SilverStone CS351

SilverStone Technology CS351 NAS Chassis User Manual

Model: SST-CS351B

Brand: SilverStone

1. Introduction

The SilverStone Technology CS351 is a high-performance NAS chassis designed for robust storage solutions. Featuring five hot-swappable drive bays supporting SAS-12G and SATA-6G drives, it offers flexibility and expandability for various computing needs. This manual will guide you through the installation, operation, and maintenance of your CS351 chassis.

Your browser does not support the video tag.

Official SilverStone CS351 introduction video, showcasing key features and internal layout.

2. Safety Information

Please read and understand all safety precautions before installing or operating the SilverStone CS351 chassis. Failure to do so may result in personal injury or damage to the equipment.

- Always disconnect the power cord from the wall outlet before performing any installation, maintenance, or troubleshooting.
- Ensure proper ventilation around the chassis to prevent overheating. Do not block any ventilation openings.
- Avoid exposing the chassis to liquids, moisture, or extreme temperatures.
- Use only specified components and tools for installation. Refer to the component manufacturers' manuals for specific installation instructions.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. Package Contents

Verify that all items are present in your package:

- SilverStone CS351 Chassis

- Accessory Kit (various screws, cable ties, drive tray keys)
- User Manual (this document)

4. Product Overview

4.1 External Features

Familiarize yourself with the external components of the CS351 chassis.



Figure 4.1: Front view of the SilverStone CS351 chassis, showing the five hot-swappable drive bays and front I/O ports.

- **Front I/O:** Includes Power button (x1), Reset button (x1), USB 3.0 ports (x2), USB Type-C port (x1), and a Combo Audio jack (x1).
- **Hot-Swap Drive Bays:** Five bays supporting 3.5" or 2.5" SAS-12G / SATA-6G drives. Each bay features two LED indicators for drive status and an anti-theft lock design.



Figure 4.2: Hot-swappable drive trays extended from the front of the chassis, illustrating easy access for drive installation and removal.



Figure 4.3: The included keys for securing the hot-swappable drive trays, enhancing data security.



Figure 4.4: Rear view of the SilverStone CS351 chassis, showing the motherboard I/O cutout, PSU bay, and expansion slots.

4.2 Internal Layout and Compatibility

The CS351 chassis is designed for optimal component compatibility and airflow.



Figure 4.5: Internal view of the SilverStone CS351 chassis, highlighting the spacious interior for various components.

- **Motherboard Support:** Accommodates Micro-ATX, Mini-DTX, and Mini-ITX motherboards.
- **Power Supply:** Supports standard PS2 (ATX) PSUs, with a limitation of 160mm in length.
- **Drive Support:** In addition to the 5 hot-swap bays, the chassis supports up to 8 x 2.5" hard drives and up to 7 x 3.5" hard drives internally.
- **Expansion Cards:** Supports expansion cards up to 368mm (14.5") in length. Note that graphics card length may be reduced if internal 2.5" SSDs are installed.
- **CPU Cooling:** Ample space for CPU cooling, supporting coolers up to 82mm in height.
- **Cooling System:** Includes one internal 80mm fan. Optional fan mounts are available for two top 80mm fans and three rear 40mm fans for enhanced airflow.

5. Setup

5.1 Preparing the Chassis

1. Place the chassis on a stable, flat surface.
2. Remove the side panels by unscrewing the thumbscrews at the rear and sliding the panels backward.

5.2 Motherboard Installation

1. Install the necessary motherboard standoffs into the chassis according to your motherboard's form factor (Micro-ATX, Mini-DTX, or Mini-ITX).
2. Carefully place your motherboard onto the standoffs, aligning the screw holes.
3. Secure the motherboard with the provided screws.

5.3 Power Supply Installation

1. Mount your ATX power supply (up to 160mm in length) into its designated bay at the rear of the chassis.
2. Secure the power supply with screws from the rear of the chassis.
3. Connect the necessary power cables to your motherboard and other components.

5.4 Drive Installation

5.4.1 Hot-Swappable Drives (Front Bays)

1. Unlock the drive tray using the provided key.
2. Pull the drive tray out from the chassis.
3. Mount your 3.5" or 2.5" SAS/SATA drive into the tray and secure it with screws.
4. Slide the tray back into the bay until it clicks into place.
5. Lock the drive tray with the key to prevent accidental removal.

5.4.2 Internal Drives

1. Identify the internal mounting points for 2.5" or 3.5" drives.
2. Secure your drives to these mounting points using the appropriate screws.
3. Connect SATA/SAS data and power cables to the installed drives.

5.5 Expansion Card Installation

1. Remove the necessary expansion slot covers from the rear of the chassis.
2. Insert your expansion card (e.g., graphics card, RAID card) into the corresponding PCIe slot on your motherboard.
3. Secure the expansion card with a screw.

5.6 Cable Management

Proper cable management is crucial for optimal airflow and system stability. Use the provided cable ties to neatly route cables, ensuring they do not obstruct fans or components.

6. Operating

6.1 Powering On/Off

- **Power On:** Press the Power button on the front panel.
- **Power Off:** Perform a graceful shutdown through your operating system. Alternatively, press and hold the Power button for 5 seconds for a forced shutdown (use only when necessary).

6.2 Hot-Swapping Drives

The CS351 supports hot-swapping for its front drive bays, allowing you to add or remove drives without powering down

the system. Ensure your operating system and RAID controller support hot-swapping before proceeding.

1. Safely eject the drive from your operating system.
2. Unlock the drive tray using the key.
3. Pull the drive tray out.
4. Replace the drive as needed.
5. Slide the tray back into the bay until it clicks and lock it.

7. Maintenance

7.1 Cleaning

- Regularly clean the exterior of the chassis with a soft, dry cloth.
- Use compressed air to clear dust from fan vents and internal components. Always disconnect power before cleaning internal parts.

7.2 Fan Maintenance

Periodically check the fans for dust buildup and ensure they are spinning freely. Clean or replace fans as necessary to maintain optimal cooling performance.

8. Troubleshooting

If you encounter issues with your SilverStone CS351 chassis, refer to the following common problems and solutions:

- **No Power:**
  - Ensure the power cable is securely connected to both the PSU and the wall outlet.
  - Verify the power switch on the PSU is in the 'ON' position.
  - Check the front panel power button connection to the motherboard.
- **Drive Not Detected:**
  - For hot-swap bays, ensure the drive is fully seated and the tray is locked.
  - Check that SATA/SAS data and power cables are securely connected to both the drive and the motherboard/PSU.
  - Verify that the drive is properly formatted and recognized by your operating system or RAID controller.
- **System Overheating:**
  - Ensure all chassis fans are installed correctly and functioning.
  - Verify that the CPU cooler has adequate clearance (up to 82mm height).
  - Clean any dust buildup from fans and vents.
  - Ensure the chassis is placed in a well-ventilated area.

9. Specifications

Feature	Detail
Brand	SilverStone
Model Number	CS351

Feature	Detail
Item Weight	13.27 pounds
Product Dimensions (LxWxH)	16.18 x 10.43 x 8.23 inches
Color	black
Hard Drive Interface	USB-C (Note: This likely refers to front panel USB-C, not internal drive interface)
Material	Alloy Steel
Compatible Devices	Server
Motherboard Support	Micro-ATX, Mini-DTX, Mini-ITX
PSU Support	Standard PS2 (ATX)
Hot-Swap Bays	5 x 3.5"/2.5" SAS-12G / SATA-6G
Internal Drive Bays	Supports up to 8 x 2.5" and 7 x 3.5" (including hot-swap)
Expansion Card Length	Up to 368mm (14.5")
CPU Cooler Height	Up to 82mm

10. Warranty and Support

SilverStone Technology provides a limited warranty for its products. For detailed warranty terms and conditions, please refer to the warranty card included with your product or visit the official SilverStone website. For technical support, troubleshooting assistance, or to inquire about replacement parts, please contact SilverStone customer service through their official support channels.
For the most up-to-date information and support resources, please visit the SilverStone website:www.silverstonetek.com

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question