# NINTENDO NES USB-C KIT



PLEASE READ THROUGH THESE INSTRUCTIONS ENTIRELY BEFORE ATTEMPTING TO INSTALL

WARNING: IF YOU ARE NOT COMFORTABLE WITH SOLDERING, OR PERFORMING ANY STEP IN THIS GUIDE, DO NOT PERFORM THE INSTALL YOURSELF.
FIND SOMEONE WHO IS COMFORTABLE TO DO IT FOR YOU.

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## **DESCRIPTION**

The **Nintendo NES: USB-C Kit** is a board that allows to replace the original power connector for a modern and standard USB-C.

If your original connector is too old or damaged and you need a new one, or if you would like to power up your Nintendo NES with a standard USB-C charger, such as the charger for your Nintendo Switch, phone, or laptop, you can do so with this kit.

Moreover, with this board, you can remove the original, old, and inefficient power converter. Since the console operates at 5V, you only need the power from USB-C and a regular charger.

## **FEATURES**

- Exact shape for Nintendo NES.
- External power through USB-C.

# **INCLUDED**

- 1 USB-C board.
- 2 Cables.
- 1 Plastic cap for the USB-C board.
- 1 Plastic cap retainer.

# RECOMMENDED / REQUIRED [NOT INCLUDED]

- Phillips screwdriver.
- Cutting plier.
- Soldering iron / hot-air soldering station.
- Tin.
- Flux.
- Desoldering pump.
- Desoldering mesh.
- Isopropyl alcohol.

## **NOTES**

This mod disables the video output through the antenna connector, so you will always need to use the AV output.

## **BOARD DETAILS**

There are 2 pads where the included wires can be soldered. The following explains what each pad is for.



- + The +5V line output to power the NES main board.
- **-** The ground pad.

# **INSTALLATION STEPS**

Please, carefully read the following steps for a successful installation.

## PRE INSTALLATION STEPS

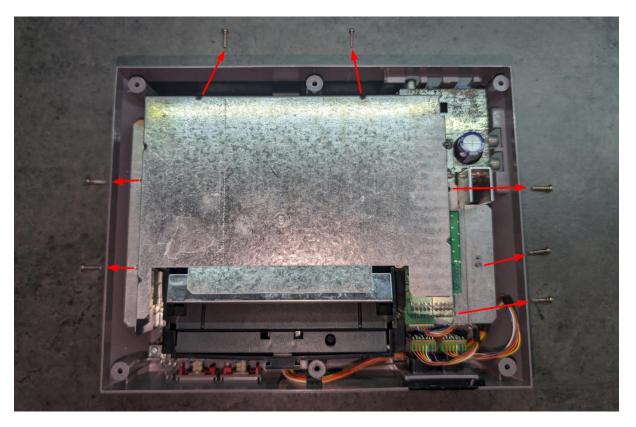
Before the installation, your NES may need some extra steps to have it ready for the kit.

#### 1. DISASSEMBLY THE NINTENDO NES

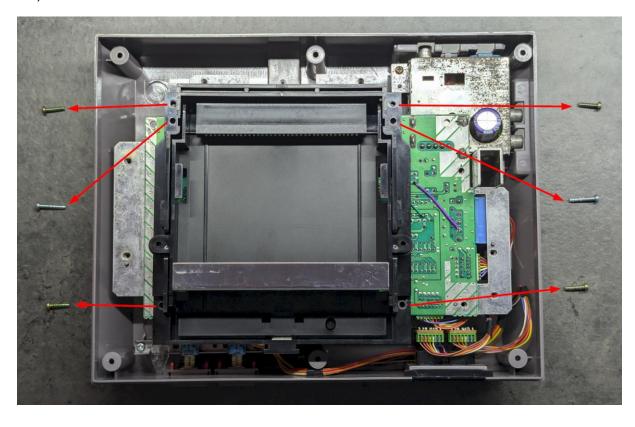
Use **phillips** screwdriver to open the shell and remove the 6 screws.



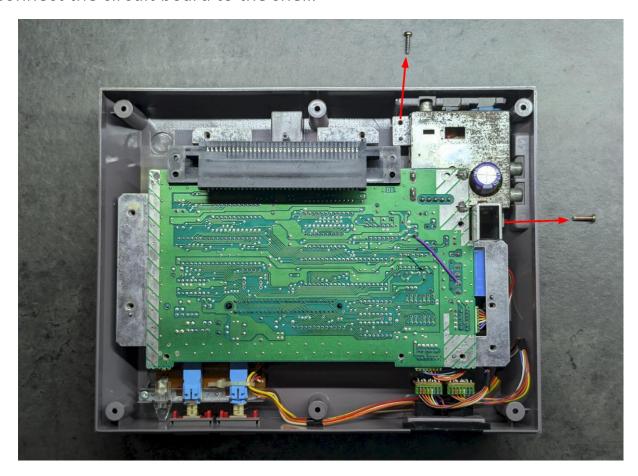
Next, remove these 7 screws to release the metal frame covering the console.



Remove these 6 screws that hold the game cartridge compartment in place. Then, take it out as well.



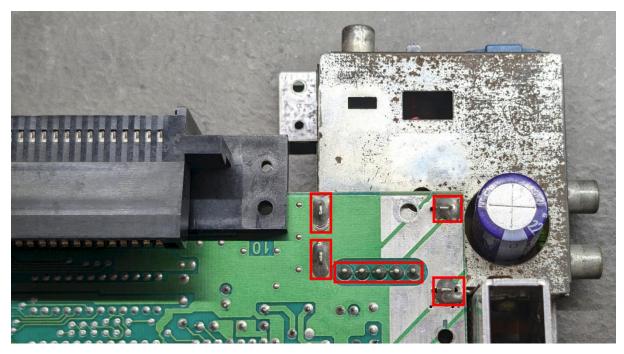
Finally, take out these 2 screws. After that, you can remove the circuit board from the lower shell, but first, disconnect the three cables that connect the circuit board to the shell.

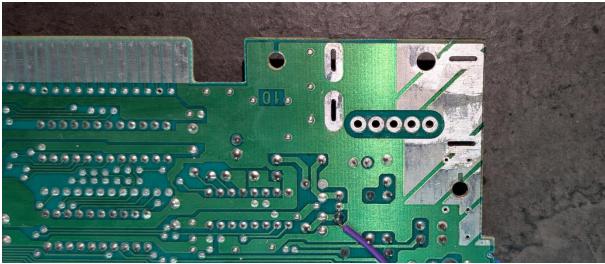


Now begins the most complex part of the installation. You need to remove the metal box that contains all the power, video, and audio connectors. Inside, you'll find the power connector, which needs to be replaced, along with some small modifications to the circuit.

Desolder all these pads using the soldering iron at maximum power. If you have a hot air soldering station, you can heat the PCB simultaneously to help with the process.

**IMPORTANT NOTE**: If you use a hot air station, cover the blue capacitor on the right with kapton tape. You should also remove the game connector on the left (it's not soldered, just slotted in, and can be easily removed and reinserted).

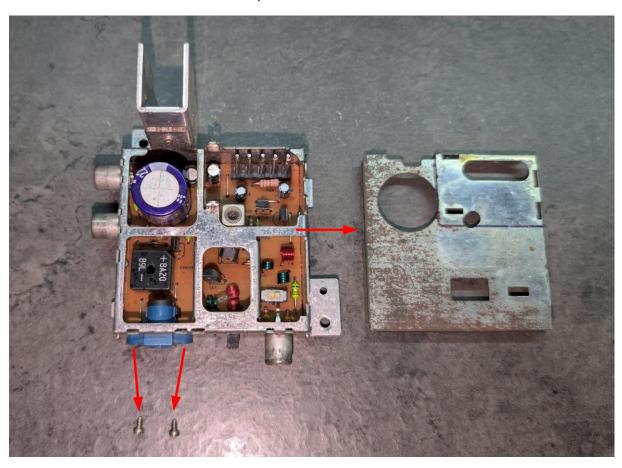




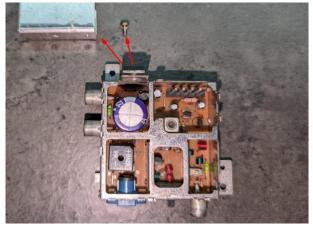
## **INSTALLATION STEPS**

#### 1. REMOVE UNNECESSARY COMPONENTS

Remove the top and bottom metal covers from the metal box. Also, remove the 2 screws that secure the power connector to the metal box.



Next, remove the screw and the heatsink from the voltage regulator. After doing that, you can desolder and remove it from the circuit, as it will no longer be needed once the kit is installed.

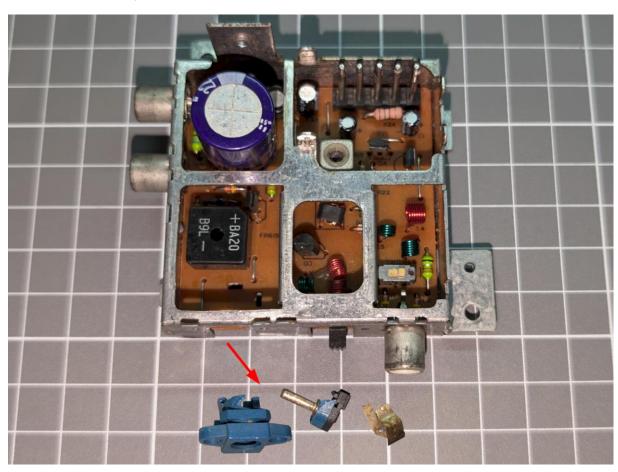




It's impossible to remove the power connector without breaking it. This is because the metal shell and the circuit board encase the connector.

The easiest and most recommended way is to destroy the power connector using cutting plier, allowing it to be removed. To do this:

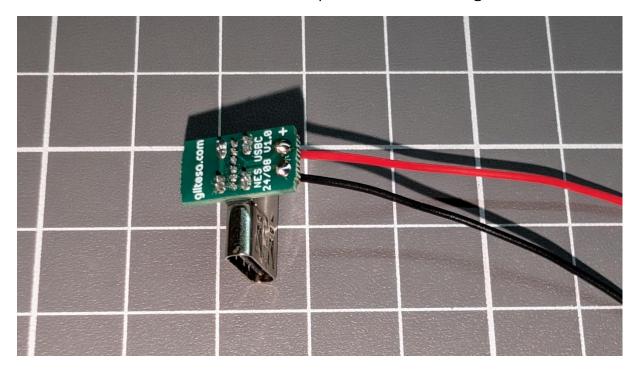
- First, desolder the connector, trying to remove as much solder as possible from its 3 pads.
- Then, use cutting plier to cut it into pieces until it is completely removed.
- Finally, make sure the pads where the connector was soldered are completely free of solder, with the holes fully clear. This is necessary for later steps.



#### 2. CABLE INSTALLATION

Solder the included wires onto the pads of the USB-C board. Solder the **red** wire to the pad marked with a +, and the **black wire** to the pad marked with a -

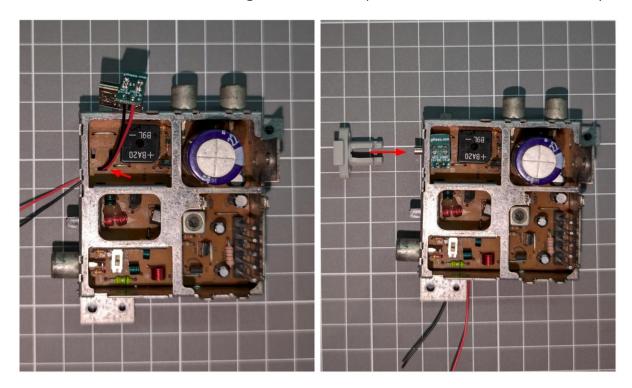
Clean the circuit with alcohol once you finish soldering the wires.



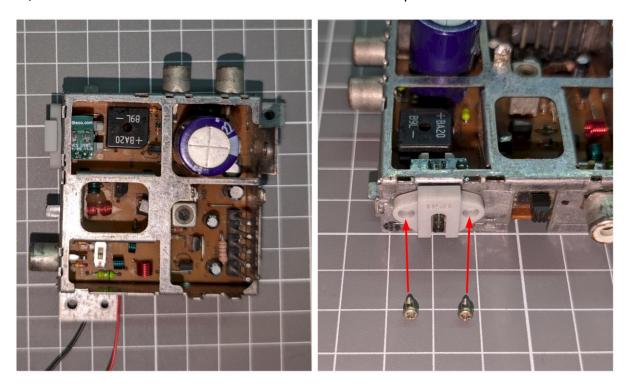
To install the connector, follow the steps shown in these images:

First, thread the wires through the lower hole where the power connector was originally soldered.

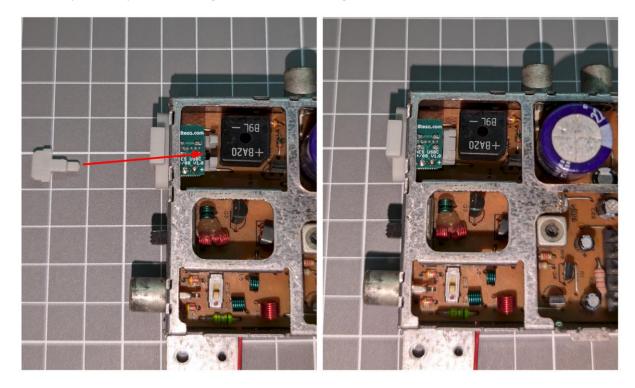
Then, insert the plastic cover into the hole in the metal shell, making sure the USB-C connector fits into the groove of the plastic cover simultaneously.



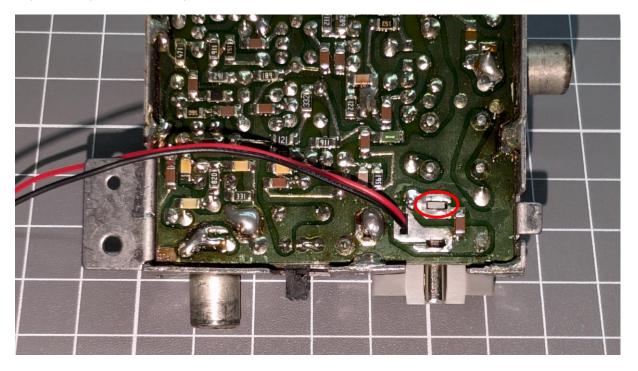
Screw in the two small screws that originally secured the power connector. Now, these screws should be used to fasten the plastic cover from the kit.



Finally, insert the plastic pin into the plastic cover. This will hold the USB-C board in place, preventing it from moving.



The plastic pin should protrude from the underside of the circuit board.



Optionally, you can add instant glue, although it shouldn't be necessary.

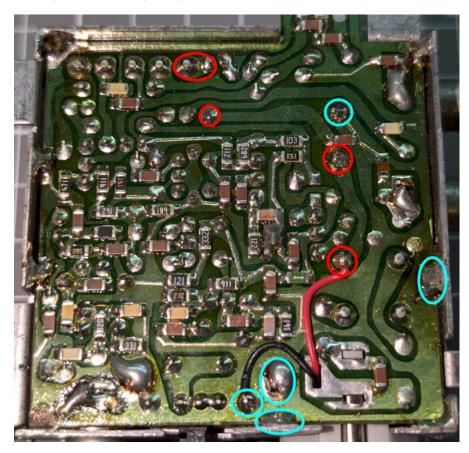
Solder the wires onto these two pads, making sure they are cut to the correct length beforehand.



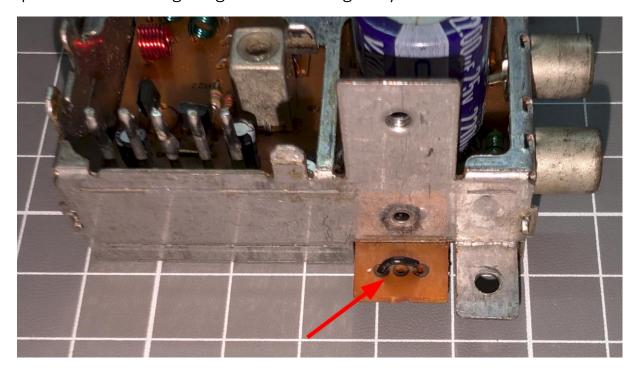
Since there are different versions of the circuit and the pads may be slightly repositioned, you can ensure that you are soldering each wire to the correct location by using a multimeter.

The **black wire** (GND) should be soldered to the pad shown in the photo, which is connected to the GND plane of the circuit and the metal shell covering it.

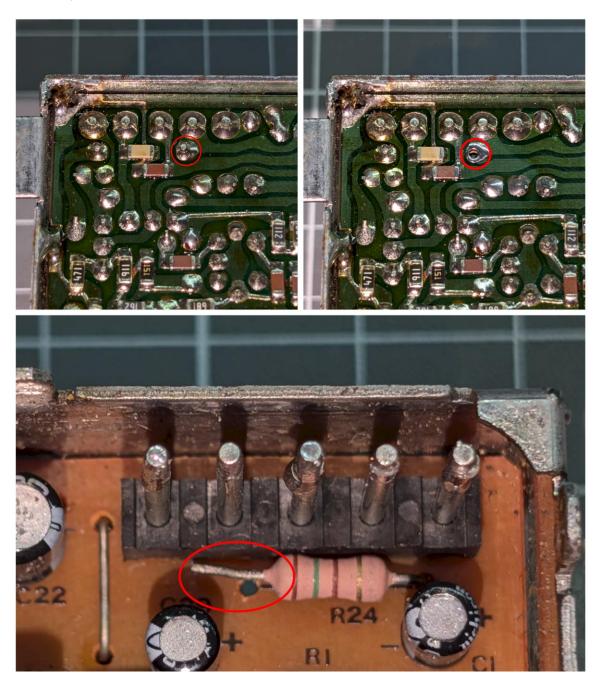
The **red wire** should be connected to the positive pad of the large capacitor, as well as to the power output pin.



With a piece of leftover wire, create a bridge between the two pads of each loop where the voltage regulator was originally soldered onto the console.



Finally, it is necessary to desolder the left pin of this resistor to cut off the power to the antenna module. This module operates with more than 5V and will be disabled with this mod. Disconnecting its power input will prevent any interference.



With this, the installation is complete.

## 3. DONE!

Follow the steps backward, placing each thing in its place, and the installation will be complete!





# FREQUENTLY ASKED QUESTIONS - FAQ

Nothing yet