How to Fix iPhone 7 Plus Won't Turn On After Water Damage

How to Fix iPhone 7 Plus Won't Turn On After Water Damage iPhone 7 Plus Won't Turn On Water Damage Repair

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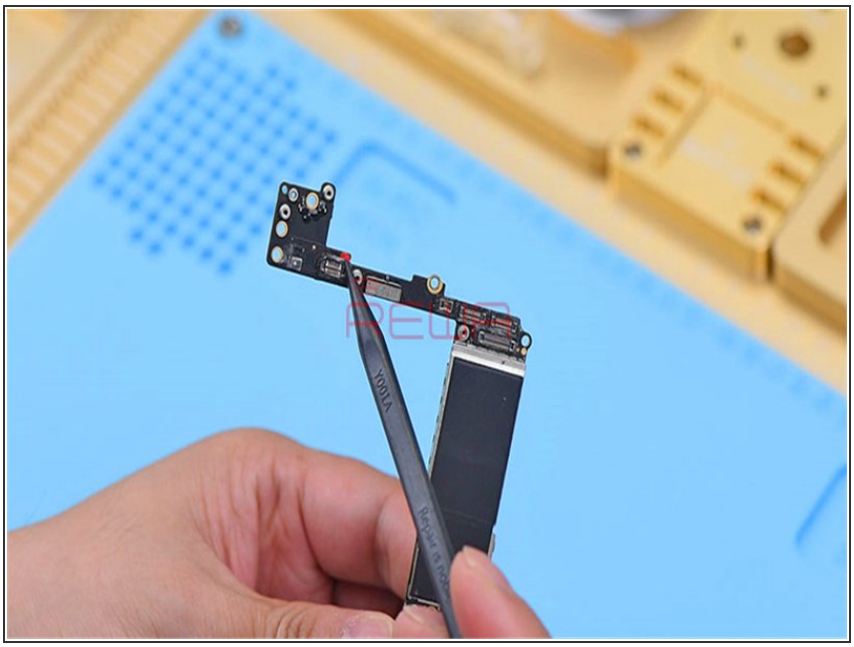
INTRODUCTION

As we all know, when supplying the short-circuited logic board with power, faulty components on it will get hot. For logic board bearing significant fever, we can locate the faulty component quickly and precisely with 'rosin smoking' method or freeze spray method. Today we are going to introduce a repair case for iPhone 7 won't turn on after water damage.

TOOLS:

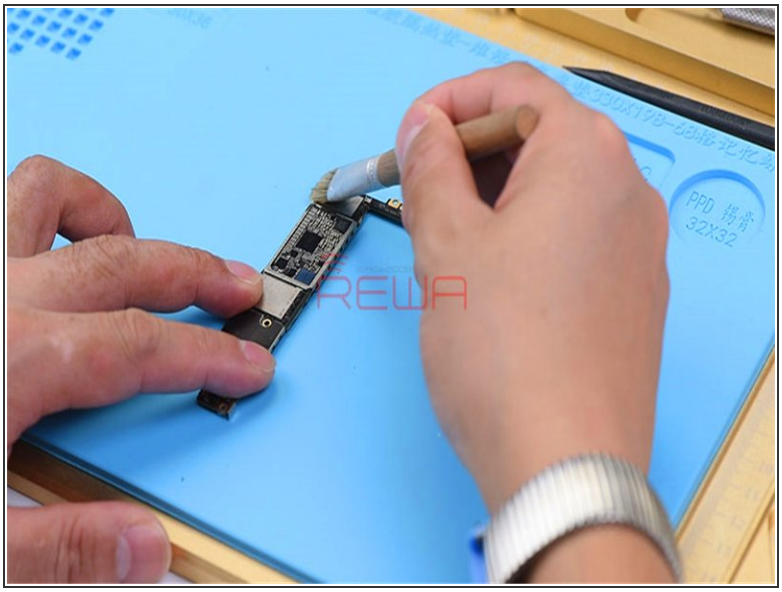
- DC Power Supply (1)
- Refox (1)

Step 1 — How to Fix iPhone 7 Plus Won't Turn On After Water Damage



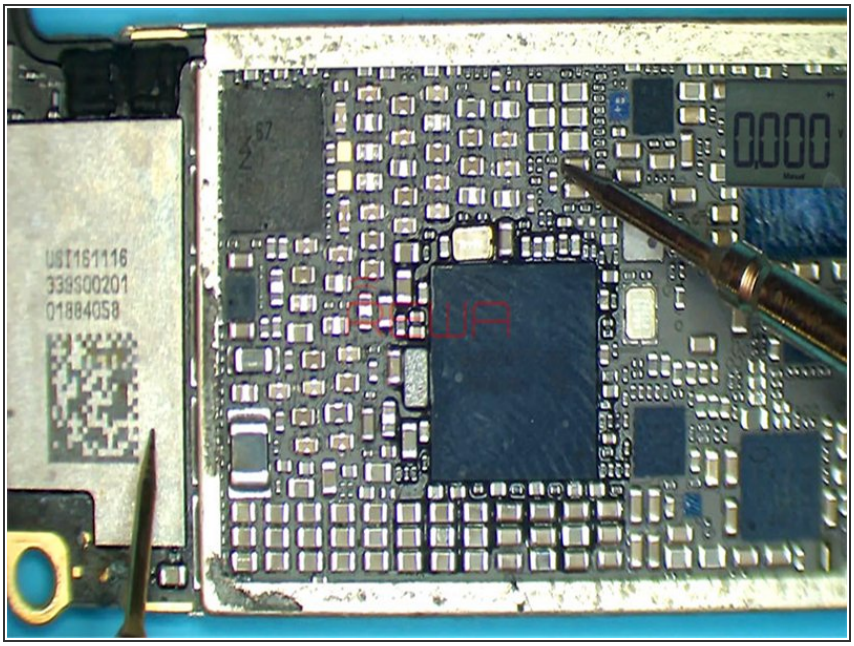
- Check the logic board carefully. The water damage indicator is red.
- Areas around the WiFi module bear obvious signs of water damage.

Step 2



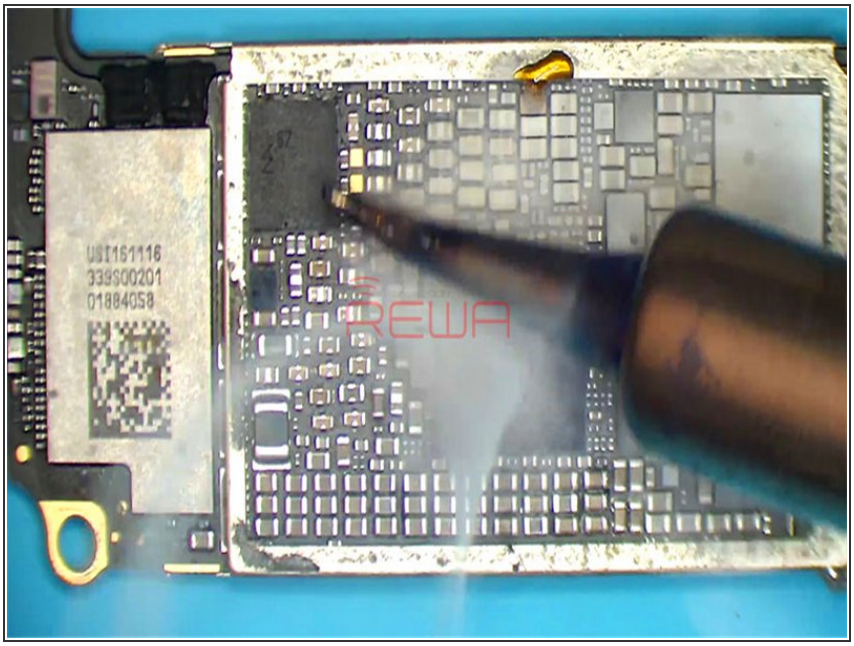
- First, let’s clean moldy area on the logic board with PCB Cleaner.
- Then measure the boot current. The reading is larger than normal value.
- One rail of power supply of the logic board might have short-circuited.

Step 3



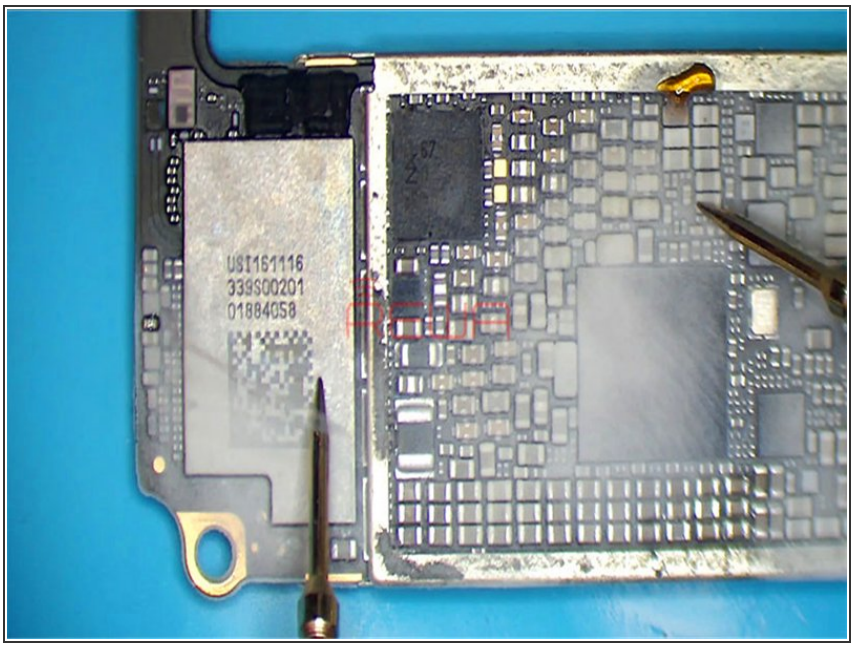
- Run diode mode measurement of PP_BATT_VCC and PP_VDD_MAIN first. Nothing goes wrong.
- Next, we need to check several rails of power supply outputted from PMU.
- The measured value of C2302 and C2308 on PP_VDD_BOOST is 0, which is abnormal.
- So PP_VDD_BOOST has short-circuited.

Step 4



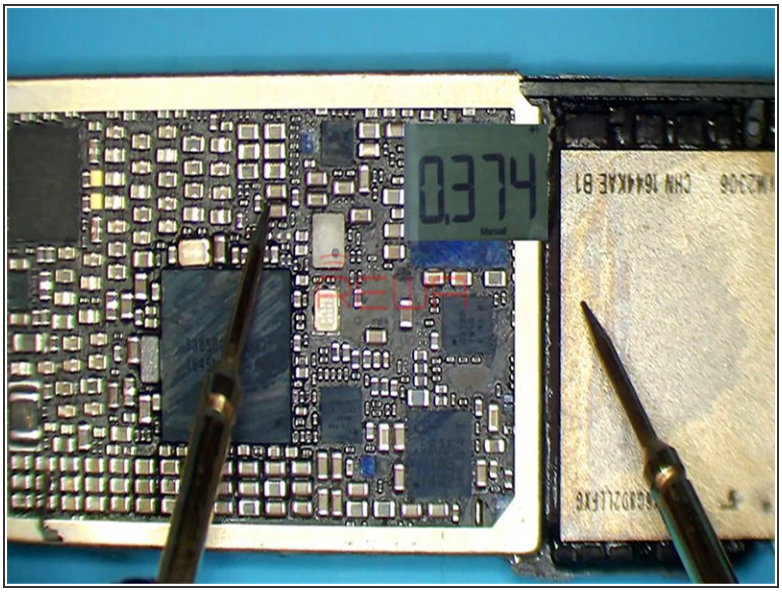
- Since there are so many components on the circuit, we can confirm the faulty component with ‘rosin detecting’.
- Dip some rosin with Soldering Iron, and smoke rosin on relevant components.

Step 5



- Then, connect the two test leads of the Multimeter with DC Power Supply. Set voltage of the DC Power Supply to 3V. Get the black lead grounded. Meanwhile, get the red lead touched with Pin 1 of C2308.
- Rosin on C3002 melts immediately. Judging by this, the short-circuited condition is caused by damage of C3002.

Step 6

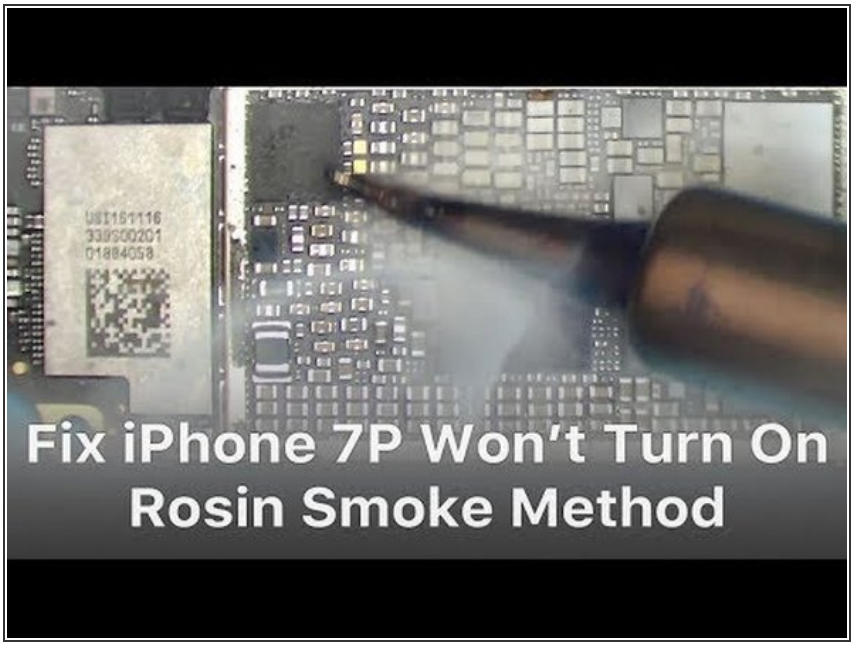


- Since C3002 is a filter capacitor, we can fix the problem by detaching it from the board.
- Continue to run diode mode measurement of C2308, the measured value is normal.
- Measure the boot current. The reading is normal this time.

Step 7

- Now we can assemble the phone and test.
- Press power button. The phone turns on normally.

Step 8



- Fro more iPhone repair tutorials, please visit REWA YouTube Channel.
- Credit: REWA Technology

Also, for repair technicians, it's important for you to understand how iPhone boot circuit works before starting your repair work.

