



Download Software 2.29 For Vigil[®] I, II & 2⁺ - User's Manual

US Version 2.9
(2014)

The Vigil is endorsed by:



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1. INTRODUCTION

Thank you for purchasing the IR Download Box and the Vigil® Download Software 2.xx, an accessory created by **A.A.D.** n.v./s.a. This manual is valid for every Vigil® Download Software version higher than 2.23

The Vigil® is the only AAD on the market that has a readable data recorder function (black box), which is accessible to its user. The unit memorizes the last 16 minutes of freefall time (with a maximum of 16 graphs, whichever is reached first), the total time in freefall and the total number of jumps.

This accessory allows, for the first time in the history of AAD's, the download of the jump information to the computer by the user.

A new Vigil setting can be transferred from the computer to the unit (see § 5-E).

The IR Download Box of your "Guardian Angel" is easy to install on all computers on the market (with Windows 8, 7, Vista, XP, 98, 2000, ... as well as with MAC OS10 with Virtual Machine) thanks to the drivers recorded on the installation CD. The IR Download Box is connected to the computer via a standard USB connection.



REMEMBER:

The Vigil® is a **safety** device and is not to be used as a data logger

2. INSTALLATION ON THE PC

A. Software

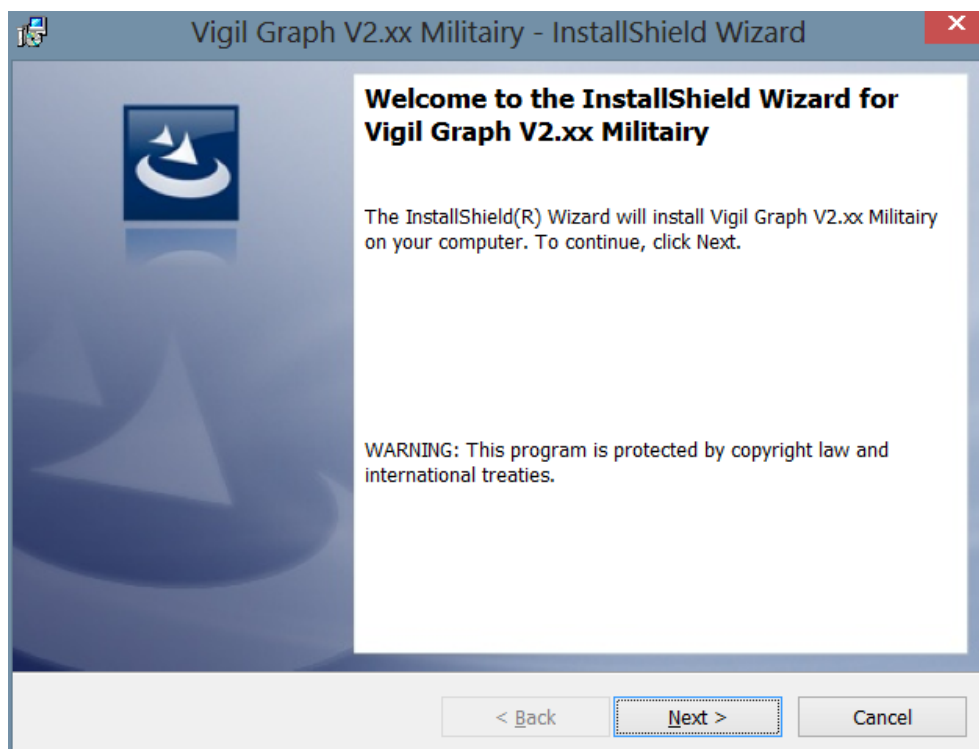
The Vigil® Download Software 2.xx can be installed on all computers that use Windows 8, 7, Vista, XP, 98, 2000, Millennium or MAC OS10 VIRTUAL MACHINE.

1. Insert the CD into the appropriate drive
2. Wait for the CD to start automatically

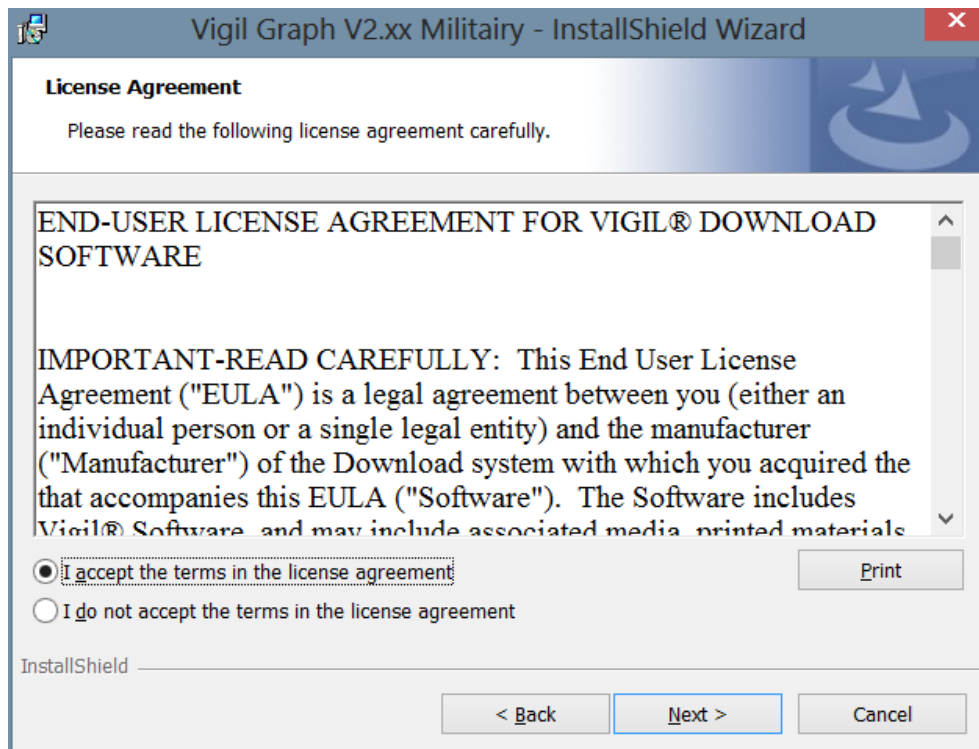
Note: If the CD does **not** start automatically, click on the Windows icon named **"My Computer"**. The window shows the drives available on the computer.

Double-click the icon of the CD-ROM drive to see the list of files on the CD. Double-click the file named 'setup.exe' to start the installation.

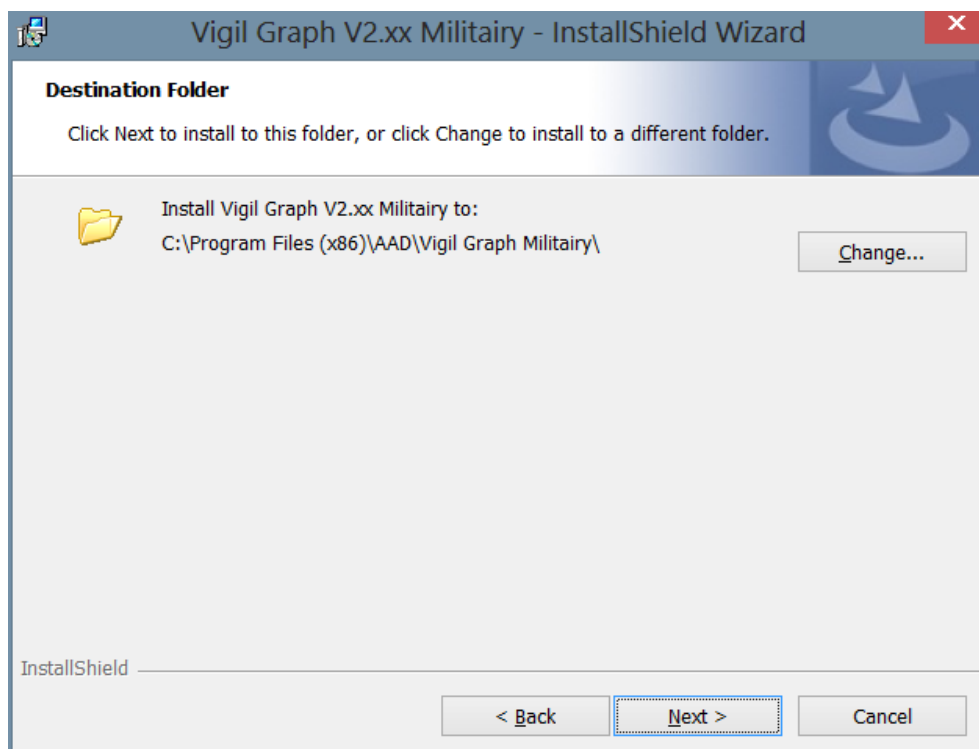
The Setup of the installation is starting:



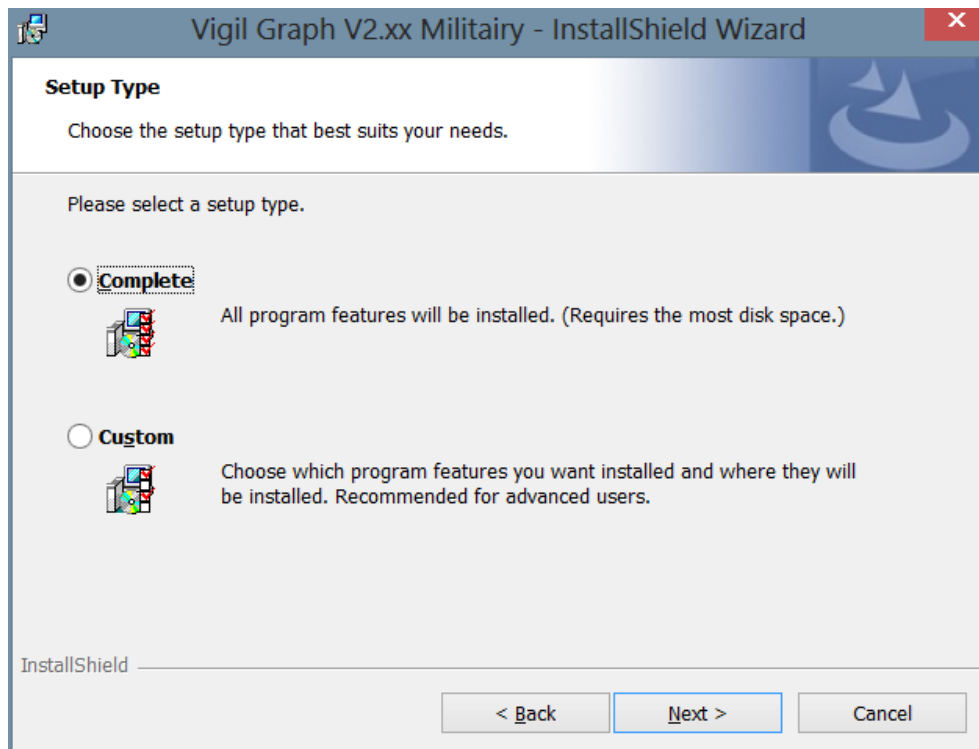
3. Click "Next"



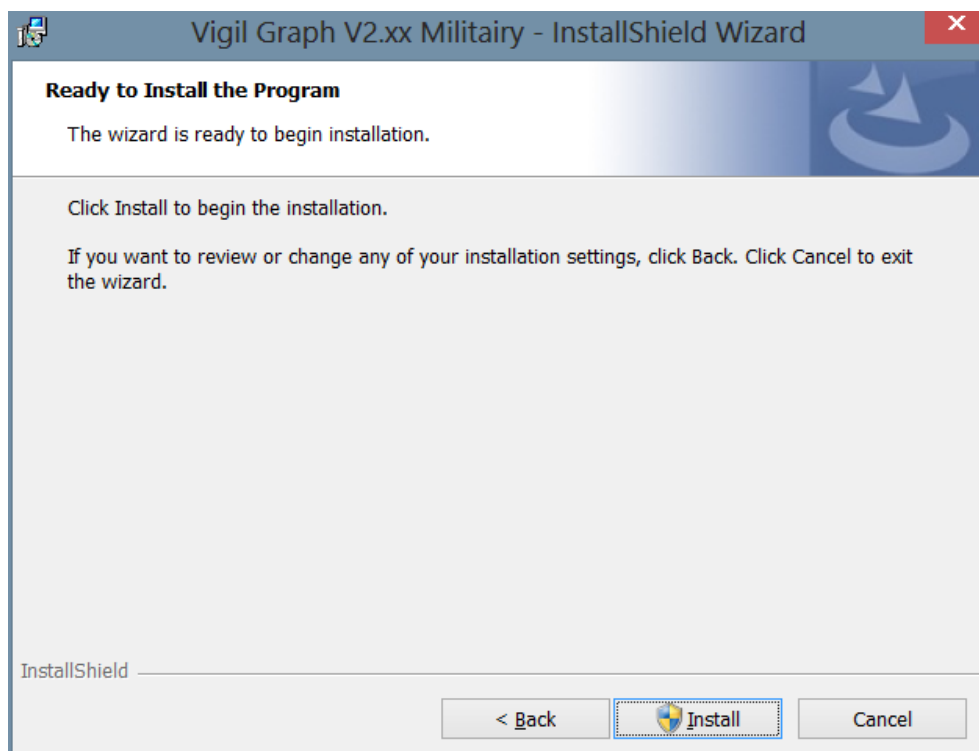
4. Select "I accept the terms in the license agreement" and click "Next" to continue



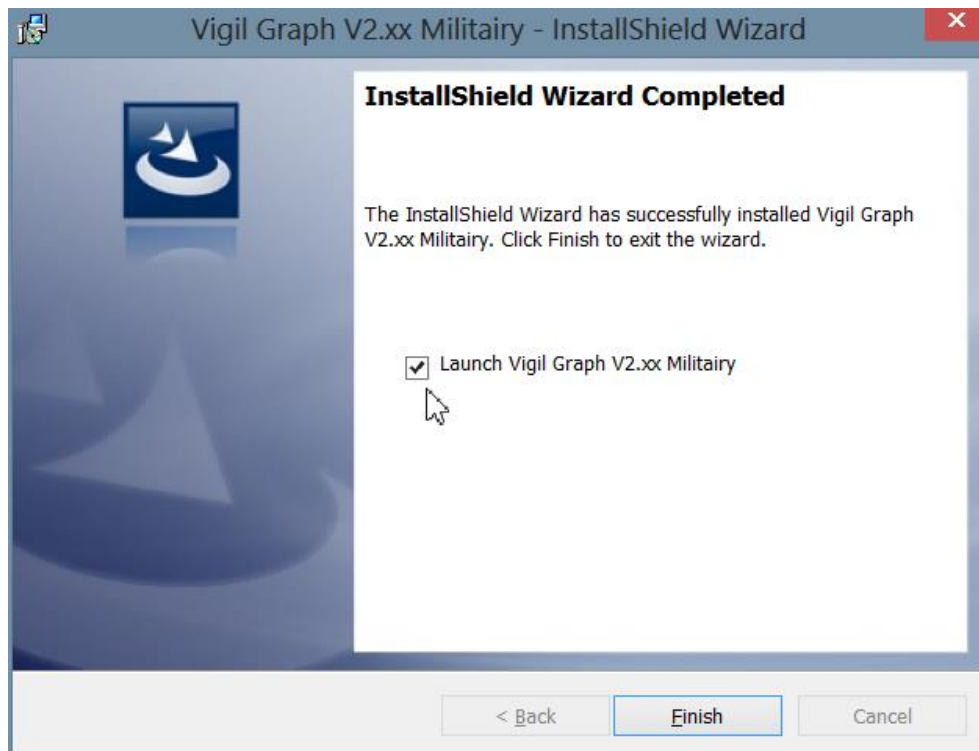
5. Click "Next"



6. Select "Complete" setup and click "Next"



7. Click "Install" and wait for the installation to complete



8. Select the checkbox to launch the application (this will start CDM.exe to install the USB drivers for the IR box)
9. Click "Finish" to complete the Setup

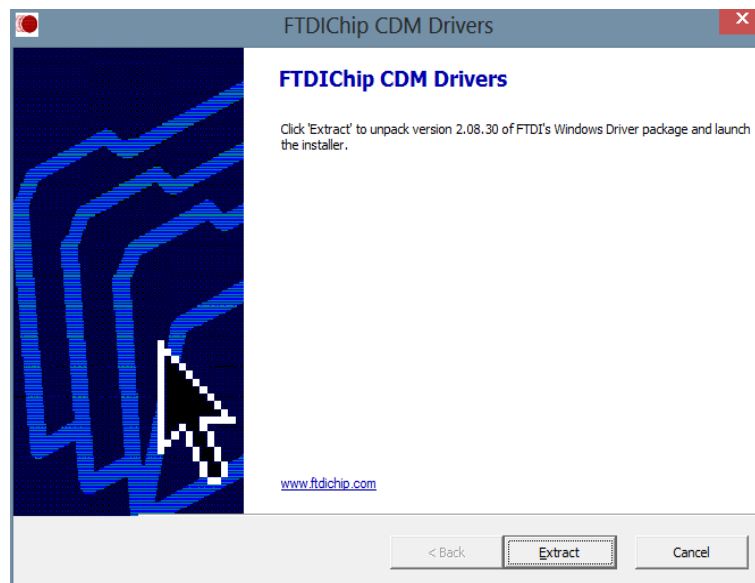
B. USB IR box

To install the USB drivers for the IR box, CDM.exe will start automatically after selecting the checkbox above, or start CDM.exe manually if the checkbox above has not been selected after installation (Please make sure to have administrator rights before installing these drivers).

1. Go to “Start Menu – Programs – AAD – Vigil Graph V2.xx Military – Launch CDM.exe”:



2. The FTDI's Windows Driver package installation screen will appear:



3. Press “Extract”

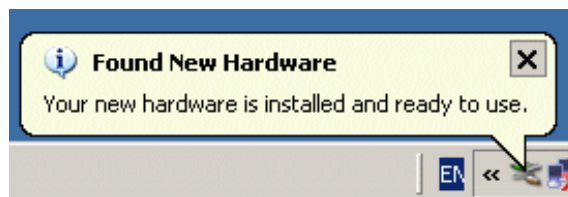


4. Press “Next”



5. Press "Finish" to complete the setup
6. After installation, plug the Vigil Download Box into a USB Port of the computer
7. The computer will detect the new hardware automatically and will install the drivers for it

A message appears in the Windows task bar to indicate the new hardware was successfully installed:



8. Launch the Vigil Download Software

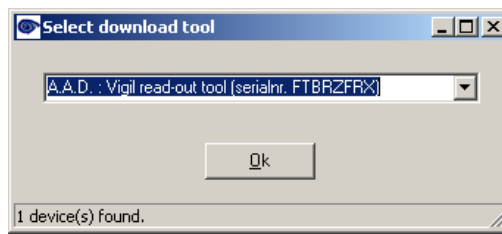
3. DOWNLOADING

A. Software settings

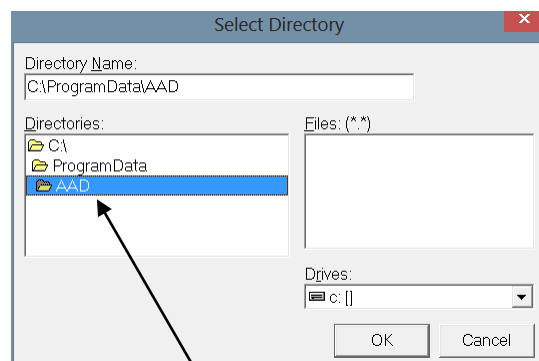
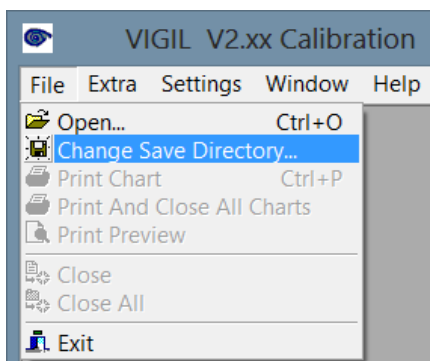
1. Launch the Vigil Download Software by pressing the icon “Launch Vigil.exe” on the desktop or in the start menu
2. The software will automatically detect the download tool. If no message appears, the software is ready to go (continue to the next step).
If the software is unable to find the download tool, the following message appears:



In this case, go to “Settings” and select “Download tool”. Use the dropdown box to select the download tool manually, and click “Ok”:

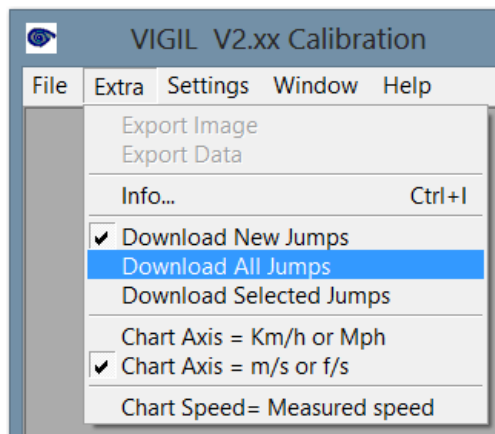


3. Create a new folder on the hard disk
4. Allocate this folder as the new target directory



Double-click the corresponding target folder

5. Choose the type of download in the menu “Extra”:
 - Download New Jumps : To download all new jumps
 - Download All Jumps : To download all jumps in memory
 - Download Selected Jumps : To download the user selected jumps



6. Place the Controller Unit into the IR Download Box (place the plexi screen of the Controller Unit in front of the marked arrow)

Do not remove the Controller Unit from the IR Download Box during process!



Vigil I



Vigil II (+ (*) see remark 1 below)

B. Download action

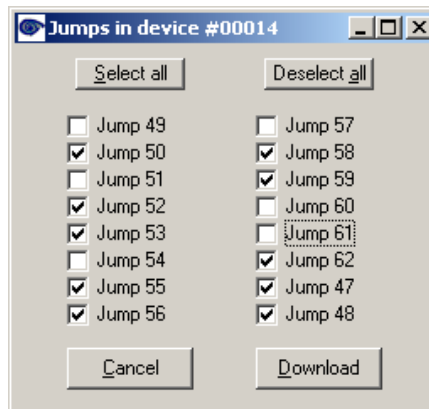
1. Push the button of the Controller Unit for 2 seconds. On the bottom of the Software the “Download Bar” shows the process of the downloading, and the Red Led of the Controller Unit is flashing.

(*) Remark 1:

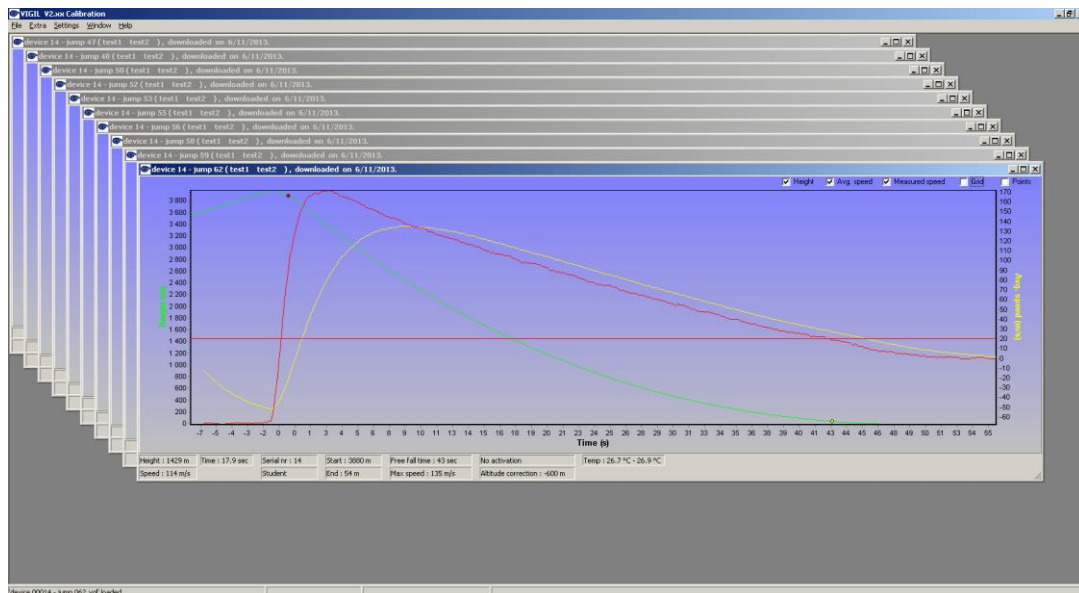
For Vigil II models: if the download does not work, lift the controller $\pm 3\text{mm}$ from the bottom and push the button again. If it still doesn't work, close the software and restart the procedure.

Remark 2:

In case one has chosen the setting “Download Selected Jumps” in menu “Extra”, an new window will appear (see below). The user can now select the jumps of his interest. By clicking “Download” the downloading will begin.

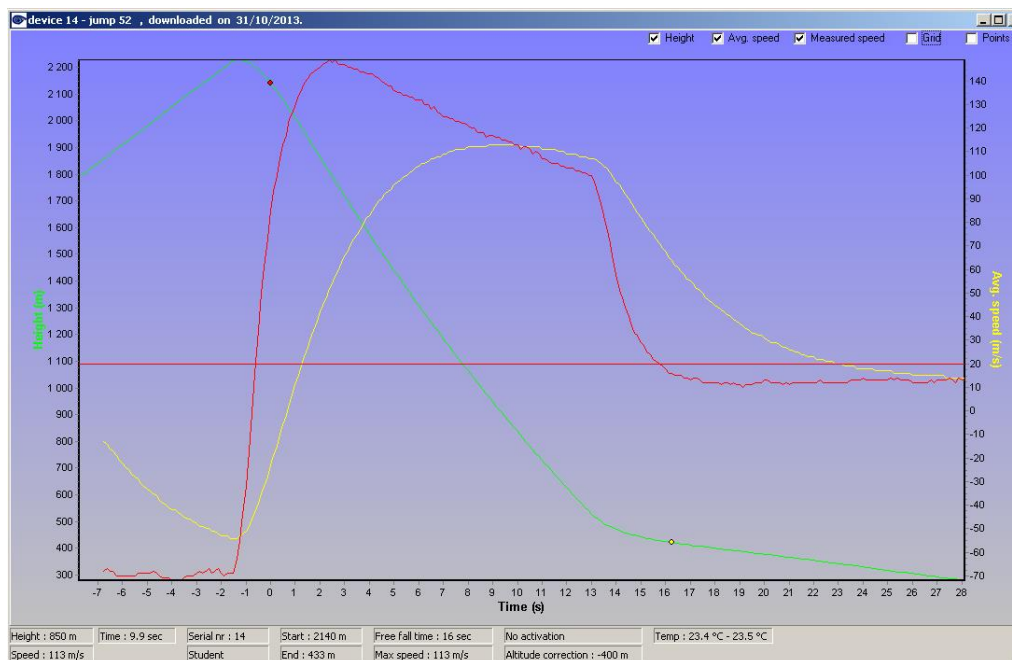


2. When the download is finished, all selected graphs will appear on screen.



4. READING A GRAPH

A. Graph legend



- GREEN line: altitude in meters or feet
- GREEN horizontal line: preset activation altitude linked to the chosen mode
- RED line: speed used by Vigil in km/h, mph, m/s or ft/s
- RED horizontal line: preset activation speed linked to the chosen mode
- YELLOW line: filtered speed, just to give the average falling speed during the freefall as info
- RED dot: detection of the freefall (min. 5/8 sec above activation speed)
- YELLOW dot: detection end of the freefall (min. 5/8 sec under activation speed)
- BLUE dot: activation of the Vigil
- Graphical recording time: starts 7 sec before start of freefall and stops 12 sec after end of freefall

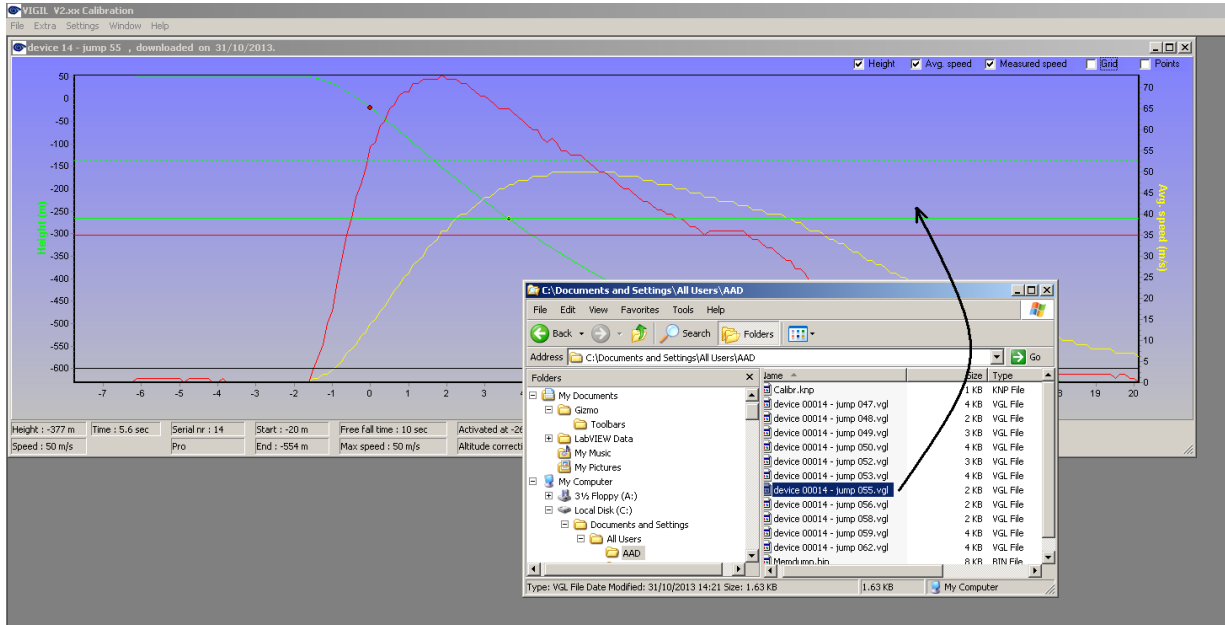
Remark:

The user can choose his own colours for the graph in the menu "Settings", "Screen colours".

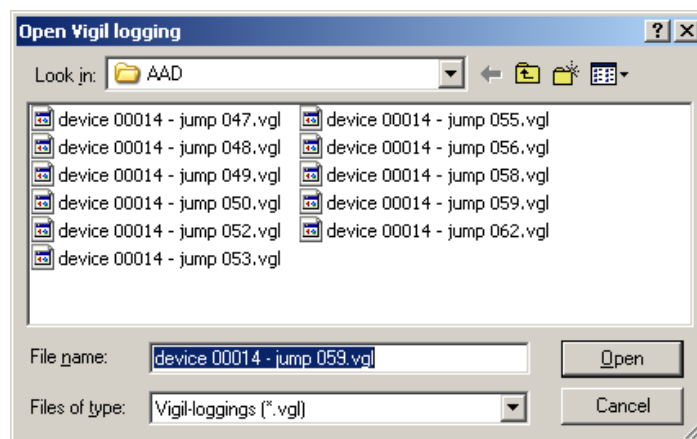
B. Open VGL-files

There are two ways to open *.vgl-files from a certain location on the disk.:

1. Just drag and drop the vgl-file from the source directory into the main software window:



2. Or, select in the menu “File – Open” and browse to the desired vgl-file. Select the file, and click the “Open” button. After this action, the graph appears in the main window.

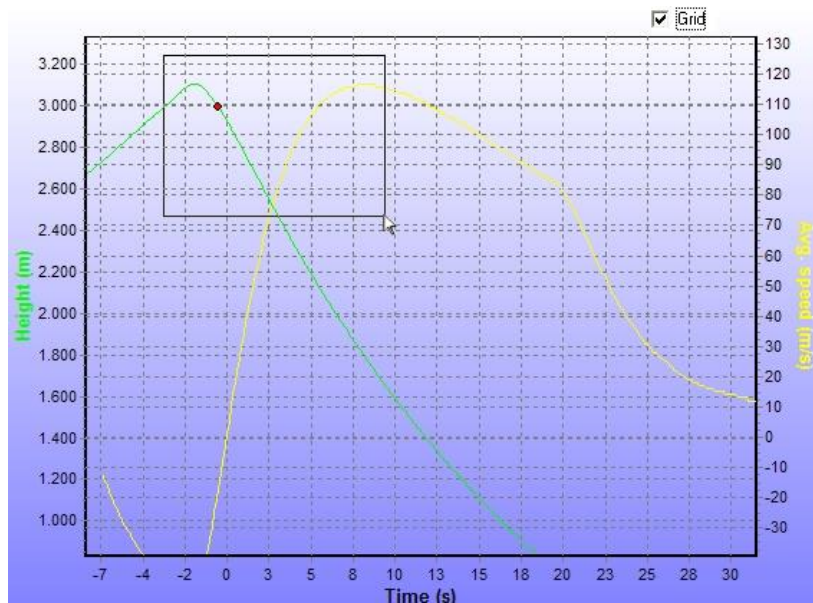


C. Zoom in/out on a graph

Use the mouse wheel to scroll up and down in the graph screen.

The “grid” selection in combination with zooming in gives the possibility to view more detailed information about the graph.

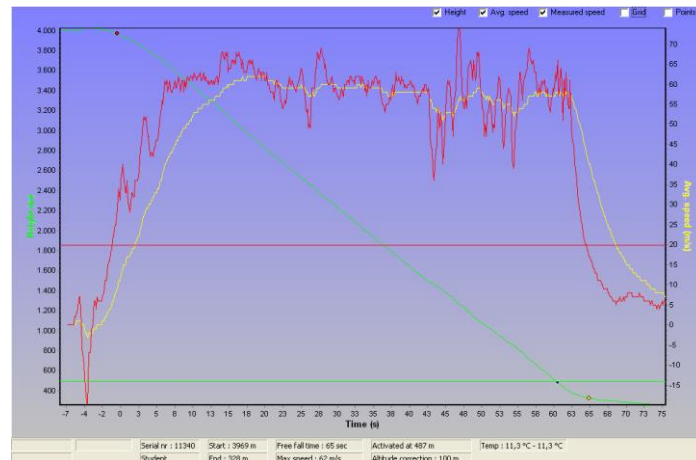
Hold down the left mouse button and move the cursor down and to the right, to define the zoom-in area.



To zoom out, hold down the left mouse button and move the cursor up and to the left.

D. Examples of activation graphs

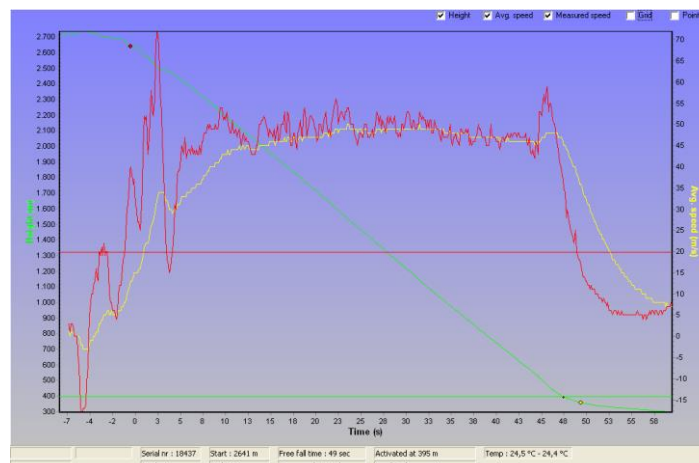
VIGIL II #11340: This graph shows a real Life Save, because the jumper didn't pull the main canopy during freefall.



VIGIL II #10849: This graphs shows another type of Life Save, where the Vigil® activated after the jumper did a Low Cutaway.



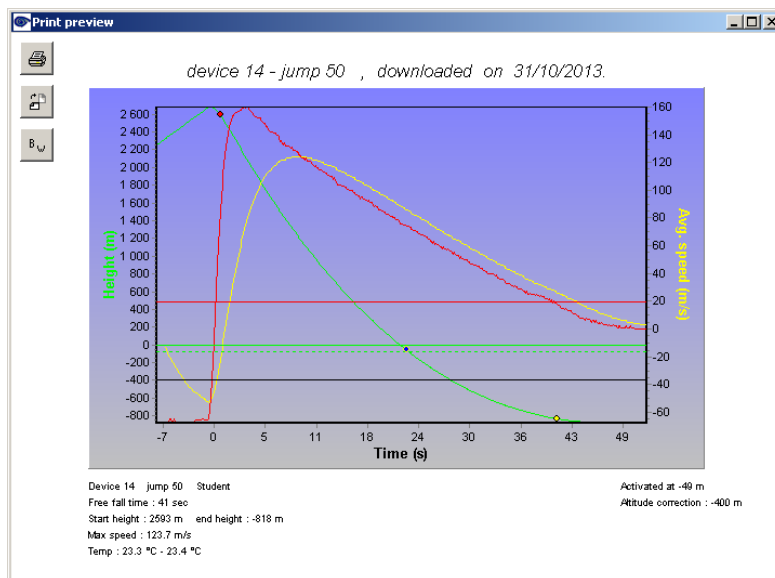
VIGIL II #18437: This graph shows activation due to the low pull of the main canopy.



5. EXTRA FEATURES

A. Print graph

1. Open the graph(s) to be printed
2. Click on the menu "File" and select one of these 3 options:
 - a. "Print Chart" to print the current selected graph
 - b. "Print and close all charts" to print all and close all graphs
 - c. "Print preview", to inspect the graph first, and maybe modify the print options:



(It's always possible to specify the printer, to choose between landscape or portrait and to select colour or black/white)

B. Export graph

Open the graph(s) to be exported, and click on the menu "Extra". Choose between:

- a. Export data (.xls)
- b. Export image (.jpg or .bmp)

C. Close graph(s)

To close a certain graph, select in the menu: "File – Close".

To close all current opened graphs select in the menu: "File – Close all".

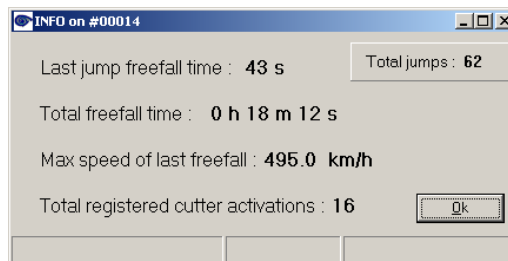
D. Send files by e-mail

Refer to §3A-4 to see where the file has been saved on the computer. Attach the corresponding ".vgl" file(s) in the specified folder to the email. Please do not send the ".jpg", ".xls" or ".bmp" files. For example, filename: 'device 17364 – jump 289.vgl'.

E. Check graph info

To discover more info about a graph:

1. Click on the menu “Extra”
2. Then click “Info”
3. Push the button of the Controller Unit for 2 seconds

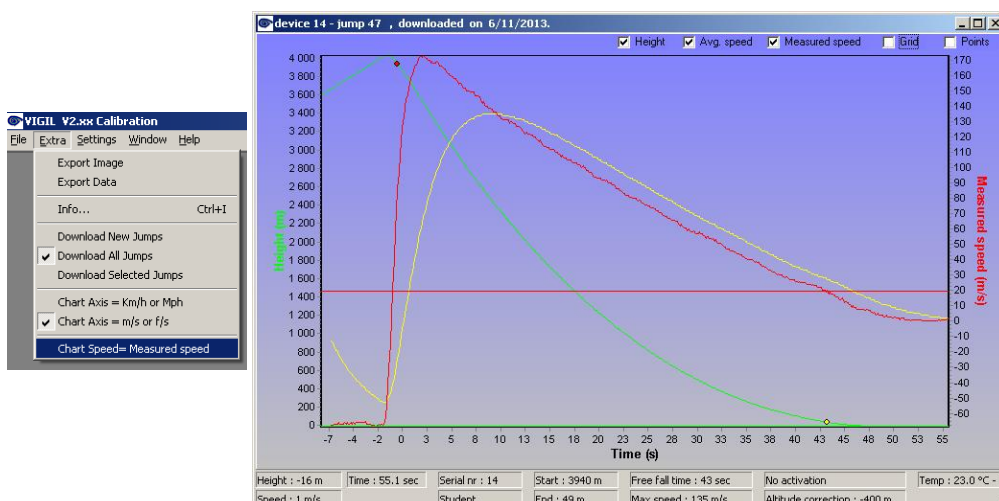


F. Set graph speed

It is possible to modify the scale of the secondary Y-axis (right). By default, the scale of this axis is set to the “Average Speed (m/s)” (see picture below).



By selecting “Chart speed = Measured speed” in the menu “Extra”, this scale changes to “Measured speed (m/s)”:

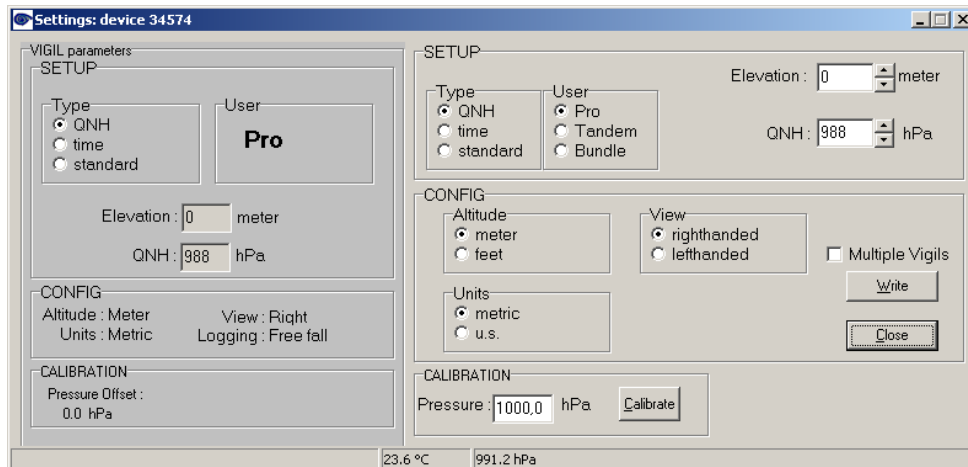


G. Check and/or modify Vigil settings

1. Click on menu "Settings"
2. Click on "Logger settings"
3. Push the button of the Controller Unit for 2 seconds

Remark:

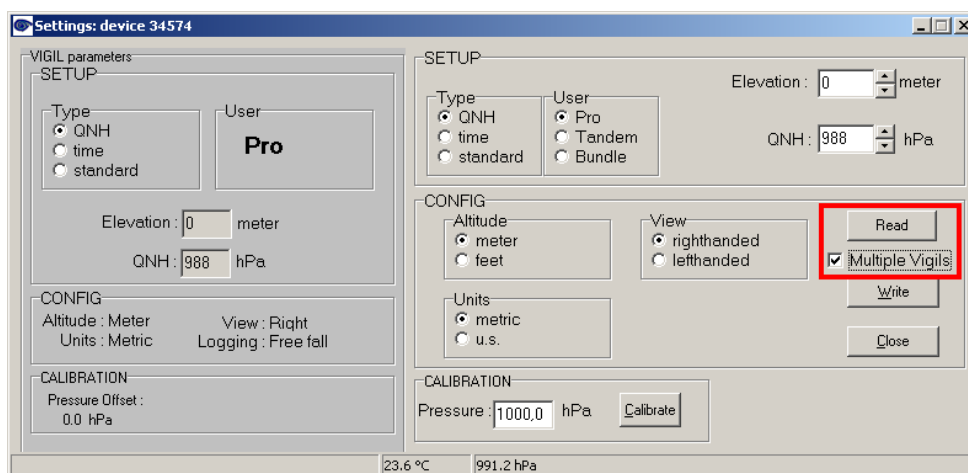
The software is calculating the parameters of the Vigil during a few moments.
After that, the modifications of the Vigil settings can be done.



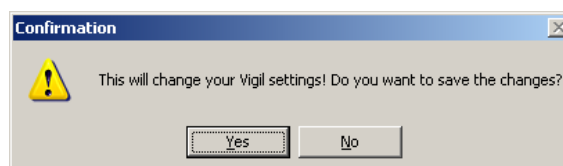
4. The window is divided in 2 parts:
 - a. Left part: current Vigil parameters (read only)
 - b. Right part: user adjustable settings

Remark:

It's also possible to configure multiple Vigils: select the checkbox 'Multiple Vigils'. A 'Read' button appears, for reading the settings of the next Vigil unit.

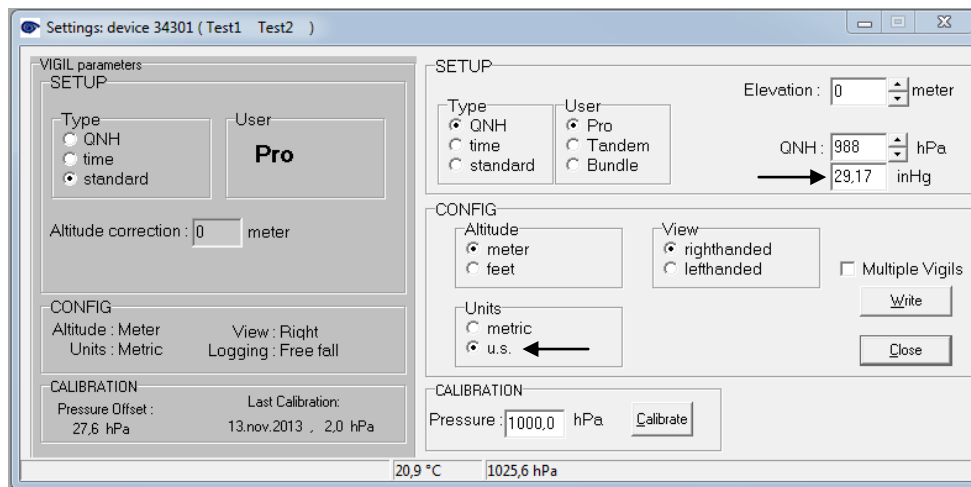


5. When changes are done in the right window part, press 'Write' to save the changes to the Vigil. A confirmation window will appear to save the changes:



Remark:

In the CONFIG-part of the window: if the "Units" field is changed to "u.s.", the "inHg"-field will be visible:

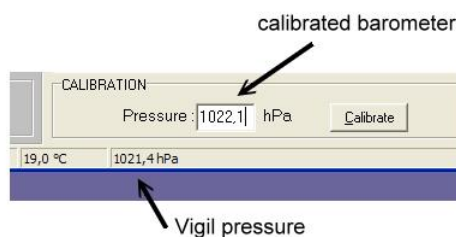


H. Calibration

Fill in the "pressure" field with the given value from a calibrated barometer.

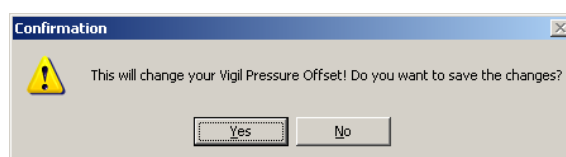
A.A.D. nv/sa recommends that the local atmospheric pressure is checked and compared to the pressure indicated by the Vigil® regularly.

- If the difference is more than **5 hPa**, a new calibration should be performed by a Vigil® qualified expert via the IR download box (and software).
- If the difference is more than **10 hPa**, the Vigil® needs to be re-calibrated. In that case, the Vigil® must be returned to an official certified dealer or to the manufacturer for inspection and re-calibration.



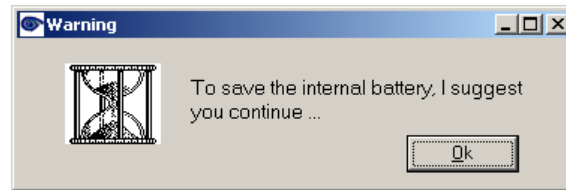
Push 'Calibrate' button and the pressure offset will be recalculated and set in the Vigil.
To verify, go back to the menu and click "Settings".
The Vigil® will show the measured temperature and pressure values again.

A confirmation window will appear to save the changes:

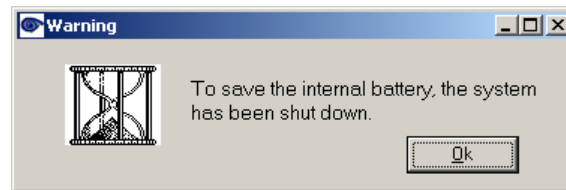


I. Window Timeout

When there is no activity detected in the software, the Vigil will prompt a window to remind the user:



When there's still no activity after a certain time, the Vigil will be shut down and the following window will appear:

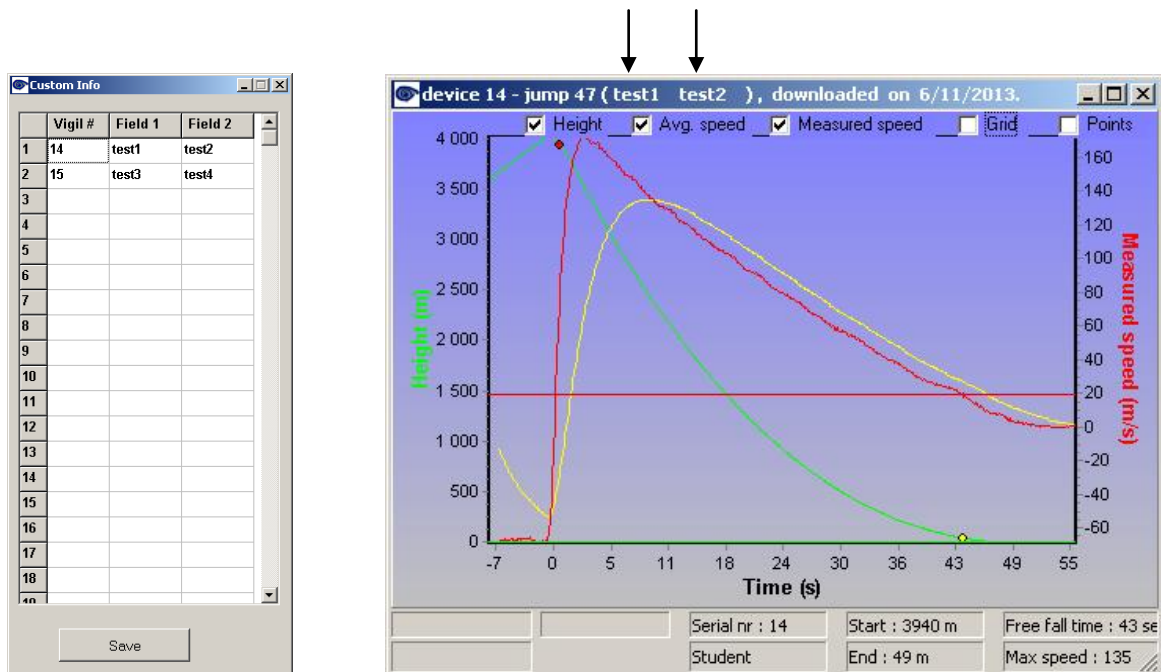


J. Define custom info to graph(s)

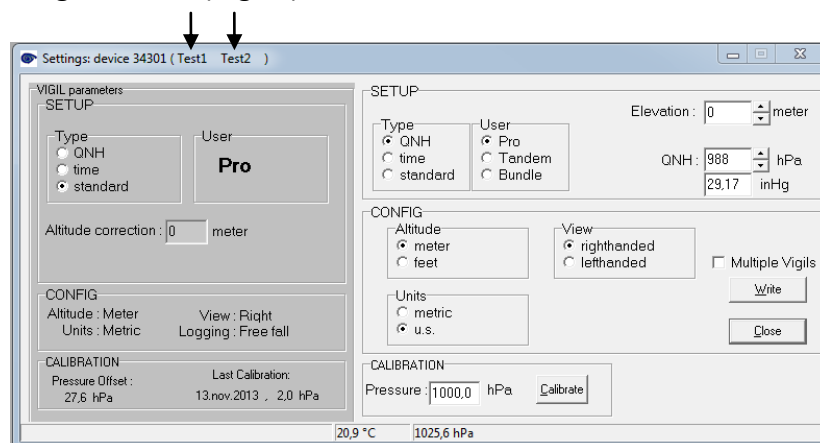
The software (version 2.23 or higher) has the ability to add two extra “comment” fields to the graph for each Vigil.

Example:

1. First open the “Custom Info” window from the menu “Settings”
2. Fill in the Vigil’s serial number (Vigil #), this field might already be filled if the Vigil has been connected to the software before
3. Fill in the desired fields (in the example below the two extra comment fields of both Vigil’s can now be filled in. In this case for Vigil #14 “test1” and “test2”, for Vigil #15 “test 3” and “test4”)
4. Press “Save” to save the settings
5. Now read the graph(s) from one of the Vigil’s in the “Custom Info” list
6. The two comment fields are added to every graph’s title bar for that specific Vigil number (Vigil #):



7. The two comment fields are also added to the title bar of the “Logger Settings” window for that specific Vigil number (Vigil #):



6. IMPORTANT

A. *What to do after activation*

When an activation has occurred, it's important that we receive the downloaded graph files from the unit (*.vgl file) for a preliminary analysis (please do not send us image files like *.JPEG, *.bmp or data files like *.xls). The *.vgl files can be sent by e-mail to edwin@vigil.aero or candace@vigil.aero. All activations will be analyzed and a file containing all the information will be opened. If the activation can be explained from the received information, it will not be necessary to send the unit back to AAD SA. A final report, with the relevant graphs, will be sent to the customer with the explanation of the reasons of the activation and the further actions involved.

If you do not have access to an IR reader, please contact AAD SA (Brussels, Belgium) or Vigil America for the nearest location. It may be necessary to send the unit back to AAD SA (Brussels, Belgium) or Vigil America (Deland, Florida) to download the data.

B. *Possible reasons for an activation*

Life saving: Can only be approved by AAD Brussels based on the received data, info, graphs, and a completed life saving report. This report, can be filled out either by hand (see pdf-file at: http://www.vigil.aero/wp-content/uploads/Life_Saving_Report.pdf or at <http://www.vigil.aero/life-saving-report>)

If the activation is considered a true life save, the cutter replacement will be free of charge.

Others: Different situations can lead to an activation. Each case will be analyzed and further action will depend on the result of the analysis and reports.
Possible causes for an activation are:

- Low pull.
- Low cutaway.
- Airborne status (see Info bulletin dated May 2009).
- Hook turn (too much speed under canopy).
- Wrong use (wrong mode or altitude correction, unit not switched on at the ground at take-off zone).
- Plane descending too fast.
- Slow low opening of the main canopy.
- Depressurized cabin.
- During ground transport (car, closed bags, etc.) if not switched off.
- Technical problem (failure of an electronic sub-part).
- Possible misfire.

7. CONTACT INFORMATION



The Vigil® Bidirectional Download Tool
has been designed to satisfy your expectations.

Any problems or questions? Please do not hesitate to contact us:

A.A.D. nv/sa
Advanced Aerospace Designs
Bld. A. Reyers, 193
B-1030 Brussels – BELGIUM

T: +32 (0)2 732 65 52 – F: +32 (0)2 736 06 27
info@vigil.aero – www.vigil.aero

VIGIL America
1400 Flightline Blvd. Suite C
32724 Deland, FL
UNITED STATES of AMERICA

T: 001 386 736 84 64 – F: 001 386 736 84 68
candace@vigil.aero – www.vigil.aero