

## **Product Cleaning Guide: Safe and Effective Practices**

This guide outlines the best practices for cleaning Power Technologies products.

### **General Cleaning (For Routine Maintenance):**

- **Use General Household Cleaners:** For everyday cleaning, standard household cleaners are sufficient and safe.
- **Application:** Apply a small amount of cleaner with a soft cloth or sponge.
- **Removal:** Wipe away the cleaner with a clean, damp cloth.
- **Dust Removal:** For hard-to-reach areas, such as shelves between dividers, use a duster or air duster to remove hair, fuzz and other debris.

### **Disinfection Guidelines for Non-Electrical Components: Exterior Surfaces and Interior Shelving**

#### **Option 1: Bleach Solution (10:1 Dilution):**

- Mix 1 part household bleach with 10 parts water.
- Apply the solution to the surface with a cloth or sponge.
- Rinse thoroughly with clean water.
- **Option 2: Isopropyl Alcohol Solution (70% Dilution):**
  - Mix 70% isopropyl alcohol with water to achieve a 70% concentration. (if you have 70% isopropyl alcohol, you do not need to dilute it)
  - Apply the solution to the surface with a cloth or sponge.
  - Allow the solution to evaporate.
- **Safety Precautions for Disinfectants:**
  - Always wear appropriate protective gear, such as gloves, when working with bleach or alcohol.
  - Ensure proper ventilation.
  - Keep disinfectants out of reach of children and pets.
  - Never mix bleach with ammonia.

### Important Reminders When Cleaning:

- **Avoid Abrasive Cleaners:** Do not use abrasive cleaning solutions, as they can damage the product's surface.
- **Avoid Acidic Cleaners & Harsh Chemicals:** Do not use acidic cleaning solutions or harsh chemicals, as they can corrode or discolor paint.
- Always test any cleaning solution on a small, inconspicuous area first.
- Regular cleaning is essential for maintaining the product's appearance and hygiene.
- Always let areas dry completely before use.

### Troubleshooting

#### USB-C Port and Cable Failure:

##### Key Issues and Causes:

- **Fragile Design:**
  - USB-C connectors have very closely spaced pins (0.5mm).
  - This makes them highly susceptible to damage from even small particles.
  - Think of a grain of sand (0.5-2mm) as a potential culprit.
- **Debris and Liquid:**
  - Dust, sand, lint, and liquids can easily enter ports.
  - These contaminants can cause:
    - Short circuits.
    - Corrosion.
    - Heat buildup.
- **Physical Damage:**
  - Bent or crushed connectors (e.g., from being shut in doors).
  - Excessive force during insertion or removal.
  - Cable strain from improper handling.
- **Heat Buildup:**

- Debris can cause poor connections.
- Poor connections generate heat.
- Excessive heat can melt the plastic housing, leading to pin misalignment and shorts.

### **Troubleshooting and Prevention Tips:**

#### **1. Visual Inspection:**

- Visually inspect ports and cables for:
  - Visible debris.
  - Bent or broken pins.
  - Signs of corrosion.
  - Crushed or broken connector housings.

#### **2. Cleaning Recommendations:**

- Use non-conductive tools (e.g., soft brushes, compressed air).
- Advice against using metal objects that could cause damage.
- **Recommend Cleaning Kits:**
  - Affordable cleaning kits are available on Amazon (under \$10).
  - These kits typically include brushes, swabs, and compressed air.

#### **3. Handling and Storage:**

- Avoid if possible:
  - Bending cables sharply.
  - Storing cables in tight spaces.
  - Leaving cables plugged in when not in use (especially in high-traffic areas).

#### **4. Damage Assessment:**

- Potential physical damage?
- Environmental factors (dusty, humid)
- Liquid encounter?

#### 5. When to Escalate:

- If cleaning and basic troubleshooting do not resolve the issue, advise the contact technical support or consider a repair/replacement.

#### Key Takeaways:

- USB-C is a sensitive technology.
- Prevention is key.
- Simple cleaning and careful handling can significantly reduce failures.
- By providing this information, you are adding value to customer experience.