



How iPhone X Boot Circuit Works

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U2700 PMU

U3100 3.4V Boost

U3300 Charging IC

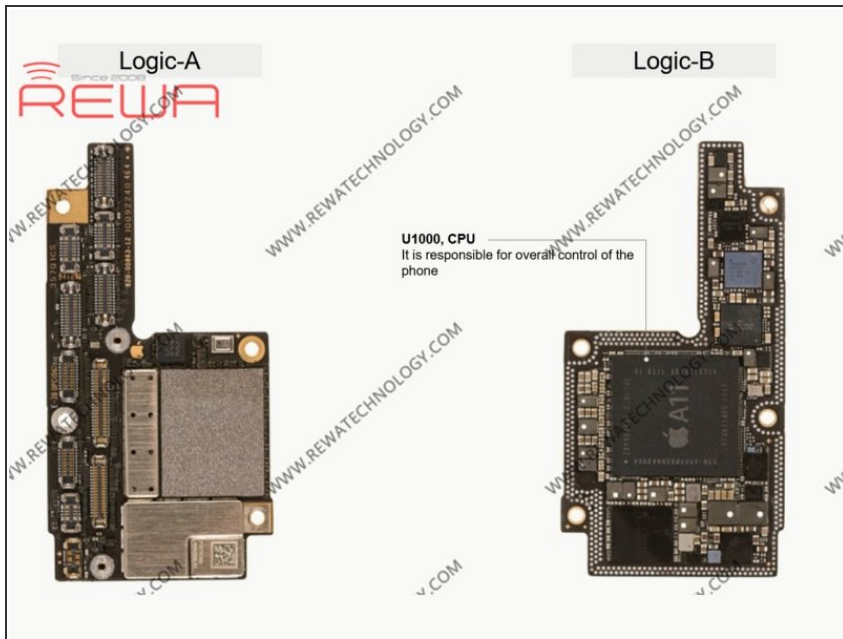
U1000 CPU

- ① PP_CPU_PCORE (0.67V ~1.0V)
- ② PP_GPU (0.67V ~1.0V)
- ③ PP_SOC_S1 (0.67V ~1.0V)
- ④ PP_1V8_S2_WL_CONN
- ⑤ PP1V8_IO
- ⑥ PP1V1_S2
- ⑦ PP0V7_VDD_LOW
- ⑧ PP0V8_SOC_FIXED
- ⑨ PP_CPU_SRAM (0.8V)
- ⑩ PP_GPU_SRAM (0.8V)
- ⑪ PP_DCS_S1 (0.875V)
- ⑫ PP0V6_VDDQL_S1
- ⑬ PP_CPU_ECORE (1.0V)
- ⑭ PP1V2_SOC
- ⑮ PP1V2_LPADC
- ⑯ PP0V9_NAN
- ⑰ PP3V0_NAN

INTRODUCTION

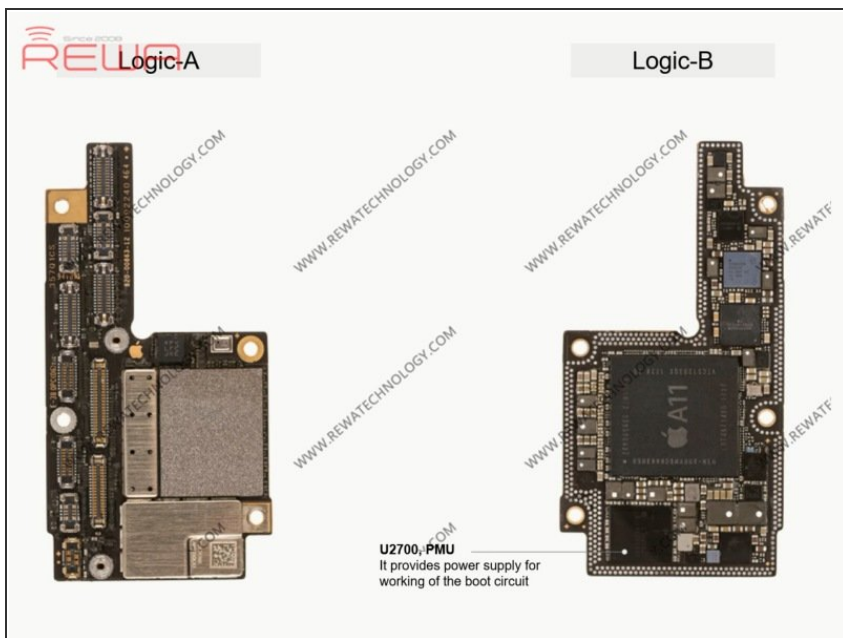
The boot circuit can be regarded as logic board trigger circuit. To have the phone turned on, working conditions like power supply, clock signal and reset signal are indispensable. What's more, CPU has to get key components into power-on self-test process and get the bootstrap imported. Since there are so many components involved in the process, reasons for won't turn on of the phone can also be various.

Step 1 — Main Components On Boot Circuit



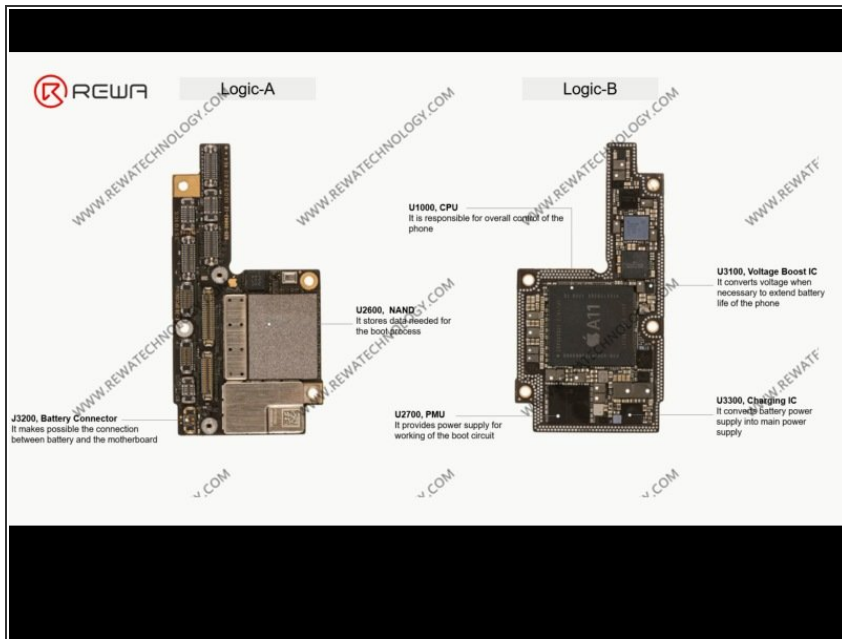
- U1000, CPU
- This chip is the most important chip on the motherboard. As the central processing unit, It works just like our brain to control every part of our body. So it is responsible for overall control of the phone.

Step 2



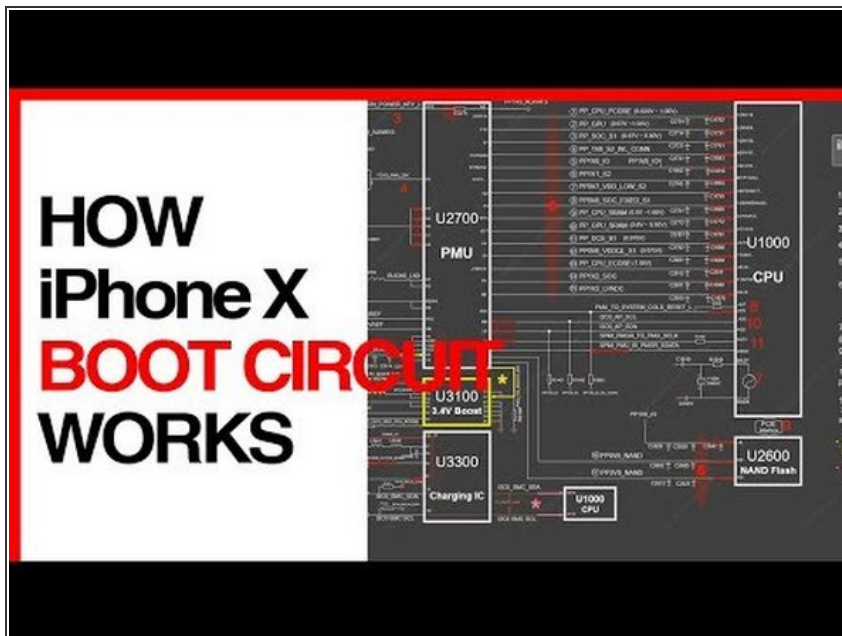
- U2700, PMU
- PMU here means power management unit. It works just like our heart to keep providing power energy to other components. It provides power supply for working of the boot circuit.

Step 3



- U2600, NAND. It stores data needed for the boot process.
- U3300, Charging IC. It converts battery power supply into main power supply.
- J3200, battery connector. It makes possible the connection between the battery and the motherboard.
- U3100, boost IC. It converts voltage when necessary.

Step 4 — Video Reference



- For a detailed explanation of the boot circuit, you can check out the video here.

- [How to Fix iPhone 7 No Service](#)
- [How to Fix iPhone 7 Hey Siri Not Working](#)
- [iPhone 7 Plus Touch ID Not Working – Broken Home Button Cable Repair](#)
- [How to Fix iPhone 7 Rear Camera Keeps Shaking](#)
- [How to Fix iPhone 7 Plus Half Backlight](#)
- [How to Fix iPhone 7 Plus Won't Turn On After Water Damage](#)
- [iPhone 6 Won't Turn On - Water Damage Repair](#)
- [How to Fix Samsung S7 edge Won't Turn on - Logic Board Solution](#)
- [How to Fix iPhone 7 Rear Camera Keeps Shaking](#)
- [How to Fix iPhone 7 Plus Half Backlight](#)
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