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› ElecGear USB Type C to Micro-USB Replacement Port Installation Manual

## ElecGear B0DBZHMCXB

# ElecGear USB Type C to Micro-USB Replacement Port Installation Manual

Model: B0DBZHMCXB

## 1. INTRODUCTION

This manual provides comprehensive instructions for upgrading your device's Micro-USB 2.0 port to a more stable and versatile USB Type-C port using the ElecGear Replacement Port kit. This upgrade supports both power supply and USB 2.0 data transfer, offering a reversible connection without direction restrictions. This DIY repair requires advanced soldering skills and is not recommended for beginners.

## 2. SAFETY PRECAUTIONS

- Always work in a well-ventilated area.
- Wear appropriate personal protective equipment, including safety glasses and heat-resistant gloves.
- Ensure your soldering iron and other tools are in good working condition and properly grounded.
- Be aware that modifying your device may void its warranty.
- Exercise extreme caution when handling hot components and sharp tools.
- Disconnect power from the device before beginning any work.

## 3. PACKAGE CONTENTS

The ElecGear USB Type C to Micro-USB Replacement Port kit includes the following items:

- 2x USB C to Micro-USB Replacement Ports
- 1x Heating Plate (for desoldering)
- 1x Soldering Wick
- 1x Manual Grinding Bit
- 1x T6 Screwdriver
- 1x T8 Screwdriver
- 1x Installation Guide (English)

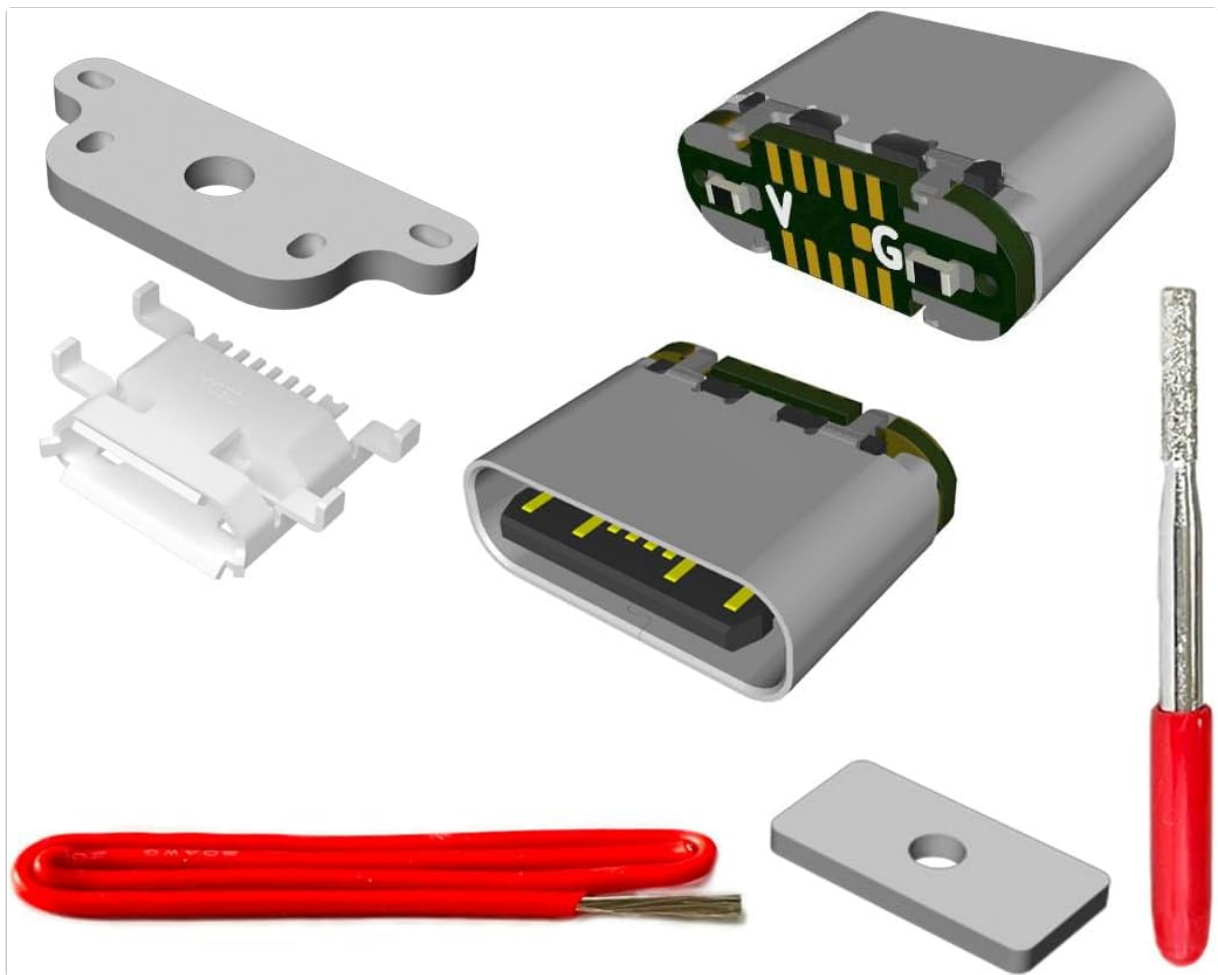


Figure 1: Components included in the ElecGear USB Type C to Micro-USB Replacement Port kit.

## 4. COMPATIBILITY

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This replacement port is designed for a wide range of devices that use Micro-USB ports, including:

- Power banks
- Android Smartphones
- Hard drive enclosures
- Card Readers
- Digital Cameras
- PDAs
- Headphones/Earbuds
- Mice
- Night Lights
- Remote Controls
- MP3/MP4 players
- Bluetooth Speakers
- Vehicle Cams
- Electronic screwdrivers
- Xbox One controllers (models 1537, 1708, 1697, 1698)

**Important Note:** The USB Type-C port is slightly larger than a standard Micro-USB port. You may need to enlarge the port opening on your device's casing. This modification may void your device's warranty.

# Micro-USB to USB C Adapter Port

Upgrade the old **Micro-USB** female port to **USB Type C** with USB 2.0 Data Card Reader, Camera, PDA, Remote Control, MP3 MP4, Speaker, Vehicle Cam, Screwdriver and more ...



Figure 2: Various devices that can be upgraded with the USB Type-C replacement port.

## 4.1 Micro-USB Port Orientations

Micro-USB ports can have two main orientations: Forward and Reverse. It is crucial to determine the orientation of your device's existing port before proceeding with the replacement.

- **Forward Layout:** Most common, with the short side of the port lying on the PCB.
- **Reverse Layout:** Less common, with the long side of the port lying on the PCB (e.g., some Xbox and PS4 controllers).

The ElecGear USB Type-C replacement port can be flipped to accommodate both Forward and Reverse Micro-USB layouts. You must use a multimeter to verify the Vcc (5V) and Gnd (Ground) pins on your device's PCB to ensure correct orientation of the new port.

# Replace most Micro-USB Ports

*Directly replace common Forward and Reverse Micro-USB ports. Not for Mini-USB Ports.*



Most common Micro-USB ports are in a **Forward Layout**, with the short side lying on the PCB



Xbox

PS4



Some are **Reverse Layout** with the long side lying on the PCB



These are **Sinking types** and may require additional MOD



Not compatible with **Mini-USB** and the **Direct soldering type** Micro-USB

Figure 3: Illustration of common Micro-USB port types and layouts (Forward, Reverse, Sinking).

# Determine a Reverse or Forward Port

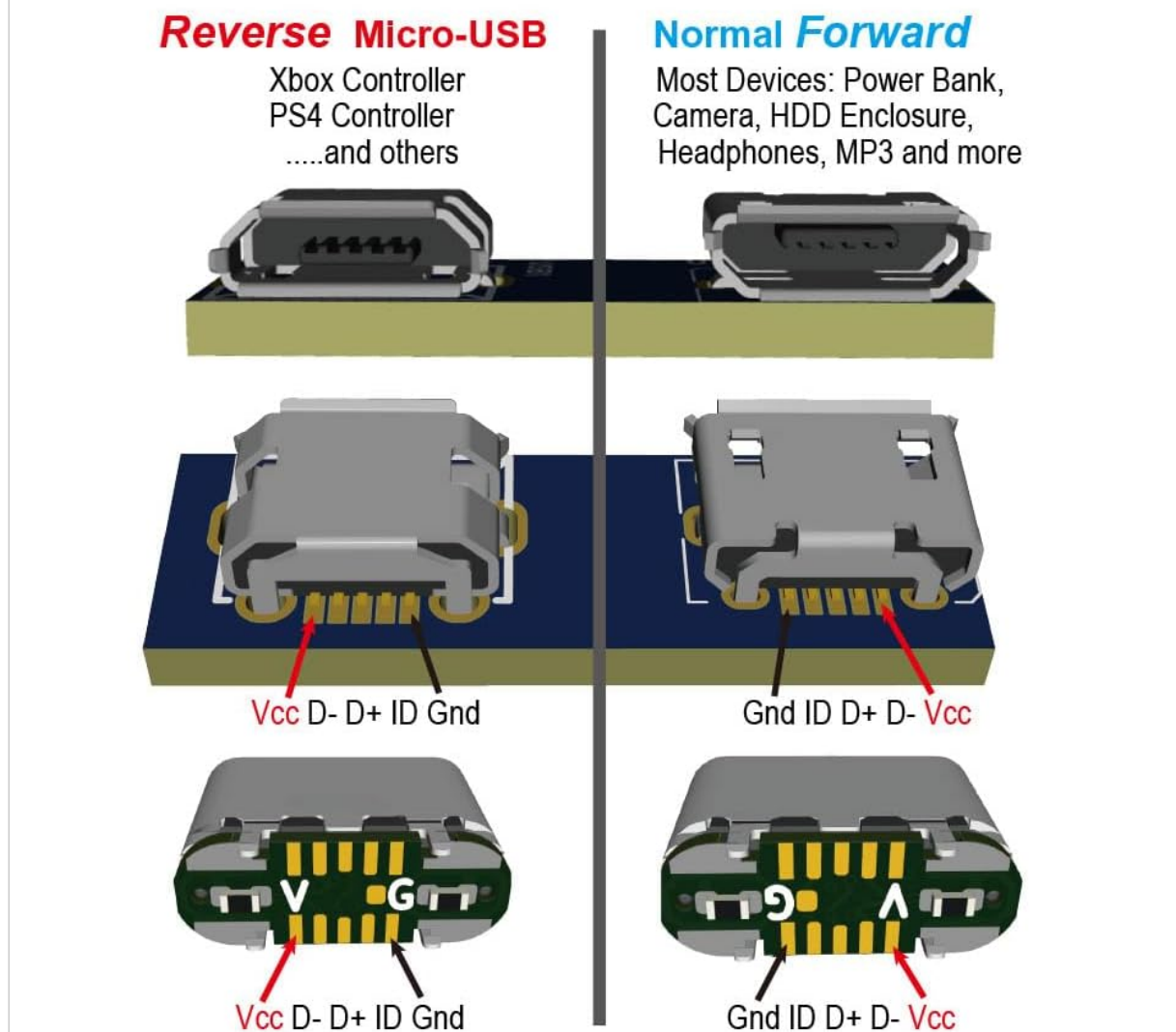


Figure 4: Pinout diagram for Reverse Micro-USB (e.g., Xbox Controller) and Normal Forward Micro-USB (e.g., Power Bank).

## 5. INSTALLATION INSTRUCTIONS (ADVANCED DIY)

This installation process involves delicate soldering and modification. Proceed with caution and only if you possess the necessary skills and tools.

### 5.1 Tools Required (Not all included in kit)

- Soldering Iron with various tips (including a large tip for desoldering)
- Solder (thin gauge recommended)
- Flux (liquid or paste)
- Solder Wick or Multi-strand wire (for solder removal)
- Tweezers (fine-tip)
- Multimeter (for checking pinouts)
- Small file or grinding bit (for enlarging port opening)
- Isopropyl Alcohol and cotton swabs (for cleaning)
- T6 and T8 Screwdrivers (included)
- Heating Plate (included)
- Nickel Strip (included, for securing)

### 5.2 General Installation Overview

The following video provides a detailed demonstration of the installation process, specifically for an Xbox controller and a keyboard. It covers identifying port types, desoldering, soldering, and casing modification.

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Video 1: Detailed installation guide for ElecGear USB Type C to Micro-USB Replacement Port, demonstrating the process on an Xbox controller and a keyboard.

### 5.3 Step-by-Step Installation (Xbox Controller Example)

Refer to the video (Video 1) from 1:43 for a visual guide on an Xbox controller.

1. **Disassemble the Device:** Carefully open your device (e.g., Xbox controller) and remove the PCB.
2. **Prepare for Desoldering:**
  - Support the PCB on a stable surface.
  - Place the heating plate (included) at the back of the Micro-USB port on the PCB to aid in heat transfer.
  - Apply flux to both the front and back joints of the Micro-USB port.
  - **Caution:** Xbox PCBs are paper-based and sensitive to high temperatures. Set your soldering iron temperature carefully (e.g., around 330°C as shown in the video).
3. **Desolder the Old Micro-USB Port:**
  - Use a large iron tip and add some solder to it to heat up the joints effectively.
  - Use solder wick or multi-strand wire to remove the old solder from the pins and mounting points.
  - Once the solder is molten, carefully remove the old Micro-USB port using tweezers.
4. **Clean the PCB:** Clean the area with pure alcohol or PCB liquid to remove any flux residue.
5. **Position the New USB-C Port:**
  - Determine the correct orientation (Forward or Reverse) for your device by checking the Vcc and Gnd pins with a multimeter. For Xbox controllers, the V mark on the new port should be on the left.
  - Carefully place the new USB-C replacement port onto the PCB, ensuring it aligns with the pads.
6. **Solder the New USB-C Port:**
  - Solder the first Ground (Gnd) joint with a small iron tip to secure the port.
  - Adjust the port if necessary to ensure perfect alignment.
  - Solder the second Ground (Gnd) joint.
  - Solder the remaining 5 pins. Apply flux and let the iron tip touch the golden edges of the pins.
  - **Important:** Closely check all connections for any short circuits. Use a smartphone camera to enlarge the view for inspection.
7. **Secure the Port with Nickel Strip:**
  - Cut a small strip from the included nickel plate.
  - Solder one side of the nickel strip to the PCB and the outer case of the port.
  - Wrap the nickel strip tightly around the port's outer case and solder the other end to the PCB.
  - Trim any excess nickel strip.
8. **Modify Device Casing (if necessary):**
  - The original Micro-USB hole on your device's casing may not be sufficiently enlarged.
  - Use the included manual grinding bit to carefully widen the hole to approximately 9mm. This process requires patience.
  - Clean any debris from the grinding process.

9. **Reassemble the Device:** Carefully reassemble all the boards and parts of your device.

## Upgrade an Xbox One Controller

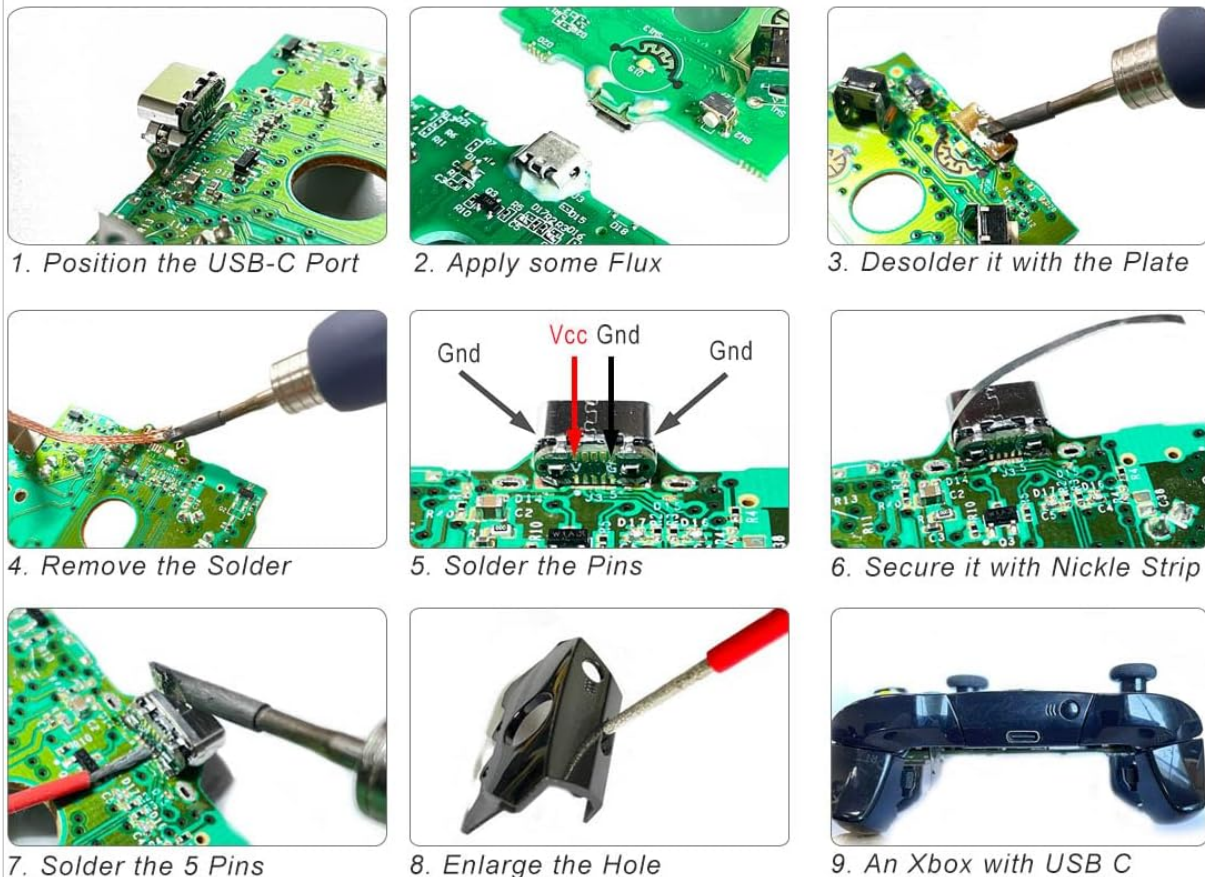


Figure 5: Visual steps for upgrading an Xbox One controller's Micro-USB port to USB-C.

## 6. OPERATING INSTRUCTIONS

Once the USB Type-C replacement port is successfully installed, you can use it for charging and data transfer just like a standard USB-C port.

- Connect a compatible USB Type-C cable to the newly installed port on your device.
- Connect the other end of the cable to a power source (for charging) or a computer (for data transfer).
- The reversible design of USB Type-C allows for insertion in either direction.

## 7. MAINTENANCE

- Keep the USB-C port free from dust and debris. Use a soft, dry brush or compressed air for cleaning.
- Avoid applying excessive force when inserting or removing cables to prevent damage to the port or soldered connections.
- Regularly inspect the port for any signs of wear or damage.

## 8. TROUBLESHOOTING

- **Device not charging/data transfer not working:**
  - Check all soldered connections for cold joints or short circuits. Re-solder if necessary.
  - Verify the correct orientation of the USB-C port (Vcc and Gnd pins) using a multimeter.
  - Ensure the USB Type-C cable is functional and properly connected.

- **Loose connection:**
  - Inspect the nickel strip and its solder points for secure attachment.
  - Ensure the port is firmly seated on the PCB.
- **USB-C cable does not fit:**
  - The device casing's port opening may not be sufficiently enlarged. Re-evaluate and carefully widen the opening using the grinding bit.

## 9. SPECIFICATIONS

| Feature            | Detail                                                                                                                                                                                                                                                                     |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Brand              | ElecGear                                                                                                                                                                                                                                                                   |
| Model              | B0DBZHMCXB                                                                                                                                                                                                                                                                 |
| Hardware Interface | USB Type C                                                                                                                                                                                                                                                                 |
| Compatible Devices | Android Smartphone, Bluetooth Speaker, Camera, Digital Cameras, Electronic screwdriver, Hard drive enclosure, Headphones, Laptops, MP3 MP4, Microphone, Mouse, Night Light, PDA, Personal Computer, Power bank, Remote Control, Vehicle Cam, Xbox One controller and more. |
| Total USB Ports    | 2 (replacement ports included)                                                                                                                                                                                                                                             |
| Data Transfer Rate | 480 Megabits Per Second (USB 2.0 standard)                                                                                                                                                                                                                                 |
| Package Dimensions | 3.39 x 2.48 x 0.47 inches                                                                                                                                                                                                                                                  |
| Item Weight        | 0.352 ounces                                                                                                                                                                                                                                                               |

## 10. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official ElecGear website. Please note that DIY modifications may affect your device's original warranty.