



HSB2

## Hi-Gain Wi-Fi Signal Booster



# User's Manual

## ***LIMITED WARRANTY***

**Hawking Technology guarantees that every HSB2 WiFi Signal Booster is free from physical defects in material and workmanship under normal use for two (2) years from the date of purchase. If the product proves defective during this two-year warranty period, call Hawking Customer Service in order to obtain a Return Authorization number. Warranty is for repair or replacement only. Hawking Technology does not issue any refunds. BE SURE TO HAVE YOUR PROOF OF PURCHASE. RETURN REQUESTS CAN NOT BE PROCESSED WITHOUT PROOF OF PURCHASE. When returning a product, mark the Return Authorization number clearly on the outside of the package and include your original proof of purchase.**

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# **Warning Statement:**

**Federal Communication  
Commission Interference Statement  
Federal Communications  
Commission (FCC) Requirements,  
Part 15**

- 1. Reorient or relocate the receiving antenna.**
  - 2. Increase the separation between the equipment and receiver.**
  - 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
  - 4. Consult the dealer or an experienced radio/TV technician for help.**
- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:**

- (1) This device may not cause harmful interference.**
- (2) This device must accept any interference received, including interference that may cause undesired operation.**

## **FCC Caution:**

### **FCC RF Exposure Statement:**

**This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.**

## **Regulatory information/Disclaimers:**

**Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.**

Step

1

## Check the Requirements for Installation



### HSB2

#### Hi-Gain 802.11b/g Adjustable WiFi Signal Booster

This QIG Will Guide You Through  
the Signal Booster Setup.

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#### What You Will Need To Get Started:

- Wireless 802.11b or 802.11g network.
- Wireless device to attach to the HSB2  
(HWP54G - Wireless-G PCI Card)

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#### Check Your Signal Booster Package Contents:



Hi-Gain Adjustable  
Signal Booster



Wireless Antenna



Power Adapter

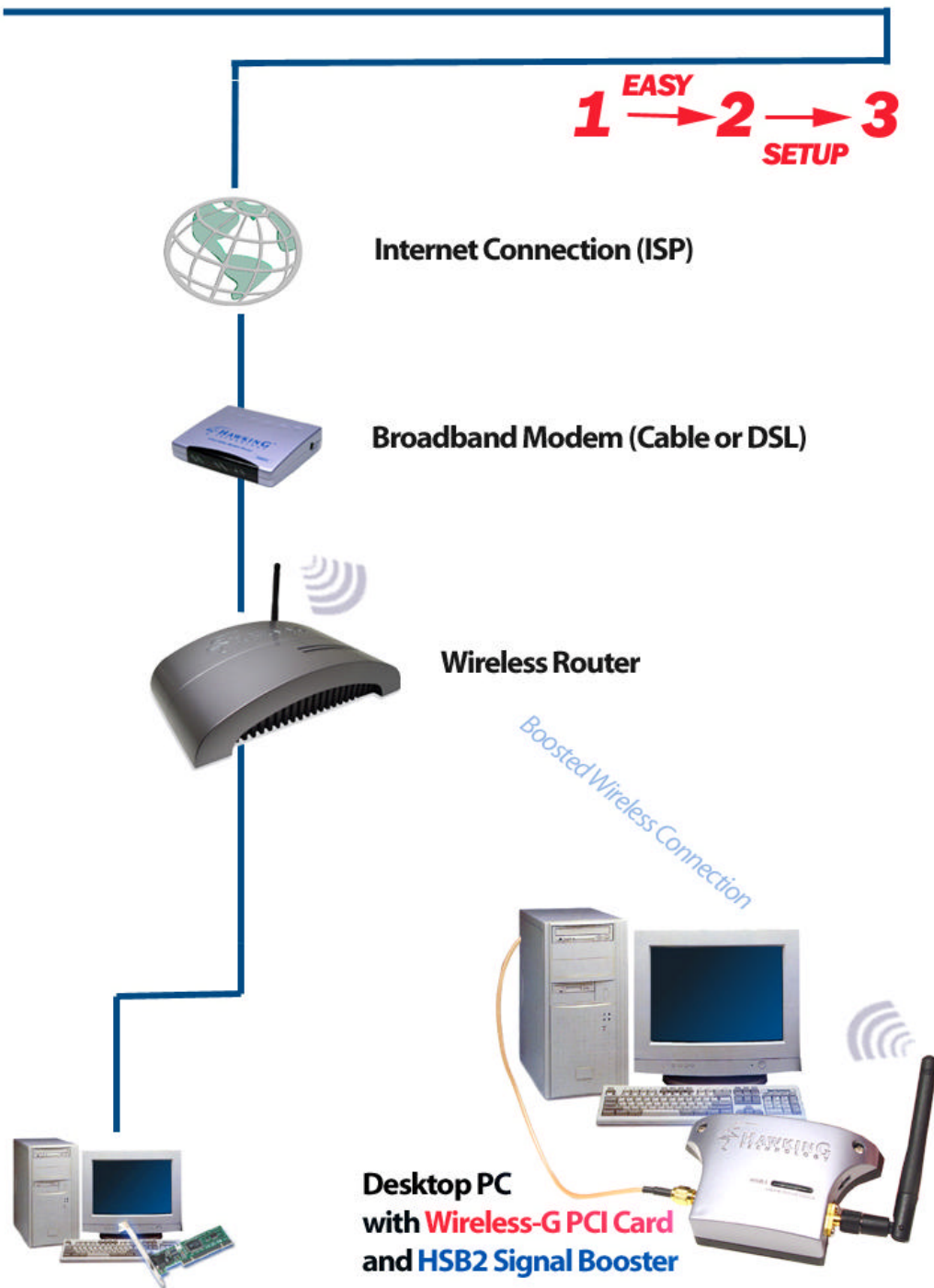


Booster Connector  
Cable  
(RP-SMA to RP-SMA)



Mounting Screws

# TYPICAL NETWORK DIAGRAM for the HSB2



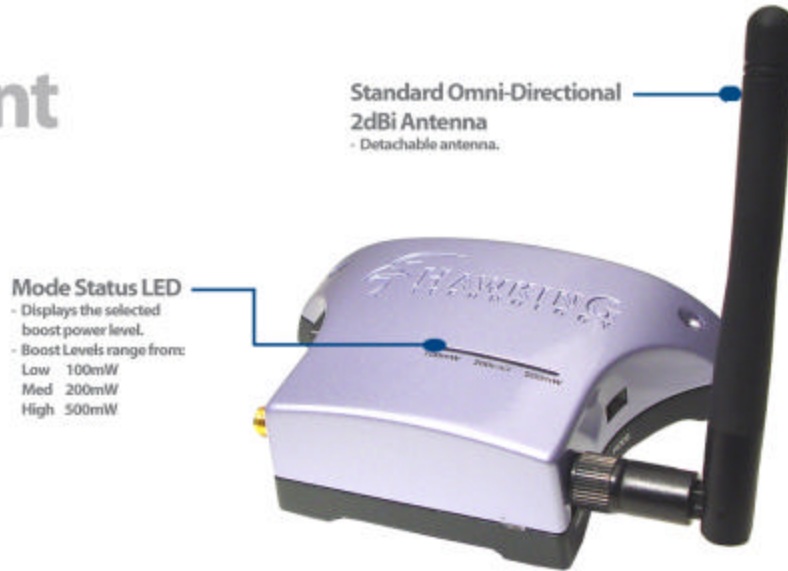
Each computer/laptop must have a network adapter to connect with the router.



**HSB1**

## Product Overview

### Front



**Standard Omni-Directional 2dBi Antenna**  
- Detachable antenna.

**Mode Status LED**  
- Displays the selected boost power level.  
- Boost Levels range from:  
Low 100mW  
Med 200mW  
High 500mW

### Left Side



**Power Adapter**  
- DC Plug input

**Input Connector**  
- Connects Wireless PCI Card to the Signal Booster.  
- Use the provided Connector Cable to connect the Signal Booster to the antenna port of the wireless PCI adapter.

### Right Side



**Antenna Connector**  
- Reverse Plug SMA Antenna Connector

**Mode Selection Switch**  
- Adjusts the boost power level of the signal booster.  
- Boost Levels range from:  
Low 100mW  
Med 200mW  
High 500mW

Step

2

## Connecting the Signal Booster

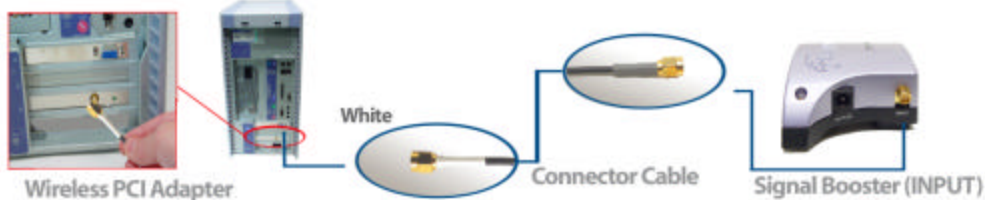
1

**Remove** the original antenna from the Wireless PCI Card that is installed in your Desktop PC. To remove the antenna, unscrew from the base of the antenna in a counter clockwise motion until the antenna is completely removed.



2

**Connect** the Signal Booster to the Wireless PCI Adapter using the included color coded Connector Cable. Connect the **grey** end to the **INPUT** connector on the left side of the Signal Booster. Connect the **white** end to the antenna connector on the antenna connector on the Wireless PCI Adapter.



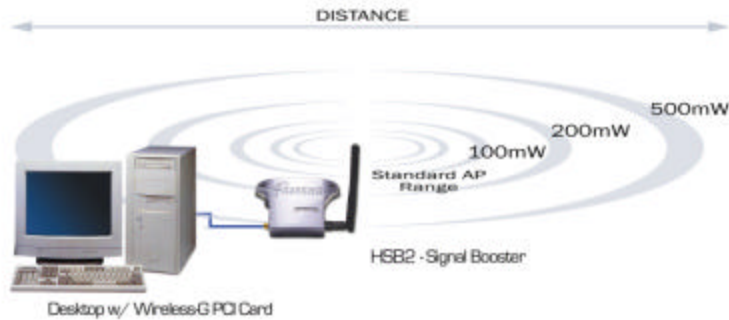
**After** you have connected the Signal Booster to the Wireless PCI Card, find the included Wireless Antenna from the package contents and connect it to the Antenna Connector on the right side of the Signal Booster. Screw the antenna base in clockwise until the antenna is firmly connected to the Booster.



**3 Power** on the Signal Booster by connecting the Power Adapter to the DC Plug port on the HSB2.



**4 Adjust** the Boost Level of the Signal Booster according to your application.



On the right side of the Signal Booster there is a switch that lets you select the Mode of your signal booster. The Modes range from:



**After** you have selected your Power Mode, place the Signal Booster in the highest location possible for the best signal. You may also choose to mount it on a wall using the included mounting screws.





HSB2

## Product Specifications

### Network/Operating Range:

IEEE 802.11b WLAN Standard  
IEEE 802.11g WLAN Standard  
2400 - 2500 MHz

**Frequency Response:** +/- 1 dB

**Output Power:** Max: 27dBm)

### Input Power:

8-18 dBm Max.

Receiver Gain: 10-13 dBm, 12 dBm Typical

Noise Figure: 3.5 dB typical

### Connectors:

Input: Reverse SMA Jack

Antenna: Reverse SMA Jack

Connector Cables: RP-SMA

**Power:** External Power Adapter

DC Surge Protection: Available

**Cable Length:** 75 cm

### SYSTEM REQUIREMENTS:

- 802.11b or 802.11g Wireless Network
- Certified 802.11b/g Wireless PCI Network Adapter with a Removable Antenna. (HWP54G)



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## Networking Terms

### Ethernet

A networking standard using cables (Category 5) to create a network.

**Network Adapter** - Also known as a NIC (Network Interface Card). Used to provide PC's or laptops with an Ethernet port or wireless access to the network.

**Broadband Modem** - A device that allows broadband connection to the internet. Broadband connections include speeds faster than 56k (dial up modem speed). The two most common types of Broadband connections are DSL and Cable. Cable modem relies on the bandwidth of cable television lines while DSL modems rely on the telephone lines operating at DSL speeds.

**Router** - A device used to share internet access from one user to multiple users. By taking one IP address (Addresses used by ISP's to assign broadband services to your computer) the Router distributes the services of your broadband access among multiple users and IP's.

### Wireless

**Wireless Device** – Any WiFi device (802.11b/g) that communicates wirelessly using the IEEE802.11 wireless standard. These devices can range from wireless access points to wireless routers to wireless PCI client cards.

**IEEE 802.11** – Wireless Network Specifications

- **802.11** -- applies to wireless LANs (Networks) and provides 1 or 2 Mbps transmission in the 2.4 GHz band using either frequency hopping spread spectrum (FHSS) or direct sequence spread spectrum (DSSS).
- **802.11b** (also referred to as *802.11 High Rate* or *Wi-Fi*) -- an extension to 802.11 that applies to wireless LANs and provides 11 Mbps transmission (with a fallback to 5.5, 2 and 1 Mbps) in the 2.4 GHz band. 802.11b uses only DSSS. 802.11b was a 1999 ratification to the original 802.11 standard, allowing wireless functionality comparable to Ethernet.
- **802.11g** -- applies to wireless LANs and provides 54 Mbps in the 2.4 GHz band. Backwards compatible with IEEE 802.11b products.

### Hi-Gain WiFi Antenna

High powered antenna to increase the distance of your WiFi device.

**SMA Connector** – The standard antenna connector for WiFi devices. This is the most popular connector and comes standard with all Hawking Technologies equipment.

**TNC Connector** – A type of antenna connector used by few wireless networking equipment manufacturers.

**dBi (decibel)** - A unit of measurement used to determine the gain level of wireless antennas.

**mW (MilliWatt)** - A unit of measurement used to determine the power level of wireless devices.



## Contact Information / Tech Support

**Thank you for purchasing the Hawking Technologies**

### **HSB2 - 802.11b/g Adjustable Signal Booster**

If you are having technical difficulties using the product, Hawking Technologies offers free technical support to assist you.

**Technical Support (For US and Canada):**

**Phone:** 800-756-7832

**Email:** [techsupport@hawkingtech.com](mailto:techsupport@hawkingtech.com)

**Website:** <http://www.hawkingtech.com/servicesupport.php>

**RMA Information (For Warranty Issues / Returns)**

**Website:** <http://www.hawkingtech.com/rma.php>



**Thank You for choosing Hawking Technologies.**