Antennas left and right

Written by Rick Kirchhof, NG5V
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The firmware allows you to select left, right or both antennas. When describing the antenna location, the view is from the front panel. As you look at the front and see the LEDs, the left antenna is at the left rear corner and right antenna is at the right rear corner. This is "normal". Otherwise, the antennas are "reversed". We will update this info as it is submitted. If you have new data or see something that conflicts with this content, please contact the webmaster.

Hardware version	Normal or reversed
WRT54G v1	

Hardware version	Normal or reversed
WRT54G v1.1	normal
WRT54G v2	reversed
WRT54G v3	

WRT54G v4

Hardware version	Normal or reversed
WRT54GL v1+	normal

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You should almost always use diversity unless you know:

- That you will only have one functioning antenna attached
- You know which one to select in the setup screen.

An easy way to do a test is to select the left antenna and then do a site survey by looking for other networks. You can start a second browser or new tab for the second part. Next, switch to the right antenna and repeat the survey. You could even repeat with a third window or tab using the both configuration. This is a real world test of what each antenna choice can see. Diversity is very efficient. It is watching both antennas all the time. The selected signal with be used with the antenna that has the best path (highest S/N) for the desired target.
It is perfectly acceptable (and very common) to have two high gain antennas pointed in opposite directions and let the internal "both" selection sort it out. We do this all the time. It works well and is the simplest configuration. If you had a one directional/gain antenna and one omni, a user approaching from some off-axis direction would get a link on the omni once it comes into range. The target on-axis would get a link using the gain antenna port. The router will transparently select whichever one works best depending on who it is sending signals to. Actually there are very few situations where you would choose one antenna only. It is there because the firmware supports it and we gain nothing by taking it out.