



MACINTOSH INSTALLATION INSTRUCTIONS FOR

MacWireless Antennas and Boosters

For 11n AirPort Extreme Base Station

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Introduction

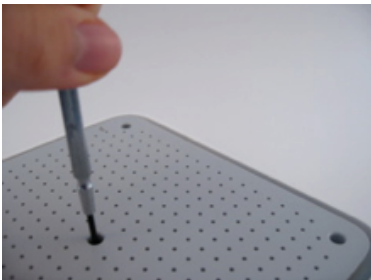
11n Extreme Base Stations have three internal antennas. You can replace one to reach out further in a specific direction, or replace all of them to completely customize the shape of your wireless signal. You can also add a booster to one or more antennas to increase your range.

Installation

Before installing your antenna(s) and or booster(s), we recommend that you test your current signal level using iStumbler. Compare this result to the signal level after installation to see how much your connection has improved. iStumbler is included on the MacWireless CD in the "Extra Software" folder, and is also available at: <http://www.istumbler.net/>



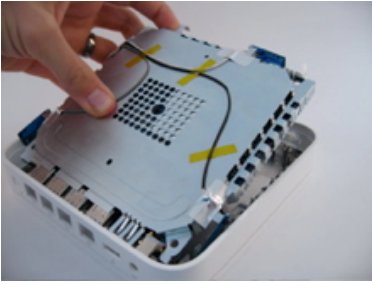
Peel off the rubber pad on the bottom of base station.



Remove the five Phillips screws underneath the pad.



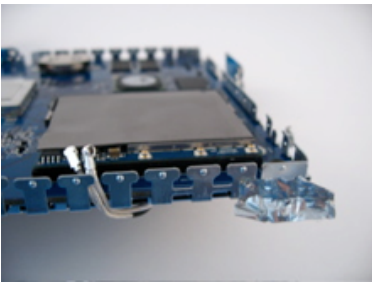
Lift plastic cover.



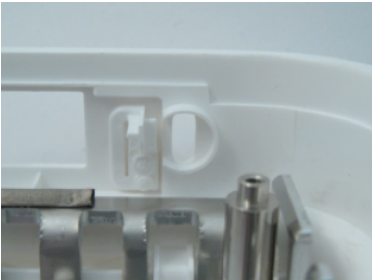
Lift the body of the unit out of the casing.
Lift the side opposite the ports first, then remove the entire body.



Locate the three antenna connectors on the logic board.



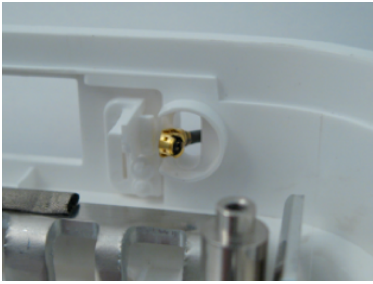
Peel back the metallic tape and remove one or more of the antenna connectors. If you are only installing one MacWireless antenna or booster, remove one connector, if you are installing more than one antenna or booster, remove more than one connector. You can store the unused connectors off to the side.



If you are installing only one antenna or booster, locate the security slot on the back of the frame.



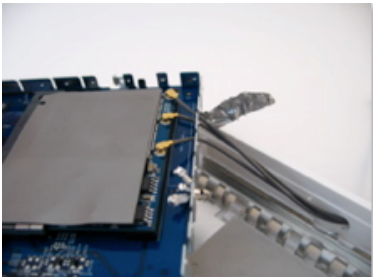
If you are installing more than one antenna or booster, then you will need to drill a hole in order to pass the MacWireless antenna cables through. Locate a metal strip around the edge of the case with two notches in it. Drill a hole in the casing between the notches, taking care not to drill into the metal. We recommend using a 1/4" drill bit.



If you are installing only one antenna or booster, pass the gray MacWireless antenna cable through the security slot.



If you are installing more than one antenna or booster, pass the gray MacWireless antenna cables through the hole in the case.



Attach the MacWireless antenna cable(s) to the logic board.



Replace the metallic tape.



Replace the body of the base station.



Replace the plastic cover, screws, and rubber pad.
Attach the desired antennas and/or boosters to the antenna cables.
Installation is complete.

Troubleshooting

I'm not seeing a significant increase in range. What can I do?

1. Verify the physical connections, and make sure that you power-cycle your wireless device after connecting or disconnecting range extending hardware.
2. Aim the antenna appropriately. For more information on how your antenna radiates energy, see the antenna help section of our website: <http://www.macwireless.com/html/help/antenna.html>
3. If you are connecting your antenna to an AirPort Extreme Base Station with External Antenna Port, use the AirPort Admin Utility to verify that your external connection is recognized. Inside the base station configuration area, go to the View menu and choose "Summary" or "Show Summary". You should see "Antenna: External". If you do not, double check the physical connections and power-cycle the base station. If you still do not see the external connection in your Admin Utility, check the hardware on a different base station, if you have one available.

Factors Affecting Range and Performance of All Wireless LAN Systems

For optimal performance, place wireless devices with a clear line of sight to one another. If this is not possible, minimize interference and signal loss by minimizing the number of obstacles between your wireless devices. Metal and concrete obstacles will often prevent a successful wireless connection. Other objects that may decrease signal strength include metal studs in walls, concrete fiberboard walls, aluminum siding, foil-backed insulation in the walls or under the siding, pipes, electrical wiring, trees, leaves, and furniture. In some situations, interference from other electrical devices may prevent a successful connection. Microwave ovens, cordless phones, radio transmitters, and other wireless devices are the most common sources of interference. In reflective and high interference environments, antennas and boosters may not produce the desired results. Wireless signals are radio waves, and in certain situations, these waves will cancel one another out, and may yield no improvement in signal strength. Our wireless cards, access points, antennas, and boosters work very well for the majority of our customers. However, due to the number of variables involved in wireless systems, we do not guarantee that you will achieve any improvement in range for your specific application.

Although MacWireless products have been tested and verified, MacWireless does not accept responsibility for loss or damage to any equipment or device. Use at your own risk.