

# **View8300 Software User's Manual**

Monitoring and configuration software  
for the OmniSTAR 8300HP receiver



Issue 1.0, January 2005

## Notice to Customers

This manual has been produced to provide instructions how to use View8300 version 2.1 software with your OmniSTAR 8300HP receiver. The manual has been clearly set out with simple instructions to ensure trouble free usage of the software.

This publication could contain technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the manual.

REVISION HISTORY		
Issue 1.0	January 2005	First Issue

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# Omnistar View8300 Software User's Manual

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## Introduction

### About This Manual

This manual has been produced to allow the typical user to easily control the OmniSTAR 8300HP from your PC.

### Requirements

A windows 9X/ME/NT/2000/XP based PC with one RS232 COMM. Port is needed for the View8300 software.

## Installation

Double click on the View8300 setup.exe file.

Follow the on screen instructions to install the View8300 software.

## Starting the View8300 software

### Connect the 8300HP to the computer

Before using the software the HP port of the 8300HP must be connected to the serial port of the PC via the serial cable that was provided with the 8300HP.

### Start up the View8300 software

Click on the Windows Start button and select Programs -> OmniSTAR -> View8300 and click on View8300.

If you've chosen a different location for the software during the installation than go to that location to start up View8300.

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Once the program has started you'll see the following screen.

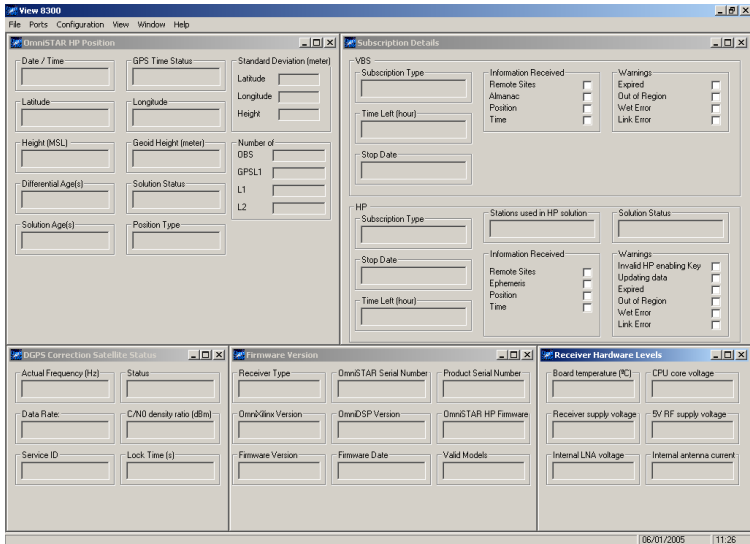


Figure 1 Main screen after start up

## Connect View8300 to the 8300HP

From the main screen menu (see figure 1) click File -> Connect. The Select Com Port window will pop-up (see figure 2). Select the comm. port of the PC the 8300HP is attached to and configure the port using the Configure button.

The most common setting for the communication is 9600 baud, 8 data bits, N parity and 1 stop bit.

After clicking OK from the Select Com Port window the program returns to the main screen and the labels should be filled with information from the receiver (see figure 3).

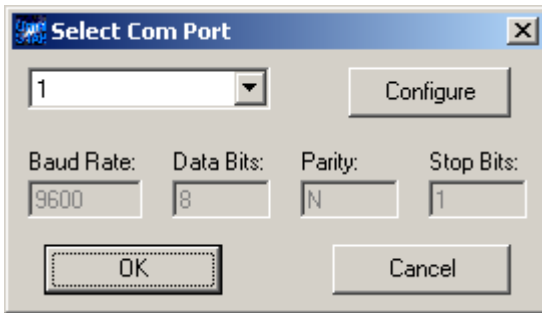


Figure 2 Select Com Port window

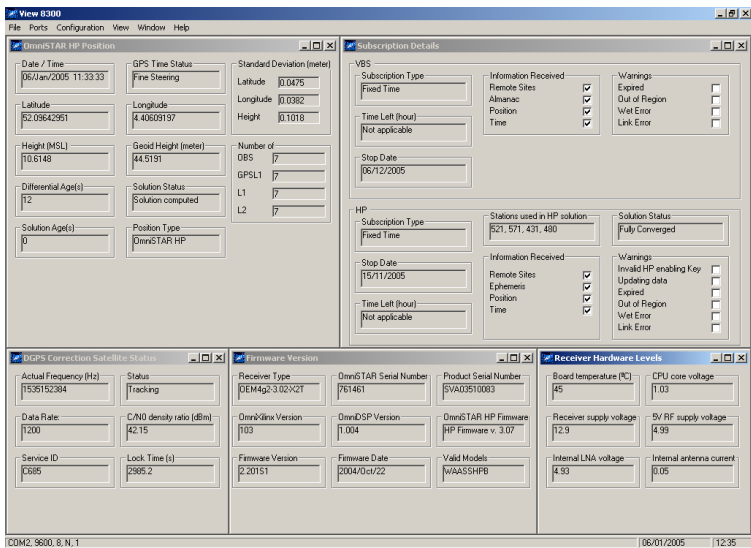


Figure 3 Main screen after connection

## Checking the status of the 8300HP

### Position window

The position window (see figure 4) provides the current position of the antenna connected to the receiver.

It also provides the date and time, standard deviation values, position type, position status, Age of Data of the OmniSTAR correction signal, number of L1 and L2 observations and the solution age.

The screenshot shows a software window titled "OmniSTAR HP Position". The window contains several input fields for displaying GPS data:

Field Name	Value
Date / Time	06/Jan/2005 11:35:55
GPS Time Status	Fine Steering
Standard Deviation (meter)	
Latitude	0.0451
Longitude	0.0369
Height	0.0979
Latitude	52.09642965
Longitude	4.40609159
Height (MSL)	10.5004
Geoid Height (meter)	44.5191
Number of	
OBS	7
GPSL1	7
L1	7
L2	7
Differential Age(s)	11
Solution Status	Solution computed
Solution Age(s)	0
Position Type	OmniSTAR HP

Figure 4 Position window

### DGPS correction satellite status window

The DGPS correction satellite window (see figure 5) provides detailed information about the status of the connection with the OmniSTAR satellite.

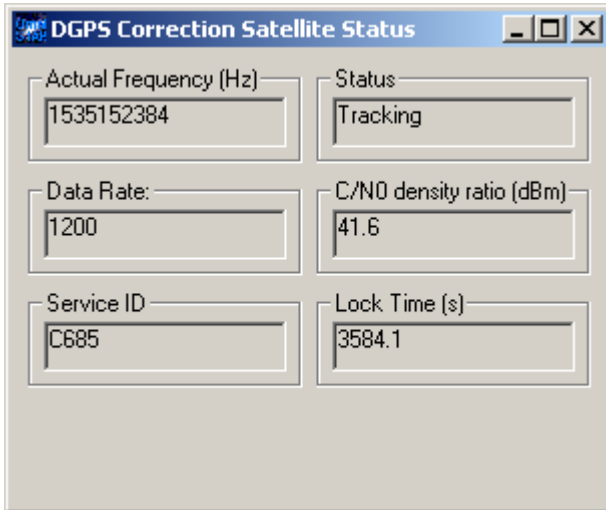


Figure 5 DGPS correction satellite status window



## Subscription details window

The subscription details window (see figure 6) provides the OmniSTAR VBS and OmniSTAR HP subscription information.

The screenshot shows a window titled "Subscription Details" with two main sections: VBS and HP.

**VBS Section:**

- Subscription Type: Fixed Time
- Time Left (hour): Not applicable
- Stop Date: 06/12/2005
- Information Received: Remote Sites (checked), Almanac (checked), Position (checked), Time (checked)
- Warnings: Expired (unchecked), Out of Region (unchecked), Wet Error (unchecked), Link Error (unchecked)

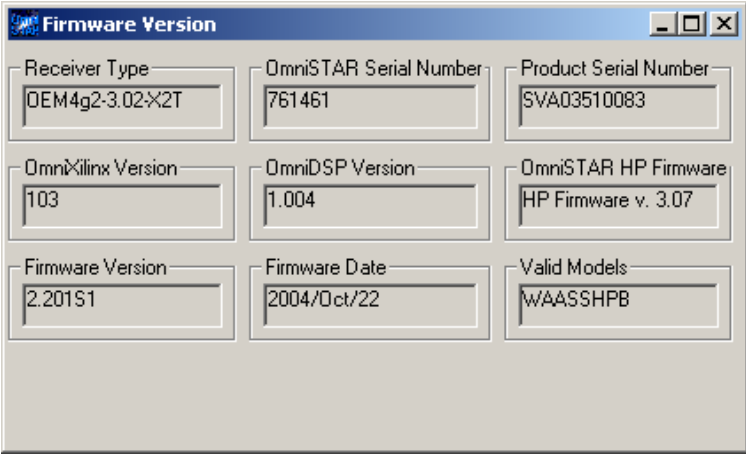
**HP Section:**

- Subscription Type: Fixed Time
- Stations used in HP solution: 521, 571, 431, 480
- Solution Status: Fully Converged
- Stop Date: 15/11/2005
- Time Left (hour): Not applicable
- Information Received: Remote Sites (checked), Ephemeris (checked), Position (checked), Time (checked)
- Warnings: Invalid HP enabling Key (unchecked), Updating data (unchecked), Expired (unchecked), Out of Region (unchecked), Wet Error (unchecked), Link Error (unchecked)

Figure 6 Subscription details window

### Firmware version window

The firmware version window (see figure 7) provides the receiver type, serial number and firmware versions.



The screenshot shows a window titled "Firmware Version" with a blue header bar. The window contains nine text input fields arranged in a 3x3 grid. The values in the fields are as follows:

Receiver Type	OmniSTAR Serial Number	Product Serial Number
OEM4g2-3.02-X2T	761461	SVA03510083
OmniXilinx Version	OmniDSP Version	OmniSTAR HP Firmware
103	1.004	HP Firmware v. 3.07
Firmware Version	Firmware Date	Valid Models
2.20151	2004/Oct/22	WAASSHPB

Figure 7 Firmware version window

### Receiver hardware levels window

The Receiver hardware levels window (see figure 8) provides the receiver's board temperature, CPU core voltage, supply voltage, RF supply voltage, LNA voltage and antenna current.

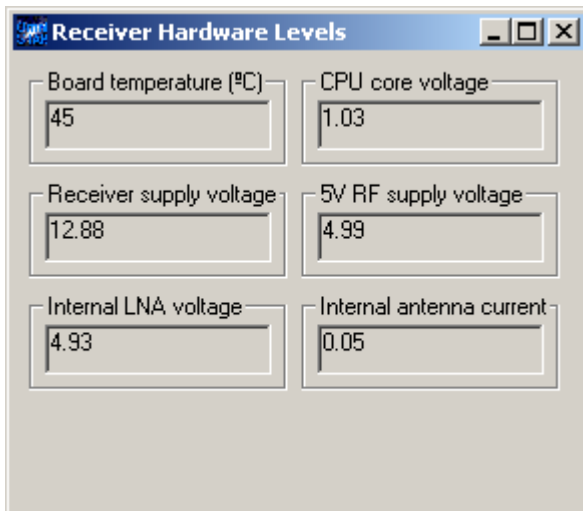


Figure 8 GPS Satellites window

## Configure the 8300HP

### Configure the OmniSTAR satellite service

From the main screen menu click Configuration -> DGPS service. The Select DGPS service window (see figure 11) will pop-up.

Select OmniSTAR as the HP and differential source and choose the right satellite for your region or fill in a frequency and baud rate manually.

Clicking OK will send the changes to the receiver. Clicking Cancel will discard them.

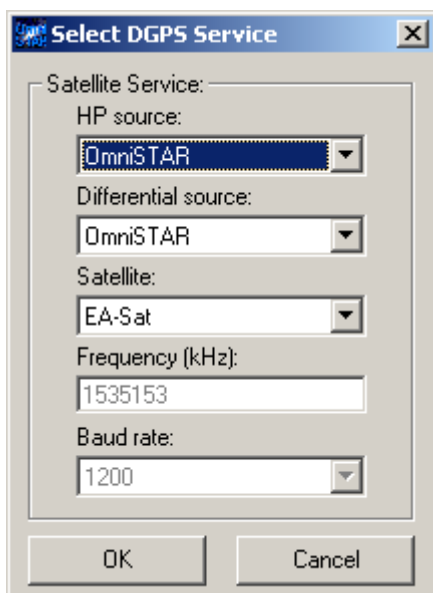


Figure 9 Select DGPS Service window

### Configure the receiver ports

From the main screen menu click Ports -> Port 1,2,3.

The Port settings window (see figure 12) will pop-up.

Clicking OK will send the changes to the receiver. Clicking Cancel will discard them.

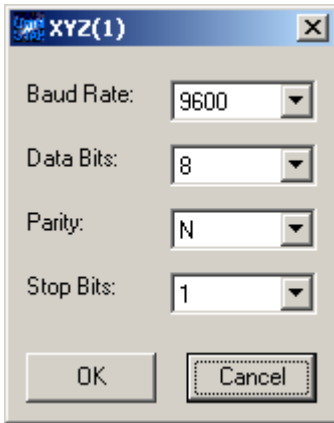


Figure 10 Port settings window

### Configure the receiver parameters

From the main screen menu click Configuration -> Receiver parameters.

The Receiver parameters window (see figure 13) will pop-up.

Clicking OK will send the changes to the receiver. Clicking Cancel will discard them.

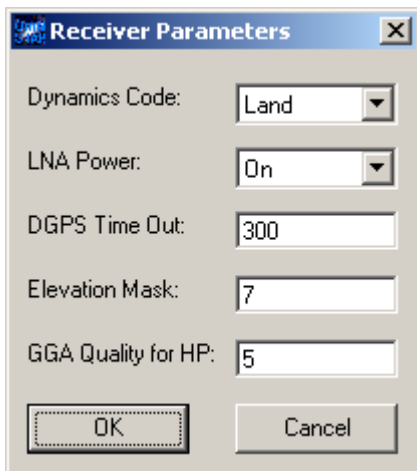


Figure 11 Receiver parameters window

### 7 Parameter Datum transformation

From the main screen menu click Configuration -> Datum.

The Datum window (see figure 14) will pop-up.

Clicking OK will send the changes to the receiver. Clicking Cancel will discard them.

**Datum**

7 Parameter Datum Transformation

Datum:  Year (yyyy):

Customized ellipsoidal datum parameters:

Datum Semi-Major Axis(a) in meters:

Reciprocal Flattening,  $1/f = a/(a-b)$ :

x Axis Offset from WGS84 (meters):

y Axis Offset from WGS84 (meters):

z Axis Offset from WGS84 (meters):

X Axis Rotation Angle (arc seconds):

Y Axis Rotation Angle (arc seconds):

Z Axis Rotation Angle (arc seconds):

ppm Offset from WGS84:

Figure 12 Datum window

### Configure NMEA output

From the main screen menu click Configuration -> Output -> Port 1,2,3.

The Port output window (see figure 13) will pop-up.

Clicking OK will send the changes to the receiver. Clicking Cancel will discard them.

Message ID:	Period (s):
<input type="checkbox"/> ALM	<input type="text"/>
<input type="checkbox"/> GGA	<input type="text"/>
<input type="checkbox"/> GGARTK	<input type="text"/>
<input checked="" type="checkbox"/> GGALONG	<input type="text" value="1"/>
<input type="checkbox"/> GLL	<input type="text"/>
<input type="checkbox"/> GRS	<input type="text"/>
<input type="checkbox"/> GSA	<input type="text"/>
<input type="checkbox"/> GST	<input type="text"/>
<input type="checkbox"/> GSV	<input type="text"/>
<input type="checkbox"/> RMC	<input type="text"/>
<input type="checkbox"/> VTG	<input type="text"/>
<input type="checkbox"/> ZDA	<input type="text"/>
<input type="checkbox"/> OMNISTAT	<input type="text"/>
<input type="checkbox"/> OMNIINFO	<input type="text"/>
<input checked="" type="checkbox"/> OMNIHPPPOS	<input type="text" value="1"/>

OK Cancel

Figure 13 Port output window



### Configure 1PPS output

From the main screen menu click Configuration -> PPS Control.

The PPS Control window (see figure 14) will pop-up.

Clicking OK will send the changes to the receiver. Clicking Cancel will discard them.

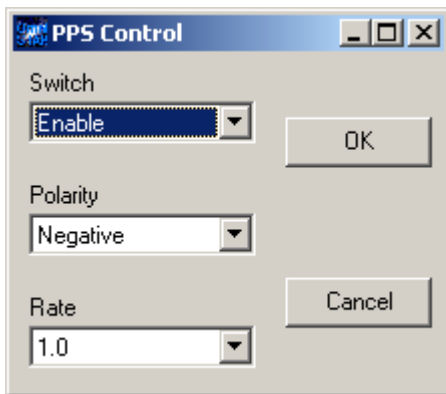


Figure 14 PPS Control window