

## QUICK START GUIDE

This guide provides the basic information you need to setup and begin using your new DL-4plus. 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 DL-4plus, 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 DL-4plus:

- 1 CompactFlash™ card
- 1 12V power cable, 1 I/O cable, 1 USB cable, 1 null modem cable, 1 straight through serial cable)
- 1 CD containing:
  - An installation program for NovAtel's GPS PC utilities, including *GPSolution®* and *DL4Tool™*
  - Product documentation, including user manuals
  - The *OEM4 Software Development Kit*
- *DL-4plus LCD Menus Quick Look*
- *OEM4 Family Quick Reference Guide*
- *User Manuals* card for requesting printed manuals

## ADDITIONAL EQUIPMENT REQUIRED

The additional equipment in this list is needed for a basic setup:

- A Windows-based PC with an RS-232 DB-9 port
- A quality GPS antenna, like NovAtel's GPS-702
- An antenna RF cable with a TNC male connector at the receiver end, such as NovAtel's C016 model
- One of the following:
  - A standard 12 VDC automobile power outlet, or a 7 - 18 VDC power supply capable of at least 4.0 W and a power cable with a 4-pin LEMO plug (LEMO part number FGG.0B.304.CLAD52Z) at the receiver end<sup>1</sup>

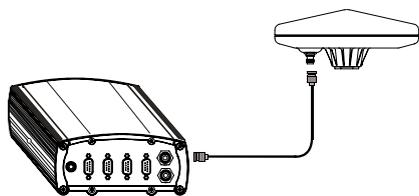
## SETTING UP YOUR DL-4plus

Complete the steps below to connect and power your DL-4plus.

1. Mount the GPS antenna on a secure, stable structure with an unobstructed view of the sky.
2. Insert the provided CompactFlash card into the slot provided behind the door on the front face of the DL-4plus. Open the door by loosening the screw at the right end.



3. Using the antenna RF cable, connect the GPS antenna to the GPS port, which is found on the DL-4plus back face.

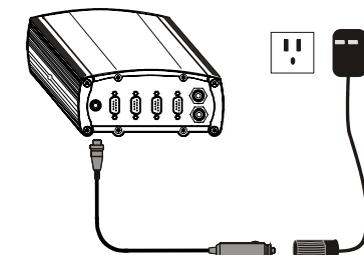


1. If an alternative power source is preferred, the automobile power adapter can be cut off from the power cable. The exposed wires (red and orange for positive, brown and black for negative) can then be tied to a 7-18 VDC supply capable of at least 4.0 W. The use of a 3 A slow-blow fuse is recommended.

4. Connect the COM1 port on the receiver to a serial port on the PC, using the provided serial or USB cable.



5. Connect the power cable to the PWR port by lining up the red mark on the receiver connector with the red mark on the cable connector.



6. Plug in a user-supplied adapter and/or connect and turn on the power supply. When the DL-4plus is properly powered, the PWR LED is red.

7. Press the  button on the front face of the DL-4plus.

## COMPACTFLASH CARD

You may get a DISK ERROR message on the LCD screen of the DL-4plus. If so, enter the following using *GPSolution*:

DISK FORMAT

Wait a few minutes until the error message is gone. Use the DL-4plus power button to turn it off and then on again. When power is returned, the DL-4plus should be able to use the flash card.

## INSTALLING THE PC UTILITIES

Once the DL-4plus 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.

## CREATING A LOG GROUP USING DL4TOOL

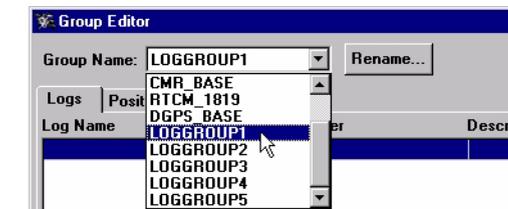
Log groups are sets of logs to be captured by the DL-4plus. A group can be created in *DL4Tool* and then downloaded to the DL-4plus.

1. Launch *DL4Tool* from the *Start* menu folder specified during the installation process. The default location is *Start | Programs | OEM4 PC Software*.
2. Select the *Group Editor* button.

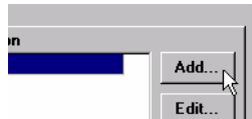


Within the *Group Editor*, pre-defined log groups are provided for use during common operational modes. In addition, five empty log groups are provided. Both the pre-defined and empty log groups are editable.

3. Select *LOGGROUP1* from the *Group Name* drop-down list and, if desired, use the *Rename...* button to rename the group.



- Select the *Add...* button to add a log to the group.



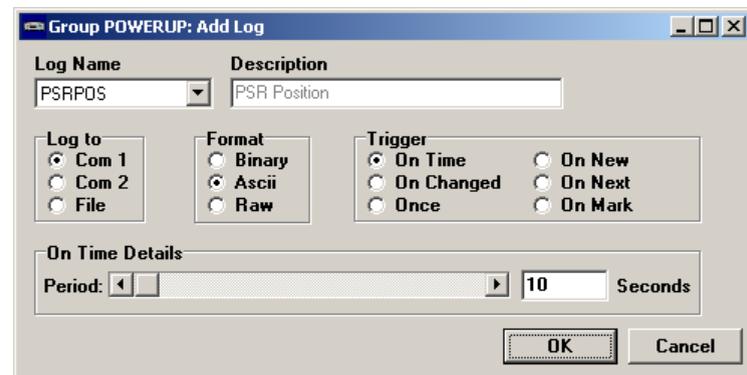
- Select the log to add from the *Log Name* drop-down list.

- Select the *Disk* radio button to log to the internal CompactFlash.

- Select the log format using the *Format* radio buttons

- Select the trigger for the log using the *Trigger* radio buttons. If the *On Time* trigger is selected, select the period for logging using the *Period* scroll bar.

- Select *OK* to add the new log to the log group.



- Repeat steps 4 through 9 to add more logs to the group.

- Select *OK* in the *Group Editor* dialog box to save the changes to the group.



## UPLOADING A LOG GROUP

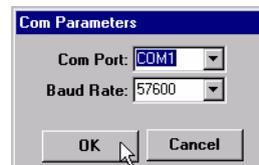
Once a log group has been created, it can be uploaded to the DL-4*plus*. The steps below provide information on uploading a group.

- Select the *Comm Params* button from the main *DL4Tool*

window.



- In the *Com Parameters* dialog box, select the PC serial port the DL-4*plus* is connected to from the *Com Port* drop-down list and *57600* from the *Baud Rate* list and then select *OK*.



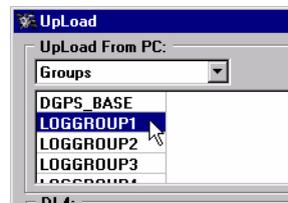
- Select the *UpLoad* button.



- In the *UpLoad* dialog box, select the *Connect* button to establish communications with the DL-4*plus*.



- Select the group to upload to the DL-4*plus* from the list of groups on the PC.



- Select the *UpLoad* button to copy the group.



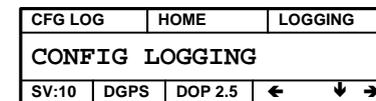
- Press the *Disconnect* button and close the *UpLoad* dialog.

Repeat these steps to upload more log groups. Up to 5 log groups can be stored in the DL-4*plus* at any one time.

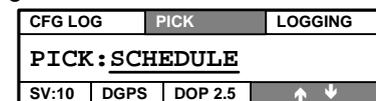
## LOGGING THE DATA

After the log group has been uploaded, the DL-4*plus* can be set to begin logging data by using the LCD screen and controls on the front face of the unit.

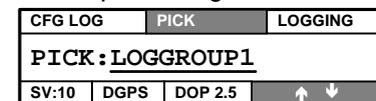
- Press the button three times to navigate to the *CONFIG LOGGING* menu on the LCD screen.



- Press the button and then the button to move to the following screen.

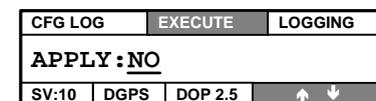


- Press the button until the name of the log group you would like the DL-4*plus* to log is shown.

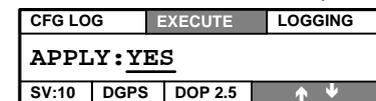


- Press the button to select the log group.

- Press the button and then the button to move to the screen shown below.



- Press the button until the *YES* option is selected.



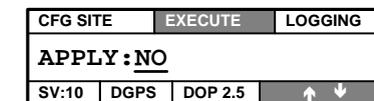
- Press the button to begin logging of the selected group.

- Press the button to return to the main menu.

Your data logs are now being recorded to the internal flash card.

## STOPPING LOGGING

To stop logging, first navigate to the *CONFIG LOGGING* menu and select the name of the group in the *PICK* screen. Then, select *NO* in the *APPLY* screen to stop logging of that group.



See the *DL-4plus User Manual* for information on how to retrieve the data once logging is stopped.

## GPSOLUTION

Along with your DL-4*plus*, *GPSolution*® is included to provide a graphical display of key information about your receiver and its position. For more information about using *GPSolution* with your receiver, please review the documentation provided on the enclosed CD.

## DETERMINING WHEN THE POSITION IS VALID

When the receiver has a valid position, the *Position Mode* area in the lower left corner of the screen, to the right of the satellite count, displays the current position mode rather than *NONE*.

## QUESTIONS OR COMMENTS

If you have any questions or comments regarding your DL-4*plus*, please contact NovAtel Customer Service using one of methods provided below.

Email: [support@novatel.ca](mailto:support@novatel.ca)

Web: [www.novatel.com](http://www.novatel.com)

Phone: 1-800-NOVATEL (U.S. & Canada)  
403-295-4900 (International)

Fax: 403-295-4901

