ProPak-G2*plus*™

QUICK START GUIDE

This guide provides the basic information you need to setup and begin using your new ProPak-G2*plus*. For more detailed information on the installation and operation of your receiver, please refer to the user manuals provided on the accompanying CD. To order a printed copy of the manuals, free of charge, follow the instructions given on the enclosed *User Manuals* card.

The ProPak-G2*plus*, is capable of communication with an Inertial Measurement Unit (IMU) through its AUX port. If applicable, refer to your *SPAN User Manual* and *SPAN Quick Start Guide* for more information.

The ProPak-G2*plus*, with 2.200 firmware or higher, provides a USB connection through its COM1 port. The USB drivers, along with installation instructions, are available in the USB Drivers directory of the CD provided.

BOX CONTENTS

In addition to this *Quick Start Guide*, the following is provided with your ProPak-G2*plus*:
- 1 power adapter cable
- 1 USB serial cable
- 2 DB-9 serial cables (1 straight through, 1 null modem)
- 1 I/O cable
- 1 CD containing:
    - An installation program for NovAtel's GPS PC utilities, including *GPSolution®*
    - Product documentation, including user manuals
    - The *OEM4 Software Development Kit*
- *OEM4 Family Quick Reference Guide*
- *User Manuals* card for requesting printed manuals
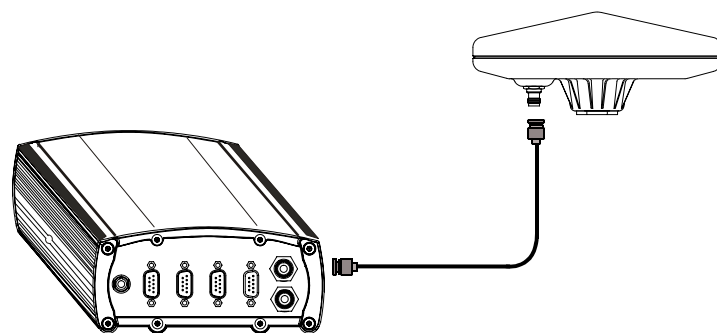
ADDITIONAL EQUIPMENT REQUIRED

The additional equipment listed below is needed for a basic setup:
- A Windows-based PC with an RS-232 DB-9 port
- One of the following:
    - A standard 12 VDC automobile power outlet, or
    - A 9-18 VDC power supply and a power cable with a 4-pin LEMO plug (LEMO part number FGG.0B.304.CLAD52Z) at the receiver end[1]
- A quality GPS antenna, like the GPS-702 from NovAtel
- An antenna cable with a TNC male connector at the receiver end, such as NovAtel's C016 model
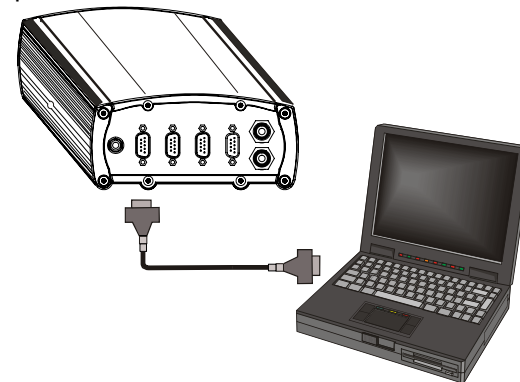
SETTING UP YOUR PROPAK-G2*plus*

Complete the steps below to connect and power your ProPak.

1. Mount the antenna on a secure, stable structure with an unobstructed view of the sky.

2. Using the antenna cable, connect the antenna to the *GPS* ☖ port, which is found on the back face of the ProPak.
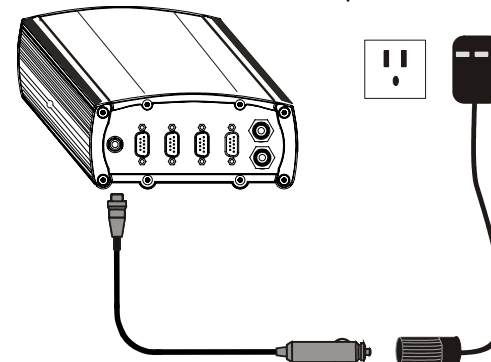

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1. If an alternative power source is preferred, the automobile power adapter can be cut off from the power cable. The exposed wires (red and orange for positive, brown and black for negative) can then be tied to a supply capable of at least 5 W. The use of a 3 A slow-blow fuse is recommended.

3. Connect the *COM1* port on the receiver to a DB-9 or USB serial port on the PC.

4. Line up the red mark on the power cable's connector with the red mark on the receiver's *PWR* connector. Insert the power cable connector in the *PWR* port.

5. Plug in the adapter and/or connect and turn on the power supply. If there is an LED provided above the *PWR* port, the LED will be red when the ProPak is properly powered.

INSTALLING THE PC UTILITIES

Once the ProPak is connected to the PC, antenna, and power supply, install NovAtel's GPS PC utilities.

1. Start up the PC.

2. Insert the accompanying CD in the CD-ROM drive of the computer.

3. Select *Install the OEM4 GPS PC Utilities* from the window that is automatically displayed. If the window does not automatically open when the CD is inserted, select *Run* from the *Start* menu and select the *Browse* button to locate *Setup.exe* on the CD drive.

4. Install the PC utilities by advancing through the steps provided in the *NovAtel GPS PC Utilities* setup utility.

ESTABLISHING COMMUNICATION WITH THE RECEIVER

To open a serial port to communicate with the receiver, complete the following.

1. Launch *GPSolution* from the *Start* menu folder specified during the installation process. The default location is *Start | Programs | OEM4 PC Software*.

2. Open the *Device* menu and select *Open....*

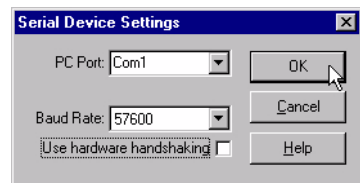3. Select the *New...* button in the *Open* dialog box.

4. Enter a name for the new device configuration in the *Name* field of the *New Config* dialog box.

5. Select the *Settings* button.

6. Select the PC serial port the ProPak is connected to from the *PC Port* drop-down list.

7. Select *57600* from the *Baud Rate* list.

8. Uncheck the *Use hardware handshaking* checkbox.

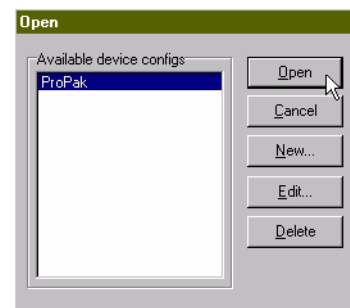9. Select *OK* to save the settings.

10. Select the *OK* button to close the *New Config* dialog box and create the new device configuration.

11. Select the new configuration from the *Available device configs* list in the *Open* dialog box.

12. Select the *Open* button to open communications with the ProPak.

USING GPSOLUTION

GPSolution provides access to key information about your receiver and its position. The information is displayed in windows accessed from the *View* menu. For example, select *Position Window* from the *View* menu to display the position of the receiver. To show details of the GPS and geostationary (SBAS) satellites being tracked, select *Tracking Status Window* from the menu.

DETERMINING WHEN THE POSITION IS VALID

When the receiver has a valid position, the *Solution Status* field in *GPSolution*'s *Position* window will show *Computed*.

ENTERING COMMANDS

The ProPak-G2*plus* uses a comprehensive command interface. Commands can be sent to the receiver using the *Console* window in *GPSolution*, which is opened from the *View* menu. Commands are entered in the text box at the bottom of the window.

The following information is important when entering commands:

- Commands can be entered in three formats: *ASCII*, *Abbreviated ASCII*, and *Binary. Abbreviated ASCII* is the best format to use when you wish to work with the receiver directly.
- Press the *Enter* key to send the command string to the receiver.
- The commands are not case sensitive.
- Ensure that all windows in GPSolution, other than the Console window, are closed before using the SAVECONFIG command.

The *OEM4 Family Quick Reference Guide* provided with the receiver lists all the available commands and the parameters they use for the *Abbreviated ASCII* format.

ENABLING SBAS POSITIONING

Certain models of the ProPak-G2*plus* are also capable of SBAS positioning. This positioning mode is enabled using the SBAS-CONTROL command. At the time of publication, the WAAS (North America) and EGNOS (Europe) systems are in test mode. As a result, the following commands are typically used to enable WAAS and EGNOS modes, respectively:

```
SBASCONTROL ENABLE WAAS 0 ZEROTOTWO

SBASCONTROL ENABLE EGNOS 120 ZEROTOTWO
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Once enabled, the *Position Type* field shown in *GPSolution*'s *Position* window should change from *Single* to *WAAS*.