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## **Theory of Operation/ Technical Description**

The hField Technologies Wi-Fire adapter is an 802.11 b/g WiFi (2.4 Ghz) USB network adapter coupled with a directional antenna. An USB 2.0 cable connects the USB circuit to a personal computer running a Windows or Macintosh operating system. When the USB cable is plugged into a personal computer, the computer communicates with the USB circuit, which encodes/decodes the signal into 802.11b/g wireless signals which his then transmitted to and received from a wireless network. The circuit is held in a plastic enclosure made of ABS material. The retractable USB cable connects to the USB circuit through an open port in this enclosure. This enclosure is then placed in a mount, which permits the user to fix the Wi-Fire to a laptop monitor or flat-screen monitor. The pivoting action of this mount also allows for placement on any flat surface.