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Apple Will Fix iPhone Glitch

Signal Strength Display 'Totally Wrong'; Software Remedy Planned for All Models

By YUKARI IWATANI KANE and ROGER CHENG

Apple Inc. said all of its iPhones, including its new iPhone 4, mistakenly inflate readings of their cellular signal strength, an uncharacteristic stumble for the consumer electronics giant.

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iPhones mistakenly show better cellular reception than exists, the company said.

"Upon investigation, we were stunned to find that the formula we use to calculate how many bars of signal strength to display is totally wrong," the company wrote. Apple said the problem has been present since the original iPhone.

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The Cupertino, Calif., company said Friday in an open letter to iPhone 4 owners posted on its website that it had been using an incorrect method to determine the number of bars of cellular signal strength it displays on its devices. In several instances,

The investigation into the issue was touched off by user dissatisfaction over the iPhone 4's antenna. Adding that "gripping almost any mobile phone in certain ways will reduce its reception by 1 or more bars," Apple said iPhone 4 users appeared to be seeing a bigger drop than normal in antenna reception when they held their phones in a certain way because they were in low-reception areas to begin with. Apple said it would make a software update available to fix the bar display problem for the iPhone 4, iPhone 3GS and iPhone 3G within a few weeks.

The admission is the latest glitch to befall the iPhone 4, the newest version of Apple's blockbuster iPhone that went on sale late last month. In addition to antenna reception issues, people have reported some discoloring on their iPhone 4 displays, which designers say is a temporary problem that comes from glue that isn't yet completely dry.

Apple also said last week that it was having problems making the white casing for a version of the iPhone 4. Its U.S. carrier AT&T Inc. stopped taking orders for the device temporarily after it experienced problems processing the higher-than-expected demand. And even before Apple unveiled the latest iPhone, details of it were published by Gawker Media LLC's tech blog Gizmodo, which had obtained a prototype that had been left behind in a bar.


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Apple said Friday that a software fix for the iPhone will correct an error in the way the devices display signal strength.

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Apple addresses a letter to iPhone 4 users following recent complaints about a weak service signal - and says it's due to a software problem, not the antenna design. But how "simple and surprising" is this explanation? Dan Gallagher and Julia Angwin join the Digits show to discuss. Plus: Google looks to expand its empire to the online travel industry.



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Cool ! I just wrote my own software update that "fixes" the WSJ graphic display of the woefully sinking Dow Jones average. Happy Days are here again!

—James Finch

"If you start making new design from scratch, that's where you run into problems," said Marlin Mickle, a professor of electrical engineering who specializes in antennas at the University of Pittsburgh.

In a recent advertisement for the rival Droid X, which launches on July 15, manufacturer Motorola Inc. and carrier Verizon Wireless pointed out that it has a double antenna design "that allows you to hold the phone any way you like it."

Spencer Webb, president of AntennaSys, which designs antennas, said it will likely take a while longer to know whether there's a bigger iPhone 4 antenna problem beyond the bars on the display. "You can't figure that out without making calls and using it for a couple weeks," he said.

Apple issued the latest letter after its initial response to antenna issues—advising people to avoid covering the lower part of the device or get a case—failed to satisfy some consumers. At least three separate lawsuits were filed Wednesday alleging Apple knowingly sold a defective product.

The company reminded users Friday that they can return their iPhone 4 for a full refund within 30 days of purchase.

Apple and AT&T declined to comment.

Still, the problems don't appear to be hurting sales. The device has been a huge sales success, with more than 1.7 million units sold in its first three days on the market. That's significantly higher than the one million iPhone 3GS devices that were sold in the same period a year ago.

Apple's online store continues to show a three-week delay in shipping iPhone 4s as demand outstrips supply.

Overall, Apple has sold more than 50 million iPhones since it first introduced the smartphone three years ago.

But analysts say the issues could be a sign of the increasing pressure that Apple is under to stay ahead of its competition. "It points to how difficult it is to keep up the pace of innovation," said Edward Synder, managing director of Charter Equity Research.

He added that "this performance is hurting their reputation."

The iPhone 4, which starts at \$199, has a sleek edge-to-edge glass exterior and a stainless steel frame that functions as the antenna.

But what was supposed to be a cutting-edge antenna design has proven to be problematic as customers reported weak reception when the phone is held in a way that covers the bottom left corner.

Despite Apple's stance that reports of the faulty antenna reception are largely a perception problem and that all mobile devices lose some reception when gripped a certain way, antenna experts say that the iPhone 4 is more susceptible because its antennas aren't insulated from human touch as in other phone designs. A hand touching the metal antenna affects its effective area, they said.

—Niraj Sheth contributed to this article.

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