This guide provides the basic information you need to setup and begin using your new ProPak-4E. 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.

**BOX CONTENTS**

In addition to this Quick Start Guide, the following is provided with your ProPak-4E:

- 1 automobile power adapter cable
- 2 serial cables
- 1 cable for the supplementary strobe signal port
- 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
  - NovAtel’s GPS-APRO model AC adapter, or
  - A 10 - 36 VDC power supply capable of at least 4.0 W and a power cable with a 4-pin LEMO socket (LEMO part number FGJ.0B.304.CNLD52Z) at the receiver end
- A quality GPS antenna, like the GPS-600 from NovAtel
- An antenna RF cable with a TNC male connector at the receiver end, such as NovAtel’s C016 model

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 10-36 VDC supply capable of at least 4.0 W. The use of a 3 A slow-blow fuse is recommended.

**SETTING UP YOUR PROPAK-4E**

Complete the steps below to connect and power your ProPak.

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

2. Using the antenna RF cable, connect the antenna to the RF port, which is found on the front face of the ProPak.

3. Connect the COM1 port on the receiver to a serial port on the PC, using the provided null modem serial cable. The cable will have a white label with the number 01016329 on it. Line up the red mark on the cable’s connector with the red mark on the top of the COM1 connector when inserting the cable.

4. Connect the power cable to the power port, which is found towards the bottom of the front face of the ProPak, below the COM1 and RF ports. The power cable provided with the ProPak has a 4-pin, keyed connector at the receiver end.

5. Plug in the adapter and/or connect and turn on the power supply. When the ProPak is properly powered, the LED on the back face of the ProPak will be lit.

**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. Install the PC utilities by advancing through the steps provided in the NovAtel GPS PC Utilities setup utility. If the setup utility is not automatically accessible when the CD is inserted, select Run from the Start menu and select the Browse button to locate Setup.exe on the CD drive.

**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 configuration in the Name field of the New Config dialog box and then select the Settings button.

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

6. Select 57600 from the Baud Rate list.

7. Uncheck the Use hardware handshaking checkbox.
8. Select OK to save the settings.

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

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

11. Select the Open button to open communications with the ProPak.

ENTERING COMMANDS
The ProPak-4E 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.

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.

LOGGING DATA
An extensive collection of logs has been created to capture the data your ProPak receives and processes. These logs can be directed to any of the ProPak’s serial ports and can be automatically generated when new or changed data becomes available or at regular intervals. The available logs are listed in the OEM4 Family Quick Reference Guide.

To log data, use the LOG command. For example, to log the pseudorange position to COM2 every 30 seconds, enter the following:

```
LOG COM2 PSRPOS ONTIME 30
```

Logs can be generated in one of three formats: ASCII, Abbreviated ASCII, or Binary. See Volume 2 of the OEM4 Family User Manual for information on the LOG command, specifying the output format, and the details of each log.

If you prefer, GPSolution also provides a graphical interface for configuring data logging. Select Logging Control Window from the View menu to open the Logging Control window. In this window, you can select which logs to capture and choose which ports to send the data to. In addition, you can specify a file in which to save the data.

DETERMINING WHEN THE POSITION IS VALID
When the receiver has a valid position, the LED on the back face of the ProPak will turn green. In addition, the Solution Status field in GPSolution’s Position window will show Computed.

ENABLING SBAS POSITIONING
Certain models of the ProPak-4E are capable of SBAS positioning. This positioning mode is enabled using the WAASCORRECTION 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:

- WAASCORRECTION ENABLE 0 WAASTESTMODE
- WAASCORRECTION ENABLE 120 EGNOSTESTMODE

Once enabled, the Position Type field shown in GPSolution’s Position window should change from Single to WAAS.

AVAILABLE PORTS
In addition to the power and antenna ports, there are two serial ports and one strobe port provided on the ProPak-4E. The COM 1 and COM 2 ports provide RS-232 signals. The I/O port supplies access to supplementary strobe signals such as a mark input and a programmable variable frequency output. The specifications for these ports, including signal descriptions and connector details, are given in Volume 1 of the OEM4 Family User Manual.

QUESTIONS OR COMMENTS
If you have any questions or comments regarding your ProPak-4E, please contact NovAtel Customer Service using one of methods provided below.

Email: support@novatel.ca
Web: www.novatel.com
Phone: 1-800-NOVATEL (U.S. & Canada) 403-295-4900 (International)
Fax: 403-295-4901

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