Server Cleaning Procedures
Engineering Bulletin

The cleaning procedures described in this document apply to servers in the Premiere line, including 1st generation Cinema One. Cleaning procedures for Alto and Cinema One (2nd generation) can be found in the Player Cleaning Procedures.

Kaleidescape servers must have unobstructed airflow. A server draws cooling air through the front and expels hot air through vents at the back.

The front air intake must be checked every four months. Any accumulated dust or debris in the server must be removed to maintain proper airflow and operating temperature.

Before reinstalling any component, the component's location should also be checked and cleaned of any debris to ensure it does not immediately clog the unit's vents.

Note: Clogged server intake and exhaust vents have caused hard disk drives in the field to rise by a difference of almost 50°F (27°C) above normal operating temperatures. This type of temperature rise reduces the lifespan of the disk drives. See Engineering Bulletin, "Environmental Specifications for Kaleidescape Components."

Preparation

Tools

Secure the following item:

- Vacuum cleaner with small, **soft** dusting brush attachment

- Lint-free cloth.

  CAUTION: Use small, **soft** dusting attachment. Large or hard tool attachments can scratch or damage. Be careful with large attachments on shop vacuum cleaners.

Proper Handling

CAUTION: Disk cartridges are sensitive and susceptible to damage from shock and static electricity. Use extreme care at all times when handling disk cartridges or servers with disk cartridges installed. Do not bump or drop. Be careful not to touch the exposed connectors at the back of disk cartridges. Failure to observe precautions can result in damage to drives and loss of content.

Information on the proper handling of disk cartridges can be found at www.kaleidescape.com/go/drive-handling.

Powering Off

The server must be powered off and cables disconnected before beginning cleaning procedures.

1. Locate the POWER button.

   - **Terra** – The POWER button is behind the front panel in the center.

   - **Terra (Compact)** – The POWER button is in the lower right on the front of the server.

   - **1U+ & 1U Server** — The POWER button is on the front right of the server.

   - **3U Server, 5U Server, Cinema One** —The POWER button is behind the front panel on the right.

2. Press the POWER button.

   - **Terra** – Press and hold for 5 seconds then release.

   - **Terra (Compact)** – Press and hold for 5 seconds then release.

   - **1U Server, 3U Server, 5U Server** – Press and release.

   - **Cinema One** – Press and hold the POWER button until disk cartridge lights turn off.

   - Just pressing and releasing the POWER button puts Terra, Terra (compact) and Cinema One in standby. To verify that the system is completely powered off, check that all the lights are off (power button, front panel, and disk cartridge status indicators).

     CAUTION: After power is off, wait at least 1 minute before removing disk cartridges, or before handling a server with the disk cartridges installed.

3. Disconnect the power cord.

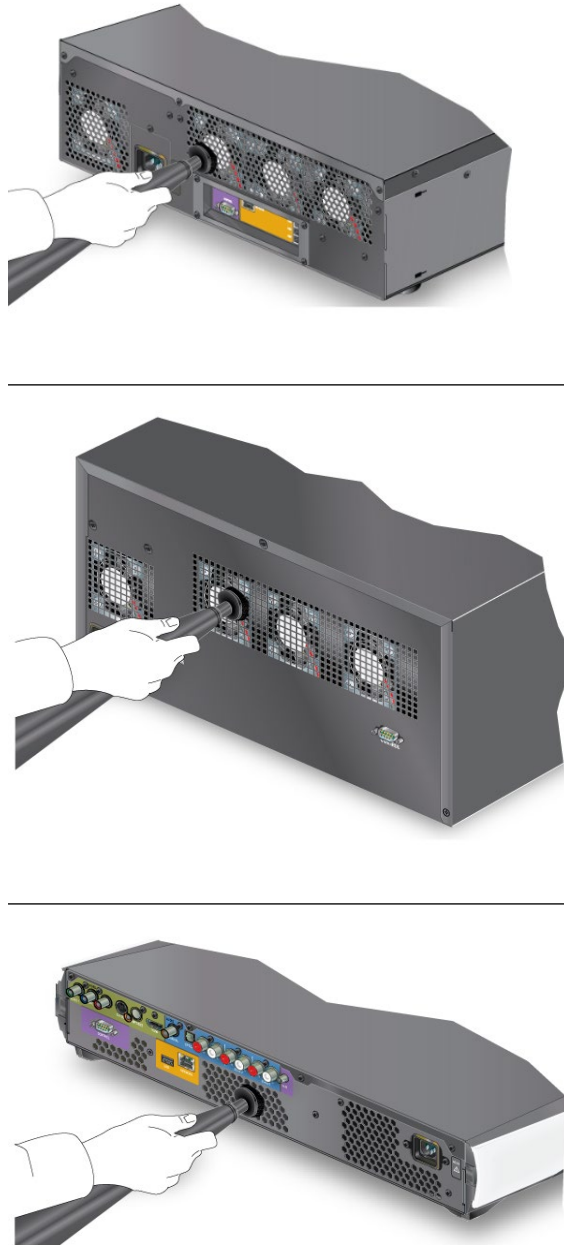4. Disconnect all cables connected to the back of the server.

Cleaning Servers

Use the following procedures to clean the server or Cinema One.

Back Grille

1. Vacuum the entire back of the chassis. Be sure to vacuum all grille areas and outlets. Use a small, **soft** dusting brush vacuum attachment. See Figure 1.

Figure 1 Server and Cinema One Chassis Backs

## Front Panel and Front Grille

1. Access both sides of the front panel.

   - **Terra** — Open the front panel.

   - **Terra (Compact)** — Not applicable.

- **1U+ & 1U Server** — Pull gently on both sides of the front panel and remove.

- **3U Server, 5U Server, Cinema One** — Open the front panel.

Be careful not to damage front panel hinges. Do NOT push down when vacuuming.

2. Vacuum the front panel using a small, **soft** dusting brush attachment. Be sure the air intake areas at the bottom of the front of the panels are cleared of dust and are not blocked by any other objects. See Figure 2.

CAUTION: The front panels are easily scratched. Take extra care with the **soft** brush or take extra steps to protect the front panels.
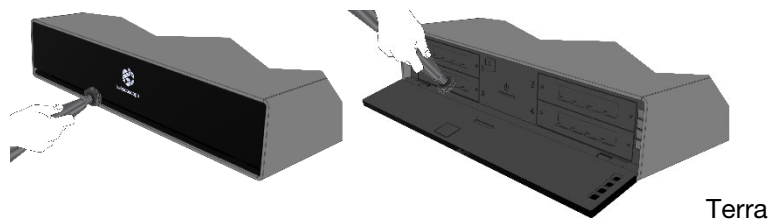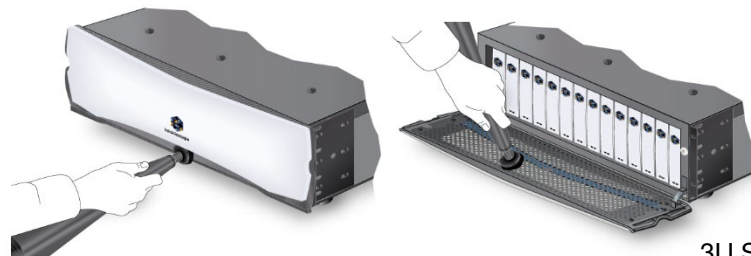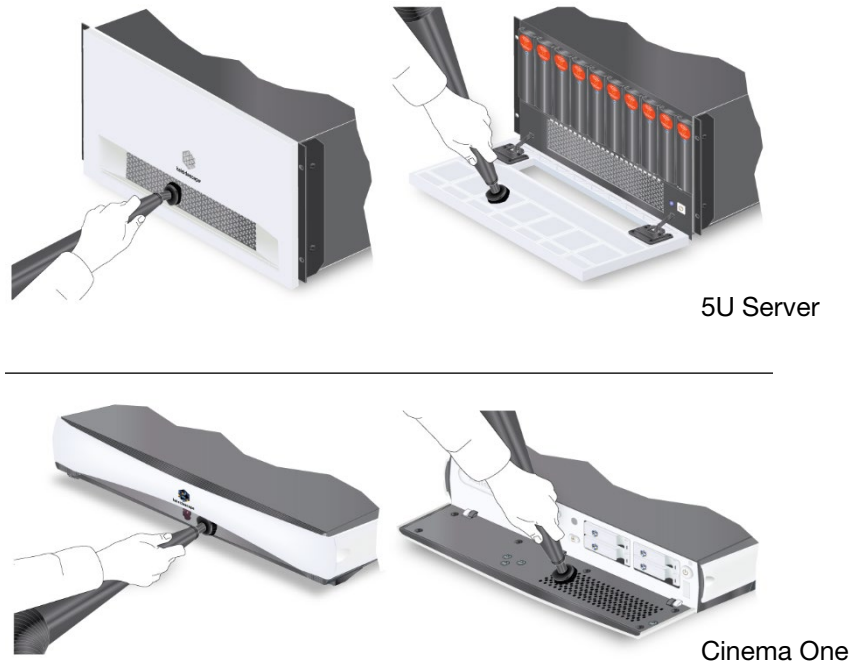

Terra

Terra (Compact)

1U+ & 1U Server

3U Server

5U Server

Cinema One

Figure 2 Server and Cinema One Front Panels

3. Wipe other surfaces gently with a lint-free cloth.

Powering On

Use the following procedure to power on the server after cleaning.

1. Replace power, network, and other cables.

2. Verify disk cartridges are seated properly.

    - **Terra** – Ensure the front of each drive is flush with the front panel.

    - **1U+ & 1U Server, 3U Server** – Gently push in the middle of each disk cartridge. If loose, check for a sticking latch. Loose disk cartridges can prevent a server from booting.

    - For more information about sticking latches, refer to the Service Bulletin, "Servicing Disk Cartridges with Sticking Latches."

    - **5U Server** – Verify that all disk cartridges are evenly aligned.

    - **Cinema One** – Gently push on each disk cartridge.

3. Press and release the POWER button, then wait for the server to power up, this could take up to 5 minutes worst case.

4. For Terra, ensure the hard drive error light is not lit.
    For Premiere Servers, verify that all disk cartridge status indicators glow blue. It takes approximately two minutes for status indicators to light up.

The status indicator for the hot spare disk cartridge in a 3U Server blinks slowly.

5. Replace or close the front panel.

    Note: Be careful not to press POWER button, server is already powered on.

    -   **Terra, 3U Server, 5U Server, Cinema One** – Close front panel.

    -   **1U+ & 1U Server** – Replace the front panel by aligning the six posts on the rear of the front panel with the slots in the chassis and pushing the panel until the panel snaps into place.

Kaleidescape Support

For additional information, contact Kaleidescape Support.

-   Send an email message to support@kaleidescape.com.
-   Call the support line at:
    +1 877-352-5343 Toll Free (US Only)
    +1 650-625-6160

Be prepared to provide the serial number of the Kaleidescape server. Serial numbers are printed on labels located on the backs of all components and behind the front panels of Terra, 3U and 5U Servers.

The Kaleidescape website always has the latest support updates.

www.kaleidescape.com