



# Battery Safety Mode

## Summary

HP's primary concern is for the safety of our customers. Batteries affected by this recall have the potential to overheat, posing a fire and burn hazard to customers. HP strongly encourages customers to cease use of affected batteries immediately. Many of these batteries are internal to the system, which means they are not customer replaceable. You should not remove them on your own. HP has developed a BIOS update for customers whose battery is affected by this recall program that will put the battery into "Battery Safety Mode". By enabling Battery Safety Mode, the computer notebook can continue to be safely used by connecting to an HP power adaptor. HP will provide replacement battery services for each verified, affected battery, at no cost to you.

## Entering Battery Safety Mode

To enter Battery Safety Mode, first update the system BIOS to the version shown in the table below or later. The latest BIOS can be found at the [HP Software and Driver Download Page](https://support.hp.com/us-en/drivers) <https://support.hp.com/us-en/drivers>

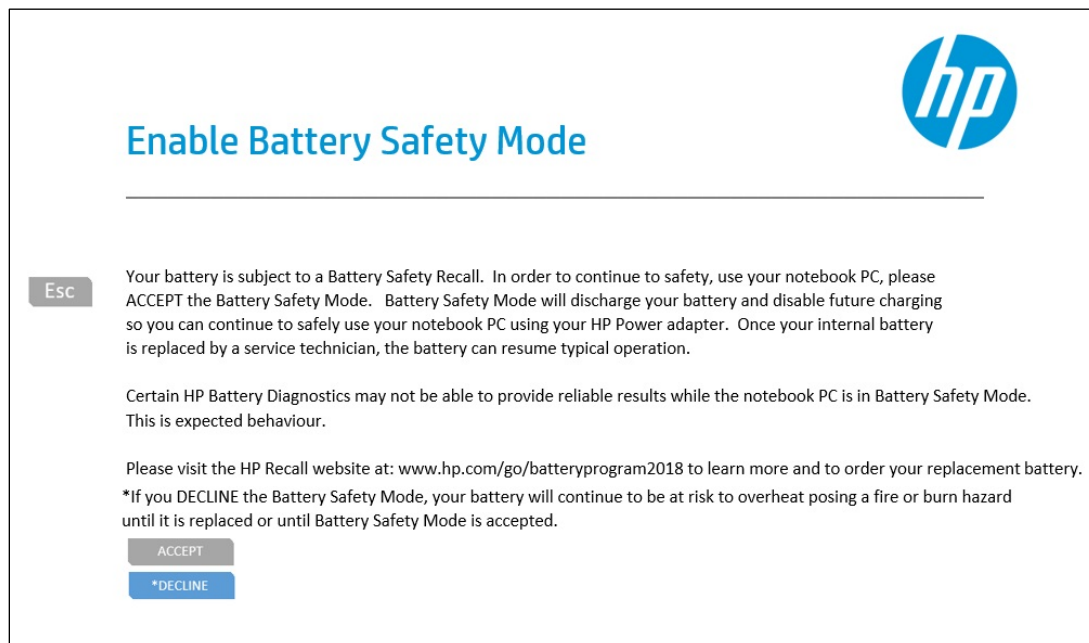
Platform	BIOS Version
HP ProBook 640/650 G2 Notebook PC	1.15 or later
HP ProBook 645/655 G2 Notebook PC	1.12 or later
HP ZBook 17 G3 Mobile Workstation	1.21 or later
HP ZBook Studio G3 Mobile Workstation	1.23 or later
HP ProBook 640/650 G3 Notebook PC	1.12 or later
HP ProBook 645/655 G3 Notebook PC	1.12 or later
HP ZBook 17 G4 Mobile Workstation	1.13 or later
HP ZBook Studio G4 Mobile Workstation	1.13 or later
HP X360 310 G2 PC	F.54 or later
HP Pavilion X360 Notebook PC	F.54 or later
HP Notebook 11	F.21 or later
HP ENVY m6 Notebook	F.18 or later

**NOTE:** The preceding table identifies BIOS versions with the initial release of the Battery Safety Mode feature. After the initial release, all subsequent versions of the BIOS will contain the feature.



**All platforms EXCEPT HP Notebook 11 will follow the following steps**

Immediately after BIOS has been updated, and the system battery is part of the battery recall program the following message will be displayed when the system reboots. If the battery is not part of the battery recall program, the message below will not be displayed and the system can continue operating normally.



Using the Arrow Keys, highlight the “accept” button in blue and hit the Enter Key. After Battery Safety Mode is accepted the screen will turn black and the power button LED will blink for up to 30 seconds. This is expected behavior, and the unit should not be powered off during this time. The system will reboot and remain in Battery Safety Mode until a new, unaffected battery has been installed in the system.

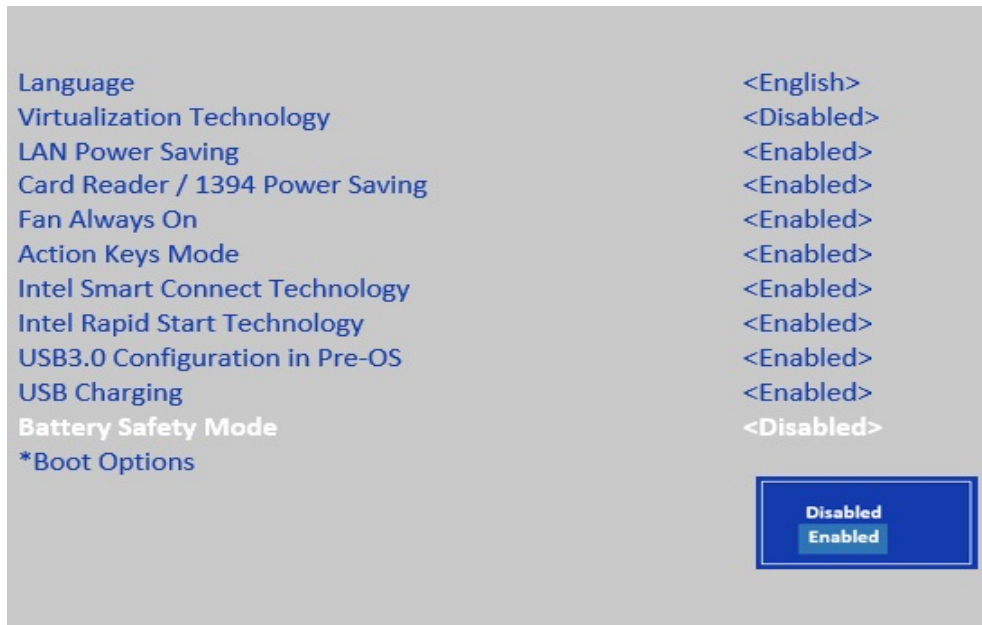
If Battery Safety Mode is declined, the message above will be displayed every time the system boots until Battery Safety Mode is accepted.

**HP Notebook 11 will use the following steps**

After the system BIOS has been updated, and the system has booted, an HP Service Advisory Message will alert the user that the battery is part of the recall and inform the user to visit [www.hp.com/go/batteryprogram2018](http://www.hp.com/go/batteryprogram2018). If HPSA has not been turned on, the website [www.hp.com/go/batteryprogram2018](http://www.hp.com/go/batteryprogram2018) can also determine if the battery is part of the recall. The unit will need to be completely powered off. When powering the unit back on press the F10 Key during BIOS POST to enter BIOS Set Up.

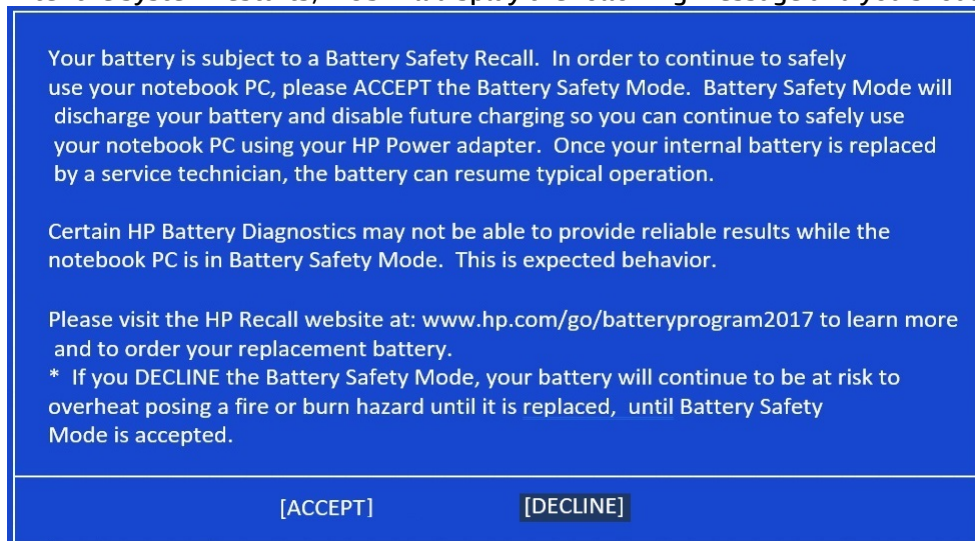


Once in BIOS Set Up, select the “System Configuration” tab using the Right Arrow Key. Select “Battery Safety Mode” by using the Down Arrow Key and change the setting to “Enabled” by using the F5/F6 key.



Go to the “Exit” tab by using the Right Arrow Key and choose “Exit Saving Changes”, press the Enter Key, and select “Yes” in the dialog box.

After the system restarts, BIOS will display the following message and you should select “Accept”.



After the system restarts and boots into the Operating System, the system has been placed in Battery Safety Mode.



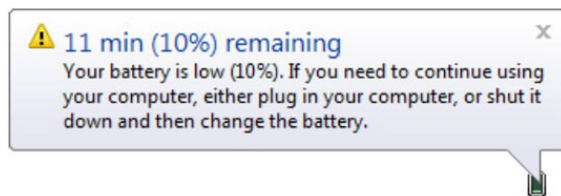
## Continuing to Operate the System Safely Once in Battery Safety Mode

When Battery Safety Mode is enabled, the system will not charge the battery under any circumstance.

When Battery Safety Mode is first entered the system will first enter Battery Discharge Mode. In Battery Discharge Mode the battery will be forcibly discharged by blocking AC power into the system. The notebook PC will still be able to be used in Battery Discharge Mode while the battery is discharging and AC power is blocked.

**Once the battery capacity is between 6% and 10%, the system must be rebooted.** After rebooting to exit Battery Discharge Mode, the system will allow the AC adapter to power the system but not charge the battery. The system will not be functional without the HP Power Adapter until the battery is replaced.

**NOTE:** Once battery capacity reaches 10%, the following pop-up message will appear.



**You should reboot the system at this time.** Not doing so leaves the Battery Discharge Mode enabled (i.e., the battery will continue to discharge and AC power will be blocked). This will result in unexpected behavior with undesirable side effects as follows:

- If battery capacity falls below 5%, the system will automatically enter HIBERNATE mode. Once the system automatically enters HIBERNATE mode, rebooting the system may take up to 15 minutes.
- If the battery is totally discharged (i.e., 5% or less), the Battery Validation Utility cannot read the battery commodity tracking number (CT#). If this occurs, the message “No battery detected” will be displayed and the replacement battery cannot be ordered online. You will be required to contact an HP representative to request a new battery. Refer to “Contact Us” on the HP Battery Recall website for region-specific contact information.

## Ordering a new Battery

Once the system is in Battery Safety Mode, download the HP Battery Validation utility from [www.hp.com/go/batteryprogram2018](http://www.hp.com/go/batteryprogram2018). Running the HP Battery Validation Utility will enable the ordering of a replacement battery and allow for various service options.

**NOTE:** The replacement battery should be ordered as soon as possible after Battery Safety Mode is enabled to ensure the Battery Validation Utility can access the battery and read the CT#. If the battery is totally discharged (i.e., 5% or less), the Battery Validation Utility cannot read the battery commodity tracking number (CT#). If this occurs, the message “No battery detected” will be displayed and the replacement battery cannot be ordered online. You will be required to contact an HP representative to



request a new battery. Refer to “Contact Us” on the HP Battery Recall website for region-specific contact information.

## Exiting Battery Safety Mode

*All Platforms EXCEPT HP Notebook 11 will follow the following steps*

After the replacement battery has been installed, the system will verify that the new battery is not part of the recall, allowing the system to return to normal battery mode.

If the new battery is also affected by the recall, the notebook PC will again inform the user about the battery recall and ask the user to accept to enter Battery Safety Mode.

*HP Notebook 11 will use the following steps*

After the replacement battery has been installed, power up the system and press F10 during BIOS POST to enter BIOS set up.

Select “System Configuration” tab by using the Right Arrow Key. Look for the item “Battery Safety Mode” and change the setting to “Disabled” by using the F5/F6 key.

Go to the “Exit” tab by using the right arrow key and choose “Exit Saving Changes”. Press the Enter Key and select “Yes” in the dialog box.

After the system restarts and boots into Windows, the battery has exited Battery Safety Mode and is back to normal usage.

## Frequently Asked Questions

### **Can Battery Safety Mode be enabled on non-Windows OS?**

Battery Safety Mode is enabled through the system BIOS and therefore can operate on any OS.

### **Can Battery Safety Mode be enabled if the BIOS file is password-protected?**

A password is not needed to accept or decline to enter Battery Safety Mode. Battery Safety Mode can be enabled even if the BIOS file is password-protected.

### **Does the battery drain at a different speed when in Battery Safety Mode compared to normal mode?**

The battery will drain at the same speed when it is in Battery Safety Mode and normal mode.

### **What should I do if the black screen and blinking lasts longer than 30 seconds after accepting Battery Safety Mode?**

If 30 second is exceeded, then user should hold the power button for 20 seconds then release power button for FULL shutdown and power-up. After the full shutdown and power-up the system will be in Battery Safety Mode.



### **What if I turn my unit off immediately after accepting Battery Safety Mode?**

When the system powers-up the next time it will be in Battery Safety Mode.

### **Is the system impacted in any other ways when in Battery Safety Mode?**

The main impact to the system will be that the battery will not be able to be charged and an HP Power Adapter will need to be plugged into the system.

- Certain HP Battery Diagnostic tools may not be able to access the battery after Battery Safety Mode is enabled. This is expected behavior.
- UEFI Diags prior to version 6.6.0.0 will not be able to recognize that a battery was put in Battery Safety Mode and could provide inconclusive results. Version 6.6.0.1 and later will recognize Battery Safety Mode.

Otherwise the system will function normally.

### **How can managed IT see the status of the units in their install Base?**

Status can be monitored using the Get/Set command in the BIOS Configuration Utility (BCU). The output will be one of the following:

- Normal – battery not impacted by the recall
- Battery Safety Mode Enabled
- Battery Safety Mode Disabled

### **How can I determine if Battery Safety Mode is enabled?**

For HP Notebook 11, HP ENVY m6 Notebook, HP X360 310 G2 PC and HP Pavilion X360 Notebook PC, the status of Battery Safety Mode can be checked in the BIOS set up menu described above for the HP Notebook 11.

For the ProBook and ZBook products, the status of Battery Safety Mode can only be check via BIOS Configuration Utility (BCU).

### **Once I update the BIOS with Battery Safety Mode, can I roll back to an older version of the BIOS that does not include this feature?**

Rollback of the BIOS is allowed, but not recommended for Commercial platforms. Rollback is NOT allowed for consumer platforms.

### **What if I have issues updating the BIOS that contains Battery Safety Mode?**

HP Customer Support should be contacted in the event of any issues when updating the BIOS.



### **When is internet connection needed during the Battery Safety Mode Process?**

Internet access is necessary on all platforms during the downloading of BIOS. After download, all products except for the HP 11 can validate the battery, run the BIOS, and implement Battery Safety Mode without Internet access. NOTE: Internet access is required to place an order for a replacement battery.

**For the HP Notebook 11 only**, Internet access will be required to

- Download the updated BIOS
- Run the Battery Validation Utility to determine if the battery is affected
- Place an order for a replacement battery

Once the BIOS has been downloaded, Internet access will not be required to update the BIOS and enable Battery Safety Mode.

### **How can managed IT see the status of the units in their install Base?**

Status can be monitored using the Get/Set command in the BIOS Configuration Utility (BCU). The output will be one of the following:

- Normal – battery not impacted by the recall
- Battery Safety Mode Enabled – battery impacted by the recall, battery charging is disabled. The system can only run on AC Power until the battery is replaced.
- Battery Safety Mode Disabled – battery impacted by the recall, battery will continue to charge. Battery Safety Mode should be enabled to continue safe usage of the notebook or mobile workstation.

### **After enabling Battery Safety Mode, my system shutdown although it was plugged into the AC power supply. Now, the system will not boot. What should I do?**

If battery capacity falls below 5%, the system will automatically enter HIBERNATE mode. Once the system automatically enters HIBERNATE mode, rebooting the system will take up to 15 minutes.

### **I enabled Battery Safety Mode but did not immediately order the replacement battery. When I attempted to order the battery at a later time, I got the following message: “No battery detected”. How do I order my replacement battery?**

If the battery is totally discharged (i.e., 5% or less), the Battery Validation Utility cannot read the battery commodity tracking number (CT#). If this occurs, the message “No battery detected” will be displayed and the replacement battery cannot be ordered online. You will be required to contact an HP representative to request a new battery. Refer to “Contact Us” on the HP Battery Recall website for region-specific contact information.



### My system did not exit Battery Safety Mode after replacing my battery. What should I do?

This is a known issue with certain BIOS versions for some of systems.

- Systems affected by this issue include **HP ProBooks (64x G2 and G3 series, 65x G2 and G3 series) and HP ZBooks (17 G3, 17 G4, and Studio G3)**.
  - If your system has not been updated to the latest BIOS, update the BIOS to the latest version.
  - If the problem persists after you update, or if you are unable to update the BIOS to the latest version, downgrade the BIOS to a version identified in the following table to exit Battery Safety Mode:

Product	BIOS Version
HP ProBook 640/650 G2 Notebook PC	1.13 or older
HP ProBook 645/655 G2 Notebook PC	1.10 or older
HP ProBook 640/650 G3 Notebook PC	1.08 or older
HP ProBook 645/655 G3 Notebook PC	1.07 or older
HP ZBook 17 G3 Mobile Workstation	1.17 or older
HP ZBook 17 G4 Mobile Workstation	1,03 or older
HP ZBook Studio G3 Mobile Workstation	1.19 or older
HP ZBook Studio G4 Mobile Workstation	1,04 or older

- Once the system has exited Battery Safety Mode, update a 2<sup>nd</sup> time to the newer version of the BIOS.
- The following systems are not affected by this issue: **HP X360 310 G2, HP Pavilion X360, HP Envy m6, HP 11**