Why does my 3D printer say heating failed bed?

Asked 3D Content Team
Published October 20, 2026 · Last verified October 20, 2026

Abstract. Marlin halts if the bed gains less than 2 °C in 60 s after a heat command. Check the bed's power terminals and solder joints first, then the board output and supply.

Keywords: error-codes, firmware

Table 1. The number

Firmware or printer	Heater	Must rise at least	Within	What the screen shows
Marlin 2.1.2.5 defaults	Bed	2 °C	60 s	`Heating Failed: Bed`, then `PRINTER HALTED` and `Please Reset`
Marlin 2.1.2.5 defaults	Hotend	2 °C	40 s	`Heating Failed` with the hotend's name
Prusa MINI	Bed	2 °C	240 s	Preheat error bed, #12201

1 Why does my 3D printer say heating failed bed?

The bed did not warm fast enough after a heat command, so the firmware cut power and halted the printer. Stock Marlin 2.1.2.5 expects at least 2 °C of rise every 60 s while the bed heats. Check the bed's power wiring first: a loose or burnt terminal, or a cracked solder joint at the bed.

1.1 The number

The Marlin values are the `Configuration_adv.h` defaults for `WATCH_BED_TEMP_INCREASE` and `WATCH_BED_TEMP_PERIOD` (`WATCH_TEMP_INCREASE` and `WATCH_TEMP_PERIOD` for the hotend) at release 2.1.2.5, and the messages come from its English language file. The MINI figures are from Prusa's Knowledge Base. Printer makers can change any of them in their own firmware.

1.2 Why does the bed have to warm 2 °C every 60 seconds?

It is a safety check against damage and fire. Whenever `M140`, `M190` or `M303` raises the bed target, Marlin starts a watch. Every 60 s the bed must have gained 2 °C, until it is close to the target. If it falls short, Marlin switches off every heater and halts.

Two degrees a minute is a low bar, so a bed that misses it is barely warming. On a bed-slinger the bed itself moves, and its power wires flex with every move. The joints where they are soldered to the bed's pads can crack.

1.3 Why does the bed fail when the hotend heats fine?

The bed has its own power path: the screw terminal at the mainboard, the cable and its solder joints at the bed, and the board's bed output. That output is a MOSFET (the transistor that switches the bed), or an external MOSFET module on some printers. A weak supply, or one below the bed's rated

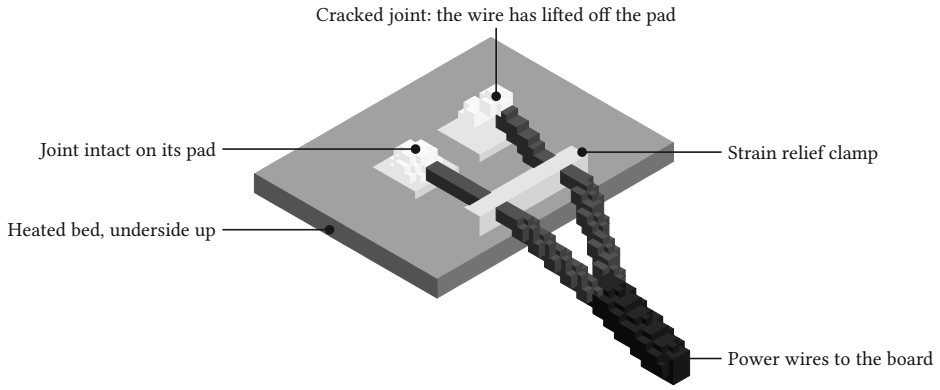


Figure 1. On a bed that moves, the power wires flex with every move, and a cracked solder joint at the bed's pads can stop the heater warming the bed.

voltage, starves it. So can a cold room or a draft, as in a cold garage, and a target above what the bed can reach (check its maximum temperature).

If the bed reached its target and then dropped mid-print, that is thermal runaway, a separate check. The hotend version of this error has its own page.

1.4 What does printer halted, please reset mean?

Marlin has stopped and needs what its configuration notes call "a hard reset": press reset or power-cycle the printer. Over USB, a host program logs `Error:Heating failed, system stopped! Heater_ID: bed`, then `Error:Printer halted. kill() called!`. A reset clears the screen, not the fault, so the error comes back on the next heat-up.

1.5 How do I fix heating failed bed on an Anycubic printer?

Anycubic documents this exact screen for the Kobra 2 Neo, and its first fix is the bed power terminal. Power off, unplug and remove the bottom cover (four screws, M2.5 Allen key). Loosen the screw holding the bed heater wire in its mainboard terminal, reseat the wire and retighten. Tug it to check it holds.

If the error returns, Anycubic sets the bed to 50 °C and measures the mainboard's bed port on the 200 V DC range: it should read 24 ± 2 V. If it does not, measure the supply input. A good input points to the mainboard, a low one to the power supply. Anycubic says this test needs some electrical knowledge.

The Kobra Plus shows `Hotbed heater abnormal, please check it and wiring!` instead. Anycubic's fix is the same: reconnect the heating cable at both ends, and replace the bed if the cable is damaged.

1.6 How to check it on your own printer

Power off and unplug first, then work down the list.

- **Look at both ends of the bed cable.** Brown or melted plastic at a terminal means replace, not reseat.
- **Flex the cable gently** at the strain relief and watch the wires at the bed's pads. Prusa's MINI guide says a detached wire means replacing the part, not soldering it back.
- **Tighten the screw terminals** at the board and tug each wire.
- **Measure the bed heater cold and unplugged.** An open reading means a break. Prusa gives 4.5 to 6.5 Ω for the MINI's bed and flexes the cable while measuring to catch an intermittent fault.
- **Check the bed thermistor.** Prusa checks that it sits under its Kapton tape. One that has come away reads cooler air.
- **Measure the bed output while heating**, with the power back on. No voltage with a good supply points to the board's output.

1.7 How do I clear the heated bed heating error in Marlin?

Fix the cause, then power on and heat only the bed while you watch the reading climb. Firmware with `PIDTEMPBED` enabled runs the bed on PID (proportional-integral-derivative) control. Retune it after replacing the bed, supply or board: send `M303 E-1 C8 S60 U1` with your usual bed temperature in place of 60, then `M500` to save it to EEPROM (the board's settings memory) if your build has it.

A reply of `PID Autotune failed! Bad heater id` means your bed uses bang-bang control (the heater switches fully on or off), the default in Marlin's example configuration. There is nothing to tune.

Don't lengthen `WATCH_BED_TEMP_PERIOD`, lower `WATCH_BED_TEMP_INCREASE` or disable `THERMAL_PROTECTION_BED` to silence the message. This check is what cuts power when the bed stops warming.

1.8 Can I just reseat a burnt bed connector?

No: discolored or melted plastic means that joint has been running hot. Replace the connector and any blackened wire end, and inspect the board socket it plugged into. A damaged bed cable is a fire risk: the U.S. Consumer Product Safety Commission's recall of Bambu Lab A1 printers warns that a bent or damaged heatbed cable "can short-circuit and spark or burn through" its insulation. Until the part is replaced, don't run the printer.

References

[1] Configuration_adv.h, thermal protection for the bed, Marlin 2.1.2.5, MarlinFirmware on GitHub. https://github.com/MarlinFirmware/Marlin/blob/2.1.2.5/Marlin/Configuration_adv.h. Accessed October 20, 2026.

[2] Configuration.h, PIDTEMPBED and bed limits, Marlin 2.1.2.5, MarlinFirmware on GitHub. https://github.com/MarlinFirmware/Marlin/blob/2.1.2.5/Marlin/Configuration.h. Accessed October 20, 2026.

[3] temperature.cpp, bed heating watch, Marlin 2.1.2.5, MarlinFirmware on GitHub. https://github.com/MarlinFirmware/Marlin/blob/2.1.2.5/Marlin/src/module/temperature.cpp. Accessed October 20, 2026.

[4] language_en.h, LCD messages, Marlin 2.1.2.5, MarlinFirmware on GitHub. https://github.com/MarlinFirmware/Marlin/blob/2.1.2.5/Marlin/src/lcd/language/language_en.h. Accessed October 20, 2026.

[5] language.h, serial messages, Marlin 2.1.2.5, MarlinFirmware on GitHub. https://github.com/MarlinFirmware/Marlin/blob/2.1.2.5/Marlin/src/core/language.h. Accessed October 20, 2026.

[6] M303.cpp, PID autotune, Marlin 2.1.2.5, MarlinFirmware on GitHub. https://github.com/MarlinFirmware/Marlin/blob/2.1.2.5/Marlin/src/gcode/temp/M303.cpp. Accessed October 20, 2026.

[7] M303: PID autotune, Marlin Firmware documentation. https://marlinfw.org/docs/gcode/M303.html. Accessed October 20, 2026.

[8] Anycubic Kobra 2 Neo: Prompt "Heating Failed: Bed PRINTER HALTED Please Reset", Anycubic Wiki. https://wiki.anycubic.com/en/fdm-3d-printer/kobra-2-neo/heating-failed-Bed. Accessed October 20, 2026.

[9] Kobra Plus: Hotbed heater abnormality prompt, Anycubic Wiki. https://wiki.anycubic.com/en/fdm-3d-printer/kobra-plus/kobra-

plus-hotbed-heater-abnormality-prompt. Accessed October 20, 2026.
[10] Preheat error bed #12201 (MINI), Prusa Knowledge Base. https://help.prusa3d.com/article/preheat-error-bed-12201-mini_112444. Accessed October 20, 2026.
[11] Preheat error (Heatbed), Prusa Knowledge Base. https://help.prusa3d.com/en/article/preheat-error-heatbed_2161. Accessed October 20, 2026.
[12] Bambu Lab Recalls A1 3D Printers Due to Electric Shock and Fire Hazards, U.S. Consumer Product Safety Commission. https://www.cpsc.gov/Recalls/2024/Bambu-Lab-Recalls-A1-3D-Printers-Due-to-Electric-Shock-and-Fire-Hazards. Accessed October 20, 2026.

Cite as: Asked 3D. "Why does my 3D printer say heating failed bed?." October 20, 2026. https://asked3d.com/answers/heating-failed-bed. Last verified October 20, 2026.