Receiver Hardware and Software Troubleshooting

> ***Note****: If the NovAtel product you purchased is visibly defective and has cracked or missing parts, then the following does not apply. In this case please contact NovAtel Customer Support immediately for an RMA (Returned Material Authorization) form.*

When your receiver is not working properly, there are several simple ways to diagnose the problem. In many cases, the issue can be resolved within a few minutes, avoiding the hassle and loss of productivity that results from having to return your receiver for repair.

Try the following troubleshooting steps before contacting NovAtel.

Hardware:

- Check that all cables are securely fastened. (i.e. power, serial and antenna cables).

- Check that a stable DC power supply is being used. (i.e. fully charged battery power, regulated power supply).

- Check that the antenna is connected to a power supply that provides it with sufficient voltage and current as per the antenna specifications.

- If you find that CDU is unable to connect to the receiver, it may be that you have previously used the SAVECONFIG command after setting Break Detection Off using the COM command. In this case, try using a different COM port to communicate to the card. Once communication has been established, issue a LOG COMCONFIG command to check your comport settings and change them if needed. You should now be able to use your original communication port again.

- If possible swap antennas, antenna cables or receivers, in turn, to check if the issue follows a particular component.

Software:

- Issue a FRESET command to reconfigure the receiver back to its factory defaults.

- The SAVECONFIG command will save any configuration commands entered to non volatile memory. The COM command may have been set incorrectly. See the fourth bullet point above on how to get communication to a GPS receiver started again after issuing a SAVECONFIG command.

- Log data to a file for 15 to 30 minutes and send it to a NovAtel Customer Service representative for analysis. Ensure that the data is logged during a time when the receiver

is experiencing the issue you are trying to diagnose (eg. Poor GPS tracking etc.). The Logging Control Window in CDU can be used to capture the data. The logs and their triggers required for analysis are the following:

> RXSTATUSB once
> RAWEPHEMB onchanged
> RANGEB ontime 1
> BESTPOSB ontime 1
> RXCONFIGA once
> VERSIONB once

The GPS file containing the data can be e-mailed with a detailed description of the issue to support@novatel.com. If the file is too large for e-mail, please uploaded the file to the NovAtel ftp site at ftp://ftp.novatel.ca/incoming and reference the file name in your e-mail.

For additional troubleshooting tips, please check the troubleshooting chapter of the installation and operation user manual. The most recent version of our manuals are found on our Web site at http://www.novatel.com/support/docupdates.htm.

If an RMA is required, please contact NovAtel Customer Support for RMA instructions.

For more information on this matter or other products contact:

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