SNMP & SYSLOG features

We occasionally get a support query from a customer who is experiencing problems with poor satellite reception. Usually the answer is straight forward - the antenna is being blocked. The ideal GPS antenna installation is on the roof of a building with a clear line of sight of the whole sky. For New Zealand locations, a clear view of the lower Northern region is especially critical. If the antenna is being blocked (shaded) by another object, you are likely to get poor reception.

Users of Tekron clocks may recognise the image in Figure 1- a snapshot of the GPS tab in the Configuration Tool. This particular picture shows a large area to the South with no satellites, which is typical of NZ reception. Reception at this site is good, there are seven satellites showing “green” - Tekron clocks require a minimum of 4. The picture also shows patchy satellite reception to the East, which could be caused by something blocking the antenna.

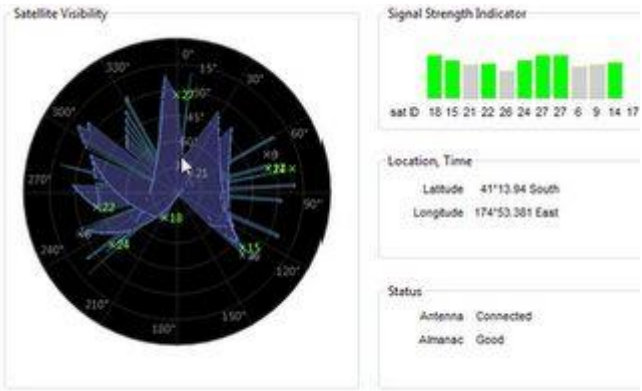

Figure 1. GPS configuration tool

The setup of Tekron clocks includes an antenna mask angle. This is the elevation above the horizon below which satellites will not be used in time and position calculations. A good starting value is 5°. This may need to be increased in valley locations where distant hills cause signal quality loss due to multi-pathing effects. Increasing the mask angle value does reduce the number of satellites in view, but can eliminate those causing loss of time quality.

If you do experience problems with poor satellite reception, go and have a look at your antenna. You never know - you may find that someone has installed a great big obstruction - right next to it!

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Figure 2. Tekron antenna mount bracket

While the Tekron antenna bracket that is supplied as part of the antenna kit is a handy means of mounting antennas on side of walls, this is not the preferred location, due to multi path signals being created. Only use this bracket where you can 'pop' the top of the antenna above the roof line (eves), so the antenna is above roof line.

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