



# HP Notebook PC

## Metal Surfaces and 3-Prong Grounded AC Adapters

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## Introduction

This document provides general information about metal surfaces on specific 2008 models of HP Business Notebook PC products and their interaction with HP Notebook PC 3-prong grounded AC adapters and with third-party 2-prong or otherwise ungrounded AC adapters.

## Metal surfaces

For appearance and durability, some HP Business Notebook PC products announced in calendar year 2008, listed below, utilize an aluminum alloy material on some exterior surfaces:

- HP EliteBook Series Notebook PC
- HP 2133 Mini-Note PC
- HP 2533t Mobile Thin Client
- HP Docking Station and Advanced Docking Station

On the notebook PC models listed above, this aluminum alloy material is used on the display enclosure that surrounds the display panel and on the area surrounding the keyboard. On the docking stations listed above, this aluminum alloy material is used on the top and sides.

## HP Notebook PC AC adapters

HP Omnibook brand notebook PC models were announced prior to 2002 and shipped with a 3-prong grounded AC adapter beginning in 2002. HP Compaq, HP Pavilion, Compaq Evo, and Compaq Presario brand notebook PC models have shipped with a 3-prong grounded AC adapter since 1995. HP plans to continue using 3-prong grounded AC adapters for all notebook PC models.

The benefits of using 3-prong grounded AC adapters include safety, reliability, and regulatory compliance. HP Notebook PC AC adapters comply with electromagnetic compatibility (EMC) standards that include but are not limited to the U.S. Federal Communications Commission (FCC) specifications and international EN 55022 EMC specifications. Through the use of a 3-prong grounded plug, HP Notebook PC AC adapters help reduce the potential for electric current leakage, lower the risk of electric shock, and provide increased user protection from electrostatic discharge (ESD).

## Third-party ungrounded AC adapters

Under certain circumstances, the use of a third-party 2-prong or otherwise ungrounded AC adapter with a 2008 HP Business Notebook PC product listed above can cause a user to feel a slight tingling sensation when touching the aluminum alloy surfaces. This is not typically a safety concern, and in most cases, it is not harmful to the user or to the product.

HP Notebook PC products and HP Notebook PC AC adapters meet or exceed current applicable safety and regulatory requirements. Therefore, the tingling sensation should not be felt when a listed product is used with a supported HP 3-prong grounded AC adapter. Possible exceptions could be when the notebook PC and a supported HP 3-prong grounded AC adapter are used with an AC outlet which itself has a poor ground or when the 3-prong grounded AC adapter is used where only 2-prong (ungrounded) AC adapters are supported.

The slight tingling sensation discussed herein has been present in the electronics industry for numerous years and is common on notebook PC products and other electrical devices and appliances that utilize metal surfaces and 2-prong ungrounded AC adapters. HP Notebook PC models include a 3-prong grounded AC adapter to help minimize the presence of slight tingling sensations as well as for compliance, safety, and reliability reasons that are mentioned herein. In addition, HP has made efforts to further reduce electric current leakage on typical notebook PC touch points such as the palm-rest area.

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#### **Warning**

To ensure continued compliance with regulatory requirements, HP recommends that only HP-branded AC adapters, batteries, and other accessories be used with HP Notebook PC products. To reduce the risk of serious injury, read the *Safety & Comfort Guide* included with HP products and available at <http://www.hp.com/ergo>.

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