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GeoExplorer Series: Connecting to Computers with USB 2.0

Summary

This Support Note advises users of an issue when connecting a GeoExplorer® series handheld to a computer with USB 2.0 technology through the USB port.

Problem

Some new computer models with USB 2.0 have reduced protection from electrical surges compared to previous models. Connecting a GeoExplorer series handheld to a computer with USB 2.0 through the USB port may damage the computer USB ports or motherboard unless the precautions recommended below are taken.

To check whether or not a computer has USB 2.0 technology:

1. On the PC select *Start*/*Settings*/*Control Panel*.

2. Double-click System to open the *System* dialog.

3. Select the *Hardware* tab.

4. Click **Device Manager** to open the *Device Manager* dialog.

5. Click the + next to *Universal Serial Bus Controllers* to expand it. A USB 2.0 device has a USB 2.0 Host Controller.

Solution

To protect a computer with USB 2.0 from possible damage arising from electrical surges, Trimble recommends that GeoExplorer series users connect their GeoExplorer series handheld to a computer with USB 2.0 **through a USB hub.**

In addition to connecting through a USB hub, users should always ensure that the handheld is properly inserted into the support module.

Connecting through a USB hub

A USB hub should protect the computer from possible damage arising from electrical surges.

Although most USB hubs are expected to be effective, the specific USB hubs tested by Trimble are:

- IoGear MicroHub

- Inland 4-port hub

- Micro Innovation 4-port hub

- SIIG MobileHub

- Compaq 4-port hub

Inserting the handheld into the support module

Correctly inserting the GeoExplorer series handheld into the support module will also help to avoid damage when connecting to a USB 2.0 computer. The handheld should always be placed in the support module in a manner that avoids lateral movement of the handheld over the support module's connection pins:

1. Place the top of the GeoExplorer series handheld into the top of the support module, as shown in the illustration to the right.

2. Align the handheld parallel with the support module.

3. Dock the handheld with a firm vertical press so that the support module latch engages smoothly.

Note: Do not insert the GeoExplorer series handheld at an angle to the support module's connection pins, or apply excessive force in docking the handheld. These actions could result in damage to the connection pins and could cause an electrical surge that may damage a computer with USB 2.0.