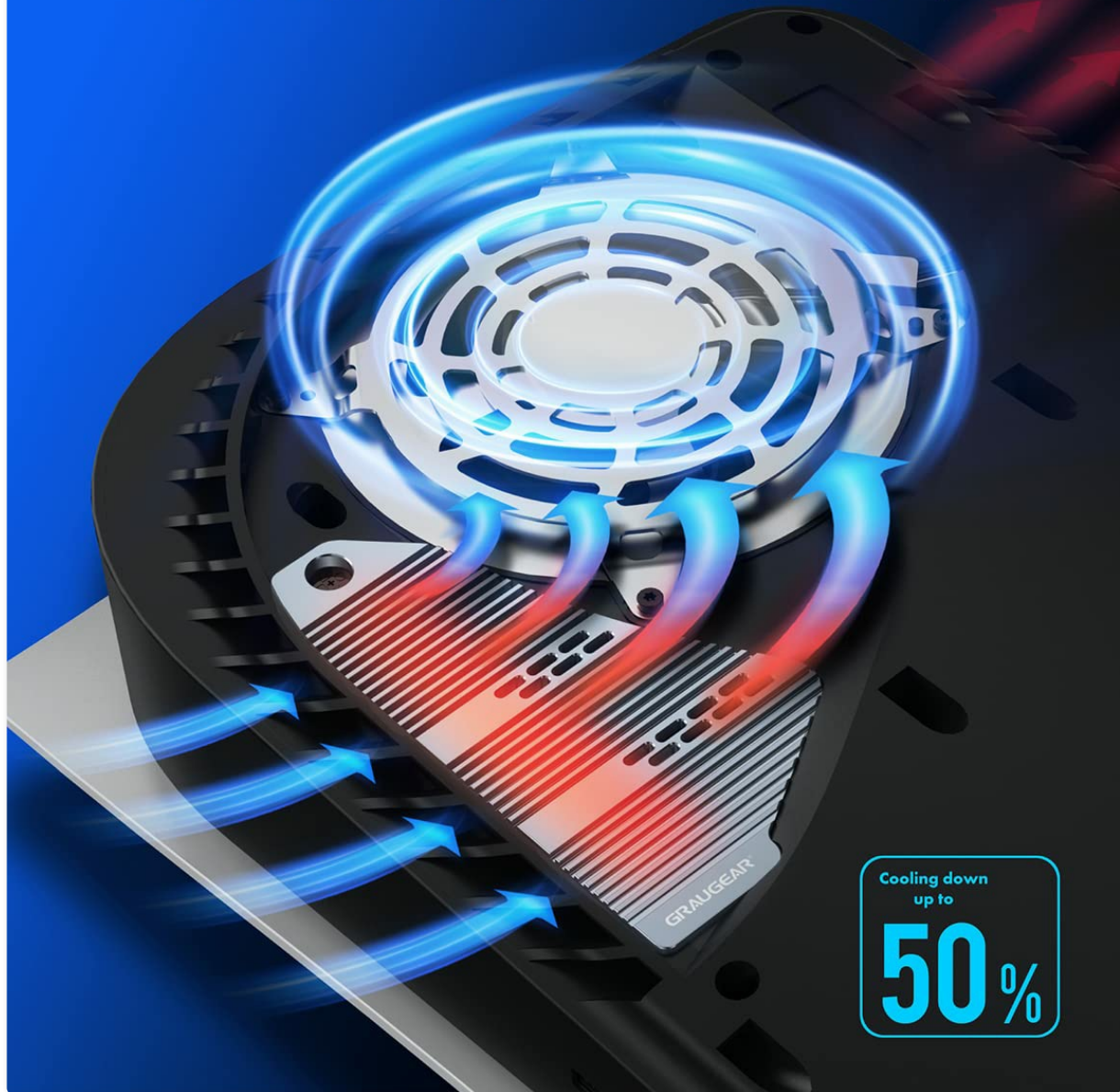


Image: An illustration depicting the revolutionary cooling process where the aluminum heatsink dissipates heat, and the PS5's cooling system ensures fresh airflow.

With standard PlayStation®5 Cover

The expansion slot with standard cover on will cause the active flow little and no ventilation inside, and the high operating temperature will degrade or throttle the NVMe SSD.



With Graugear heat pipe cooler

The integrated cover and heatsink were crafted to replace the standard cover and allows your SSD upgrade to dissipate the heat and maximize the performance of your NVMe SSD upgrade.

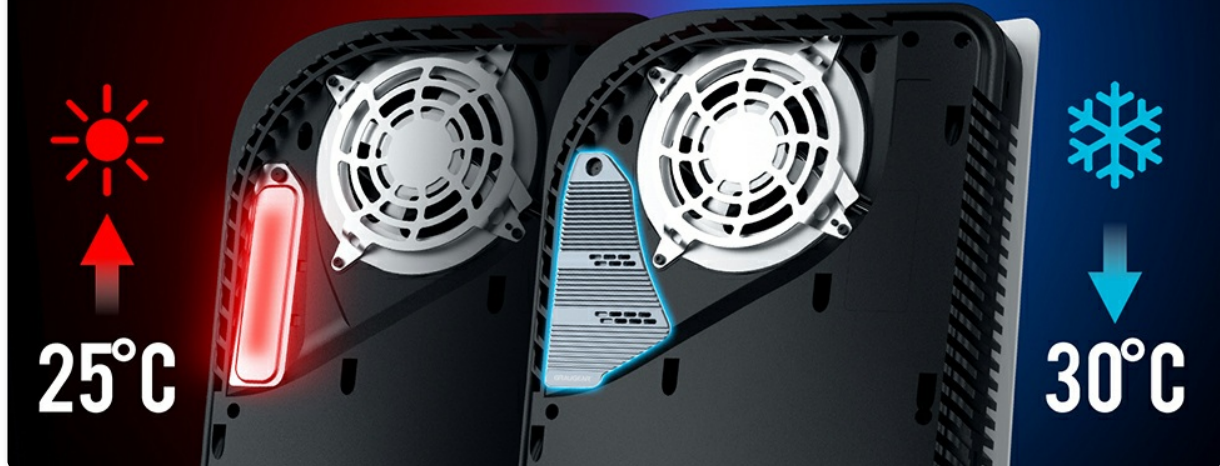


Image: A comparative diagram highlighting the temperature difference and improved ventilation with the GRAUGEAR heat pipe cooler versus the standard PlayStation 5 cover.

MAINTENANCE

To ensure continued optimal performance of your GRAUGEAR PS5 SSD Heatsink Cover, consider the following maintenance tips:

- **Dust Removal:** Periodically inspect the heatsink fins for dust accumulation. Use compressed air or a soft brush to gently remove any dust, ensuring unobstructed airflow.
- **Thermal Pad Integrity:** While thermal pads are designed for long-term use, if you ever need to remove and re-install the heatsink, it is recommended to replace the thermal pads to ensure optimal heat transfer.
- **Environmental Factors:** Ensure your PS5 console is placed in a well-ventilated area, away from direct heat sources, to further aid in overall system cooling.

TROUBLESHOOTING

Here are answers to some common questions regarding PS5 SSDs and heatsinks:

- **Does PS5 SSD overheat?**
The PS5 SSD can reach temperatures of up to 71 degrees Celsius. Excessively high temperatures may affect the life of the SSD, so using a heatsink is beneficial for maintaining lower operating temperatures.
- **Do I really need a heatsink for NVMe SSD?**
While not all consumer SSDs require a heatsink, for high-performance NVMe SSDs, especially when used in demanding environments like the PS5, a heatsink helps prevent thermal throttling and prolongs the SSD's lifespan by keeping temperatures within optimal ranges.
- **How can I improve my PS5 cooling?**
Sony recommends installing a heatsink to the internal PS5 SSD to maintain performance. A heatsink works by cooling down the SSD and transferring heat away from the device. Additionally, ensure

proper console ventilation and keep the console's vents clear of obstructions.

SPECIFICATIONS

| Feature | Detail |
|---------------------------------|--|
| Brand | GRAUGEAR |
| Model | G-PS5HS04 |
| Cooler Heatsink Material | Copper Heat Pipe / Aluminum |
| Product Dimensions (L x W x H) | 5" x 2.6" x 0.55" (127mm x 66mm x 14mm) |
| Heat Pipe Dimension (L x W x H) | 105mm x 9mm x 12mm |
| Item Weight | 3.18 Ounces (90g) |
| Cooler Heatsink Compatibility | PS5 M.2 NVMe SSD (2230, 2242, 2260, 2280, 22110) |
| Mounting Type | Slot Mount |
| Included Components | Heatsink cover, thermal pads, screwdriver, screws, warranty card, user manual, EVA pad |

Image: Detailed specifications and dimensions of the GRAUGEAR PS5 SSD Heatsink Cover.

WARRANTY AND SUPPORT

GRAUGEAR products are designed for reliability and performance. This product comes with a standard warranty. Please refer to the included warranty card for specific terms and conditions.

For technical support, troubleshooting assistance, or warranty claims, please contact GRAUGEAR USA customer service. Contact details can typically be found on the GRAUGEAR official website or the warranty card provided in the package.