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› [Seasonic Prime TX-1600-1600W - 80+ Titanium - ATX 3.0 & PCIe 5.1 Ready - Full Modular - ATX Form Factor - Premium Japanese Capacitor - Nvidia RTX 30/40 Super & AMD GPU Compatible \(Ref. SSR-1600TR2\) PRIME TX-1600 ATX 3](#)

### Seasonic PRIME TX-1600 ATX 3(SSR-1600TR2)

# Seasonic Prime TX-1600 Power Supply Unit User Manual

Model: PRIME TX-1600 ATX 3 (SSR-1600TR2)

## INTRODUCTION

The Seasonic Prime TX-1600 is an 80 PLUS® Titanium Certified Power Supply Unit designed for high-performance computing systems. It delivers ultra-high efficiency and features a fully modular design, a 135mm fluid dynamic bearing fan, and premium hybrid fan control for optimal cooling and silent operation. Built with Micro Tolerance Load Regulation (MTLR) [0.5%] and PVC embossed cables, this PSU ensures stable performance and long-term reliability, backed by a 12-year warranty.

## SAFETY INFORMATION

Please read and understand all safety precautions before installing or operating the power supply unit. Failure to do so may result in personal injury or damage to the product or connected components.

- Ensure the power supply is disconnected from the AC power outlet before installation or maintenance.
- Do not open the power supply unit casing. High voltages are present inside, and there are no user-serviceable parts.
- Install the power supply in a well-ventilated area, away from heat sources, direct sunlight, and moisture.
- Use only the cables provided with the power supply unit. Using incompatible cables may cause damage.
- Ensure all cable connections are secure and properly seated to prevent electrical shorts or instability.
- Avoid placing heavy objects on the power supply or its cables.

## PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- Seasonic Prime TX-1600 Power Supply Unit
- Modular Cable Set (Motherboard, CPU, PCIe, Molex, SATA, 12VHPWR)
- AC Power Cord
- ATX 24-pin 90° Adapter with PSU Tester
- Screws for Installation

- Velcro Cable Ties
- Cable Ties
- Cable Combs
- PSU Bag
- Cable Bag
- Case Badge
- Installation Guide / User Manual



Image: Complete package contents of the Seasonic Prime TX-1600, including the PSU, modular cables, power cord, and various accessories.

## PRODUCT OVERVIEW

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The Seasonic Prime TX-1600 is engineered for optimal performance and user convenience. Its fully modular design allows for clean cable management, while its robust internal components ensure stable power delivery.



Image: Angled view of the Seasonic Prime TX-1600, highlighting its modular cable connections and the distinctive top grille design.



Image: Front view of the Seasonic Prime TX-1600, detailing the various modular cable ports for Motherboard, CPU, PCIe, Peripheral, and 12VHPWR connections.



Image: Internal view of the Seasonic Prime TX-1600, showcasing its high-quality Japanese capacitors and advanced circuitry designed for maximum stability.



Image: Rear view of the Seasonic Prime TX-1600, featuring the main power switch, AC power inlet, and the switch for Hybrid Mode fan control.

## INSTALLATION GUIDE

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### 1. Pre-Installation Checks

- Ensure your computer case supports ATX form factor power supplies and has adequate space for the unit's dimensions (8.3 x 6 x 3.4 inches).
- Verify that your motherboard and other components are compatible with the power requirements of a 1600W PSU.
- Unpack the PSU and all cables. Inspect for any visible damage.

### 2. Physical Installation

1. Mount the Seasonic Prime TX-1600 into the designated PSU bay of your computer case using the provided screws. Ensure the fan is oriented correctly for optimal airflow (typically facing downwards or upwards depending on case design).
2. Connect the AC power cord to the PSU, but do not plug it into a wall outlet until all internal connections are complete.

### 3. Cable Management and Connections

The fully modular design allows you to connect only the necessary cables, reducing clutter and improving airflow within

your system. The PVC embossed cables are designed for easier routing.

1. Connect the 24-pin ATX cable to your motherboard. You may use the included 90° adapter for improved aesthetics and cable routing.
2. Connect the appropriate CPU (EPS) cables to your motherboard's CPU power connectors.
3. For graphics cards, use the PCIe cables. The Prime TX-1600 is ATX 3.0 & PCIe 5.1 Ready, providing dedicated 12VHPWR cables for compatible NVIDIA RTX 30/40 Super and AMD GPUs. Ensure these high-power connectors are fully seated.
4. Connect SATA power cables to your storage drives (SSDs/HDDs) and Molex cables to any peripherals requiring them.
5. Utilize the included cable ties and combs to organize your cables for a clean build and improved airflow.

Your browser does not support the video tag.

Video: A product overview demonstrating the Seasonic Prime TX-1600, including its unboxing and the process of connecting modular cables to the unit. This video highlights the ease of installation and the fully modular design.



Image: A hand connecting a modular cable to the Seasonic Prime TX-1600, illustrating the fully modular design for simplified cable management.

## OPERATION

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### Powering On/Off

- After all components are connected, plug the AC power cord into a wall outlet.
- Flip the main power switch on the back of the PSU to the 'ON' position.
- Power on your computer system via the case's power button.
- To power off, shut down your operating system, then flip the main power switch on the PSU to the 'OFF' position.

### Hybrid Fan Control

The Seasonic Prime TX-1600 features a Hybrid Fan Control switch on the rear of the unit. This allows you to choose between two fan operating modes:

- **Normal Mode (Fan Always On):** The fan operates continuously, adjusting its speed based on the PSU's temperature and load.
- **Hybrid Mode (Fanless Mode at Low Loads):** The fan remains off until the PSU reaches a certain temperature or load threshold, providing silent operation during light use. Once the threshold is exceeded, the fan will spin up.



Image: Illustration of the Premium Hybrid Fan Control feature, emphasizing silent operation and safety.

## MAINTENANCE

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Proper maintenance ensures the longevity and optimal performance of your power supply unit.

- **Cleaning:** Periodically clean the exterior of the PSU and the fan grille to prevent dust buildup. Use compressed air to gently clear dust from the fan blades and internal components (ensure PSU is off and unplugged).
- **Airflow:** Ensure that the air vents of your computer case are clear and not obstructed to allow for proper airflow to and from the PSU.
- The 135mm Fluid Dynamic Bearing fan is designed for long-term reliability and quiet operation, requiring minimal maintenance beyond dust removal.

## TROUBLESHOOTING

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If you encounter issues with your Seasonic Prime TX-1600, consider the following troubleshooting steps:

- **No Power:**
  - Ensure the AC power cord is securely plugged into both the PSU and the wall outlet.
  - Check that the main power switch on the PSU is in the 'ON' position.
  - Verify that the wall outlet is functional by plugging in another device.
  - Use the included ATX 24-pin PSU tester to check if the PSU itself is powering on. Connect the 24-pin cable to the tester and turn on the PSU. If the fan spins (in Normal Mode) or the PSU tester indicates power, the PSU is likely functional.
- **System Instability/Crashes:**
  - Ensure all modular cables are fully and securely seated into both the PSU and the components.
  - Check for proper ventilation within your PC case to prevent overheating.
  - If using a high-power GPU, ensure the correct 12VHPWR cable is used and fully inserted.
- **Fan Not Spinning (Hybrid Mode):**

- This is normal behavior in Hybrid Mode at low loads. The fan will only activate when the PSU reaches a certain temperature or load.
- If the fan does not spin even under heavy load, switch to Normal Mode to confirm fan functionality.
- For persistent issues, refer to the detailed troubleshooting section in the full user manual or contact Seasonic support.

## SPECIFICATIONS

Feature	Description
Model Name	PRIME TX-1600 ATX 3 (SSR-1600TR2)
Brand	Seasonic
Efficiency Certification	80 PLUS® Titanium Certified
Output Wattage	1600W
Form Factor	ATX
Cabling Design	Fully Modular
Fan Type	135mm Fluid Dynamic Bearing (FDB) Fan
Fan Control	Premium Hybrid Fan Control (Fanless Mode at Low Loads)
Load Regulation	Micro Tolerance Load Regulation (MTLR) [0.5%]
Cable Type	PVC Embossed Cables
Dimensions (LxWxH)	8.3 x 6 x 3.4 inches (210 x 150 x 86 mm)
Weight	12.98 pounds (5.9 kg)
Compatibility	ATX 3.0 & PCIe 5.1 Ready, Nvidia RTX 30/40 Super & AMD GPU Compatible

## WARRANTY AND SUPPORT

The Seasonic Prime TX-1600 Power Supply Unit comes with an industry-leading **12-year warranty**, reflecting Seasonic's commitment to quality and reliability.

For technical support, warranty claims, or further inquiries, please visit the official Seasonic website or contact their customer service department. Keep your proof of purchase for warranty validation.

- **Seasonic Official Website:** [www.seasonic.com](http://www.seasonic.com)
- **Customer Support:** Refer to the "Support" or "Contact Us" section on the official website for regional contact information.



