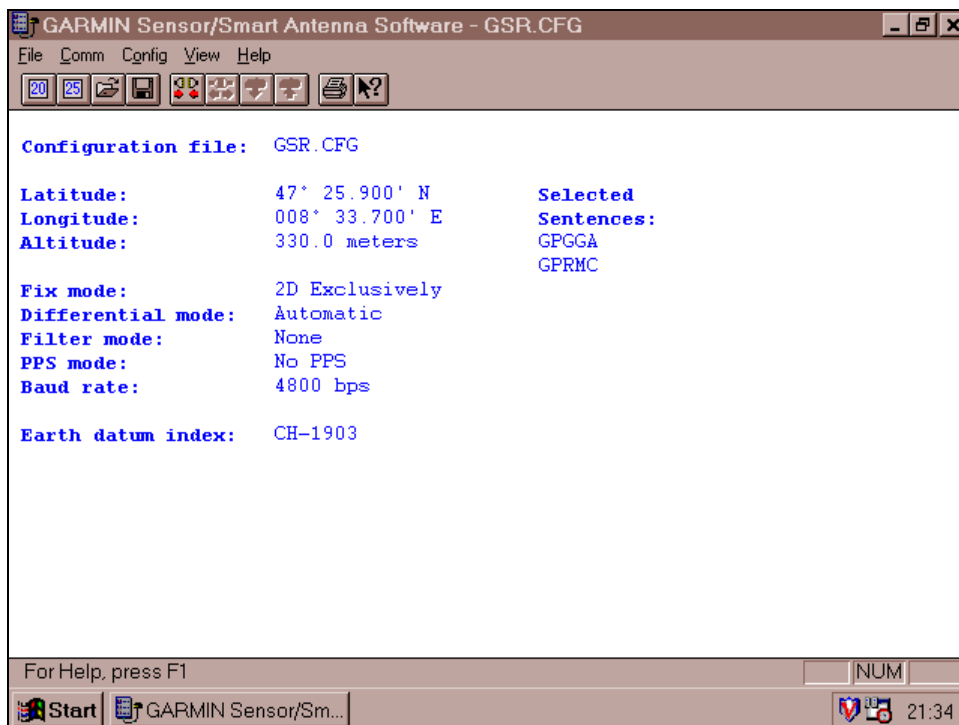


## GPS Test Program Procedure

In case your GPS should loose once the GSR configured setting follow the instructions mentioned below to re-load the GSR configuration.

- Connect the GPS to the supplied GPS-PC test cable.
- Connect the GPS-PC test cable on COM1 or COM2 at your computer
- Connect the red and black cable to a 12 V Power Supply or Battery (e.g. GSR battery)
- Run the GPS program with the file "GPSCFG".
- Install the GPS files using the File Manager under Windows 3.1 or the "Run" command under Windows 95 and type A:\Setup.exe.
- Follow the installation instructions
- Once the installation is terminated you will find the following screen being shown up.



- Open the file "GSR.CFG" stored on the supplied GPS diskette and save the file into the just new created directory in drive C.
- With your mouse cursor, go to "Comm" and then enter connect or click the appropriate symbol.
- Press F10 or click the appropriate symbol in your toolbar to upload the "GSR.CFG" configuration to the connected GPS. The GPS should then have the configuration stored and be ready to be connected again to the GSR recorder (see GSR Operation Manual section 4.4.10 Time Receiver).

To check and visually see the actual GPS communication status you may also use the following steps (make sure the GPS is still connected as described above).

- Go to the MS-DOS mode in your new created directory and enter: NMEAVWR
- The NMEA 0183 Viewer window will show up.
- If the GPS is connected properly, the window will start immediately showing different GPS information details.
- If no information is being shown you either have not connected the GPS properly or the wrong COM port is selected.

- To change the COM port, exit the program and issue the following command when starting the program: c:\NMEAVWR.EXE /b:4800 COM2 or c:\NMEAVWR.EXE /b:4800 COM1 depending on which COM you are connected.
- If you are connected, you will find various GPS information details on the top left of your screen.
- Selecting GPGSV (1 of 2) and (2 of 2) (using up/down arrow keys) will show the detected satellites. The receipt of the signal is confirmed if the satellite shows the "dB" value very right column. To get proper signals the value should be around 40 dB. Minimum 3 satellites should be detected to receive the time signal.
- Selecting GPGGA will show the altitude and longitude and correct time providing you have at least 4 satellites. The time is visible normally already with 3 satellites. To get the satellite locked in quicker enter the approximate UTC time in your PC.

### Other important Notes:

When connecting the GPS to your GSR Recorder make first the following checks:

- The Time Receiver option must be selected in the System Program. Check in the program Fieldview if the Time Receiver in the menu ,Recorder (Recorder Display, System) is activated [X].
- If not, get the Time Receiver activated by selecting it in the TermView program (TermView) in the FieldView software program.
- Type: >SOP 05 and press ENTER.
- To Check type: >GOP and press ENTER. The reply should show: >Options [HEX]: 5.
- Type: >Exit to return to the main menu.
- Follow the instruction in the GSR Manual section 4.4.10 Time Receiver

The GARMIN GPS-31HV needs the following set-up sequence for the operation with the GSR:

```
send2_string("$PGRMO,,2", 9);          /* disable all output sentences */
send2_char(ASCII_CR);
send2_char(ASCII_LF);
send2_string("$PGRMO,GPGGA,1", 14);     /* enable GPGGA sentence */
send2_char(ASCII_CR);
send2_char(ASCII_LF);
send2_string("$PGRMO,GPRMC,1", 14);     /* enable GPRMC sentence */
send2_char(ASCII_CR);
send2_char(ASCII_LF);
send2_string("$PGRMC,,,,,,,,,2,9,", 22); /* set 1 PPS (1/4 duty cycle) */
send2_char(ASCII_CR);
send2_char(ASCII_LF);
```