



Download Software 2.35
For Vigil® civil II, 2+, Cuatro
& Military II, II+, II+c
-
User's Manual

The Vigil® is endorsed by:

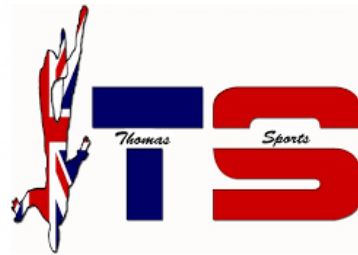


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1 INTRODUCTION

Thank you for purchasing the IR Download Box and the Vigil® Download Software 2.35, an accessory created by A.A.D. n.v./s.a. This manual is valid for every Vigil® Download Software version from 2.35 or higher.

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 Paragraph 5.5).

The IR Download Box of your "Guardian Angel" is easy to install on all computers on the market (with Windows 10, 8, 7, Vista, XP, ... as well as with MAC OS 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.

f



REMEMBER:

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

2 INSTALLATION ON THE PC

2.1 Software

The Vigil® Download Software 2.35 can be installed on all computers that use Windows 10, 8, 7, XP, or MAC OS while using a Cross platform Virtual Software.

2.1.1 [Run the setup file.](#)

Run the setup.exe file you received with email, USB stick or CD.

2.1.1.1 [CD](#)

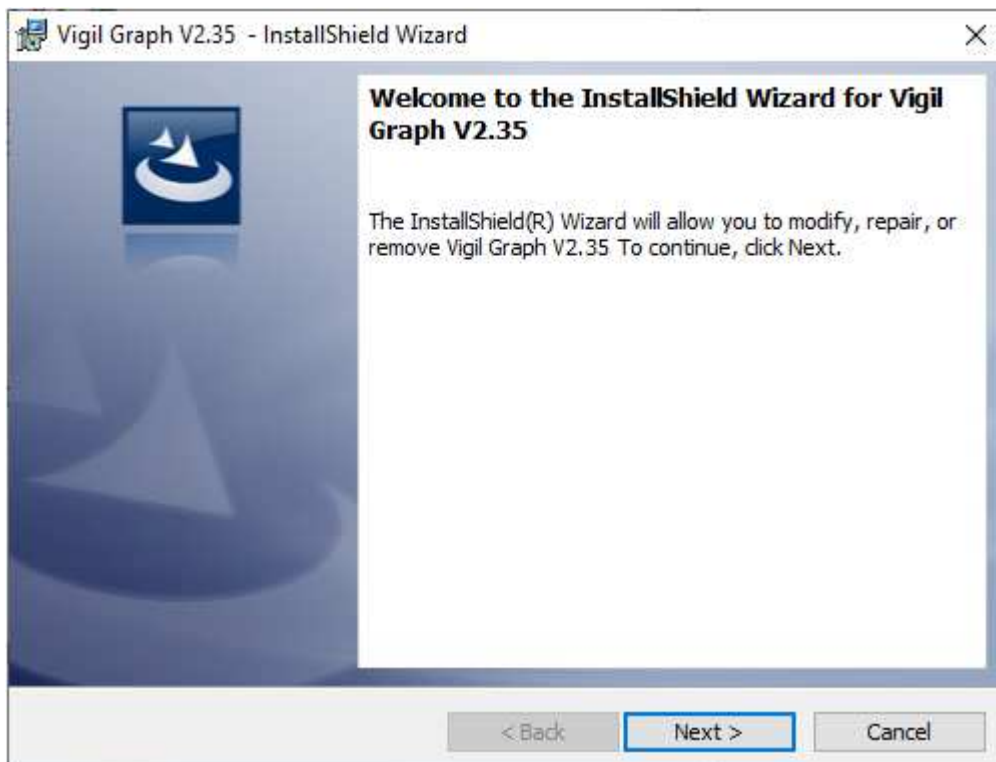
Insert the CD into the appropriate drive.
Wait for the CD to start automatically.

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.

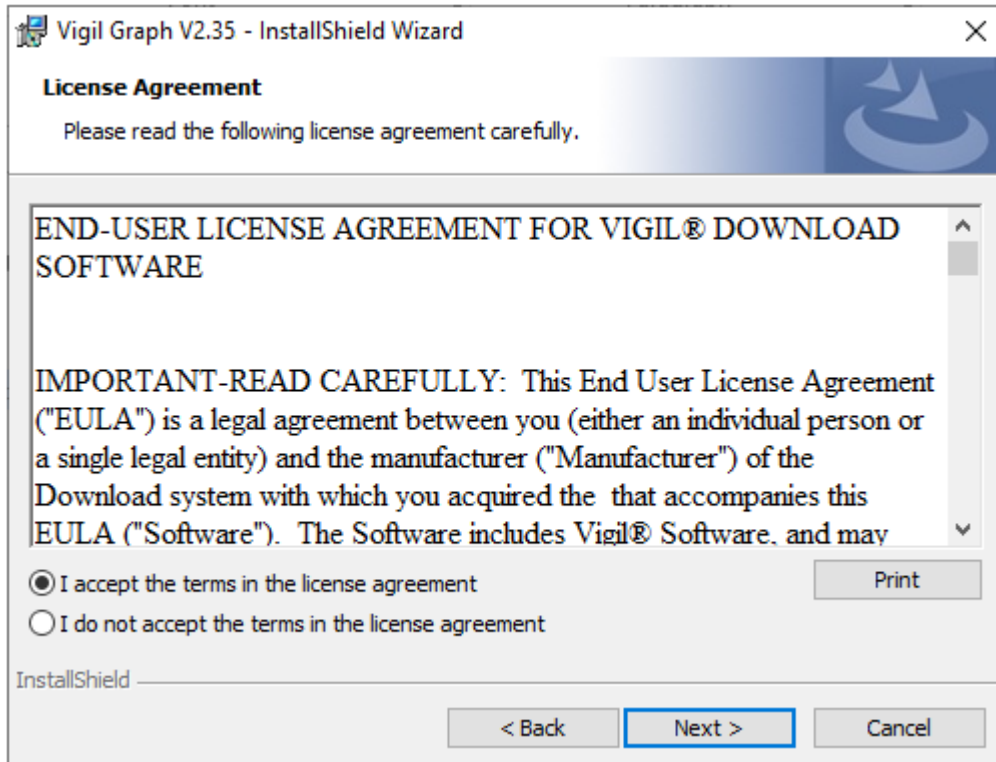
Equivalent procedure if via a USB stick.

2.1.1.2 [Other](#)

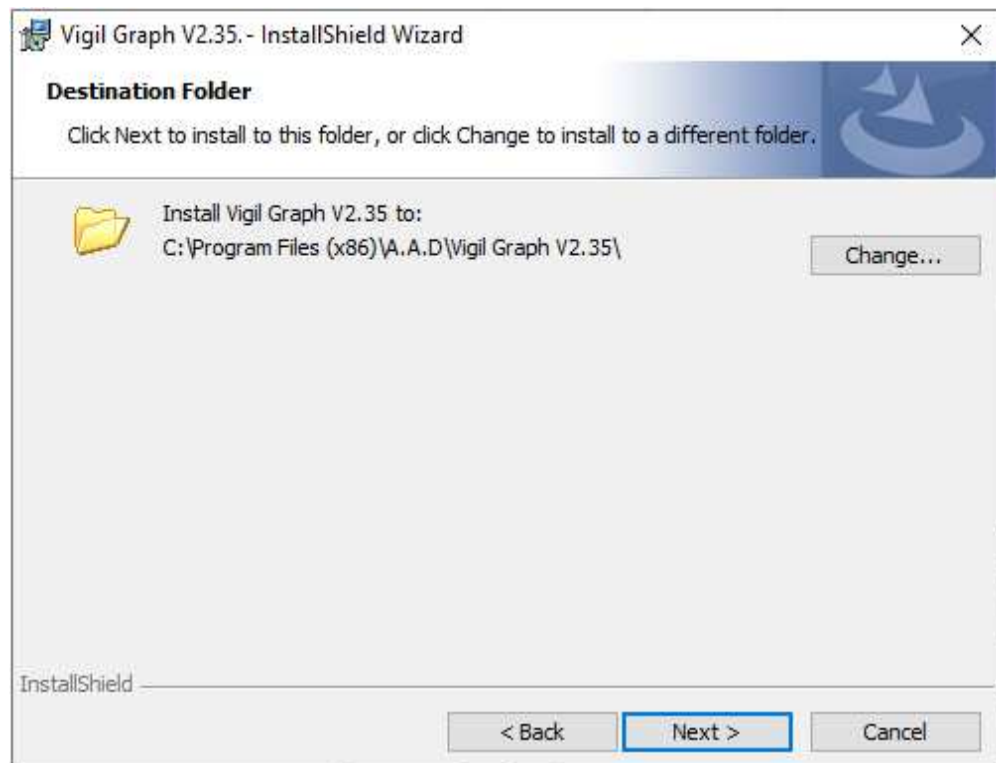
When you received an email the ‘setup.exe’ and ‘CDM v2.12.06 WHQL Certified.exe’ are placed in a zip file
The Setup of the installation is starting:



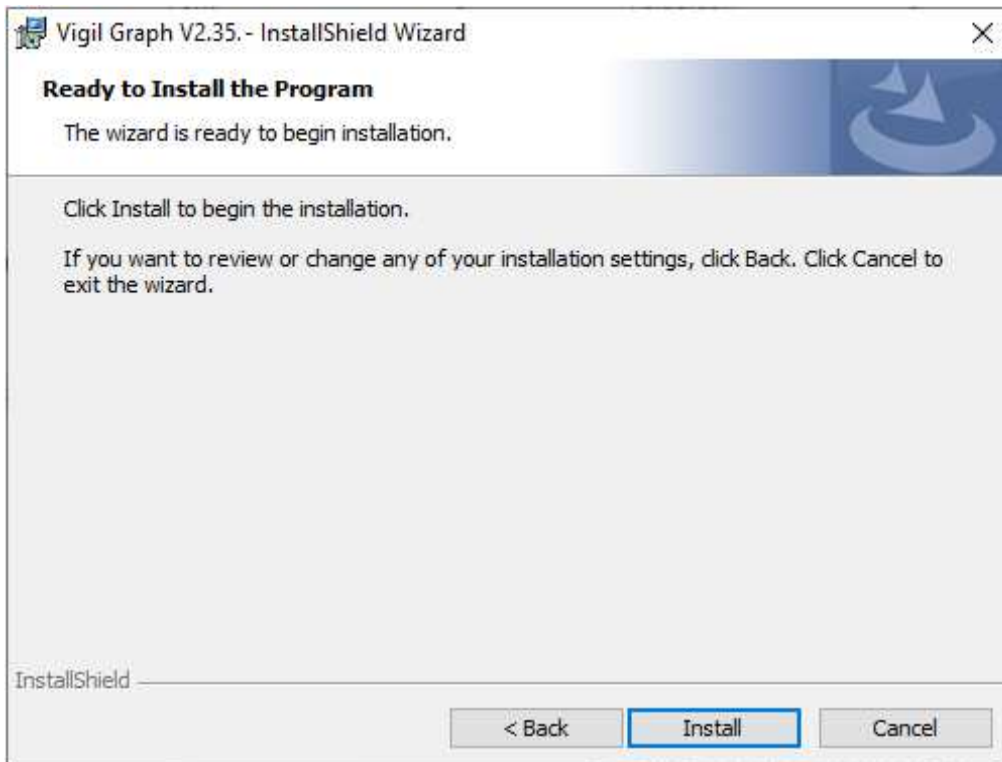
1. Click "Next".



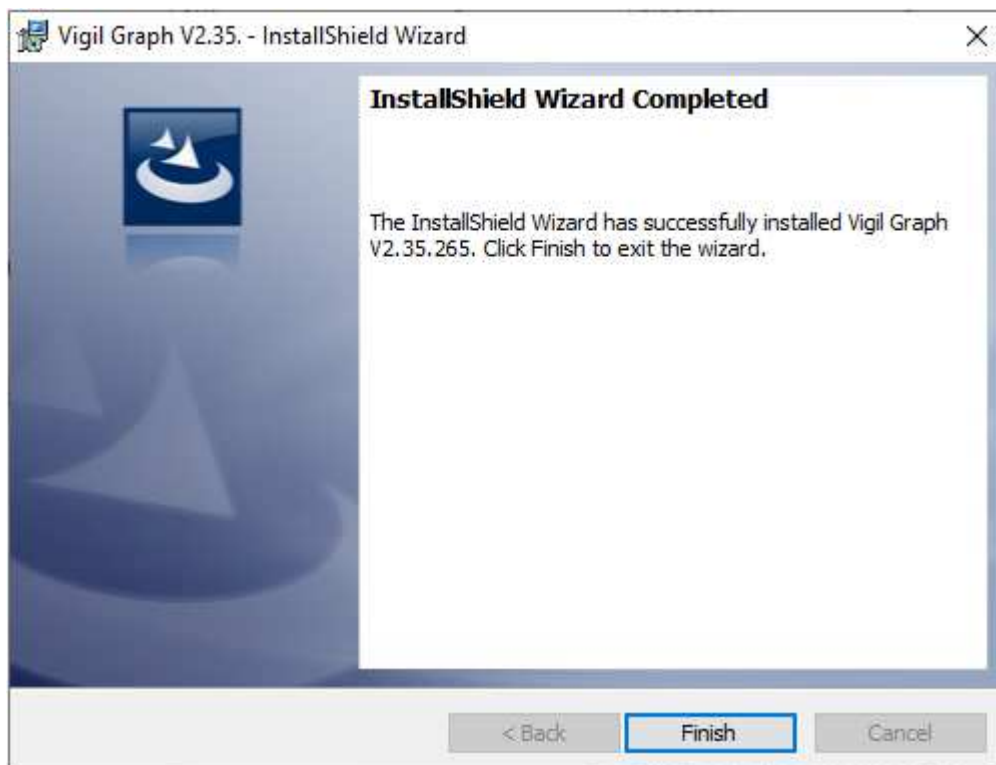
2. Select "I accept the terms in the license agreement" and click "Next" to continue.



3. Click on the "Change" button if you want to install to a different folder or "Next" to install.



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



5. Click "Finish" to complete the Setup.

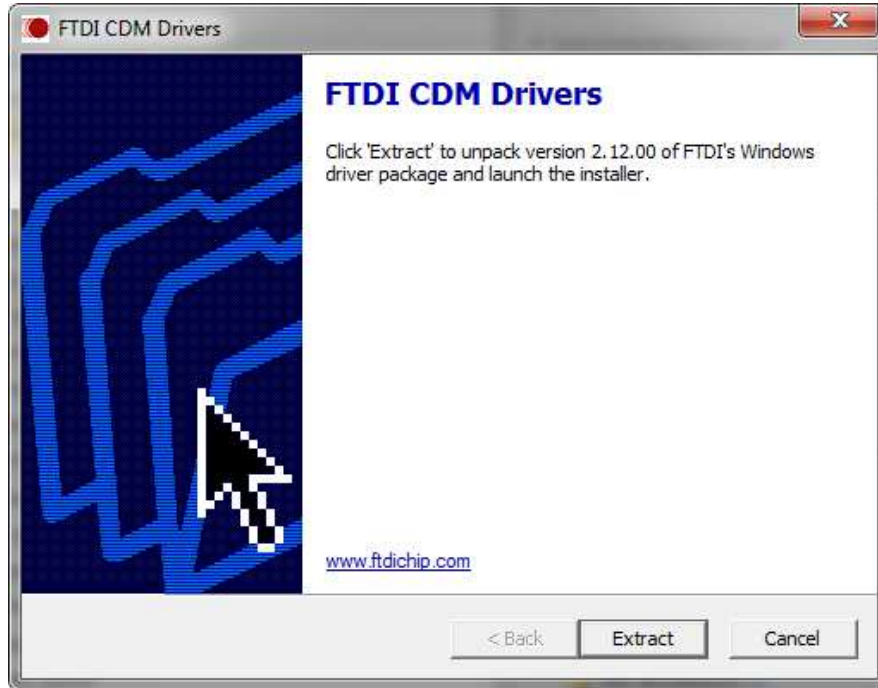
2.2 USB IR box

Usually windows will automatically find and install the driver if you are connected to a network.

However, on the same location as the setup.exe file, you can find “CDM v2.12.06 WHQL Certified.exe” run this file to install the USB drivers for the IR box.

2.2.1 Install CDM v2.12.06 WHQL driver

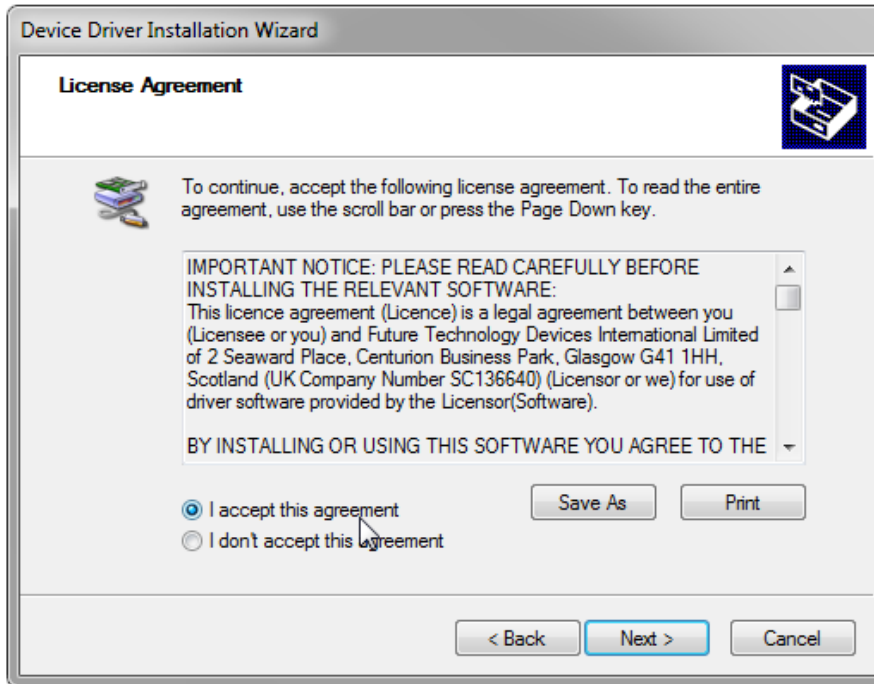
1. Run “CDM v2.12.06 WHQL Certified.exe” you received with email, USB stick or CD. The FTDI's Windows Driver package installation screen will appear:



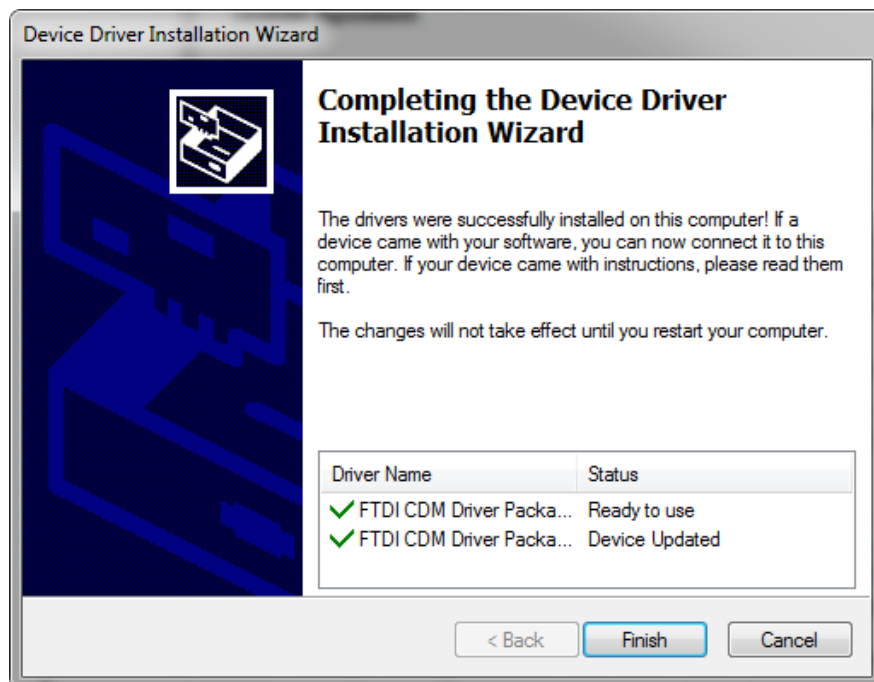
2. Press “Extract”.



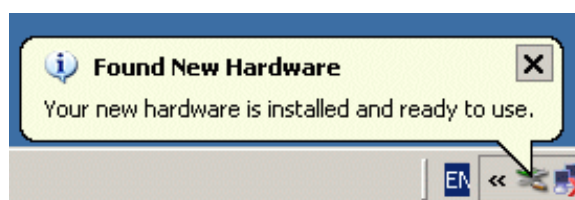
3. Press “Next”.



4. Select "I accept this agreement" and click "Next" to continue.



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:



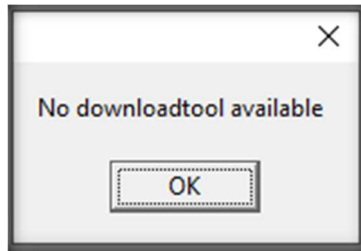
8. Launch the Vigil® Download Software

3 DOWNLOADING

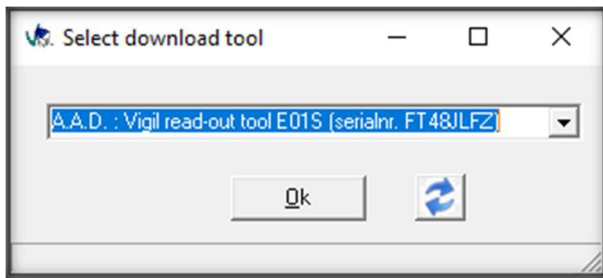
3.1 Software settings

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).

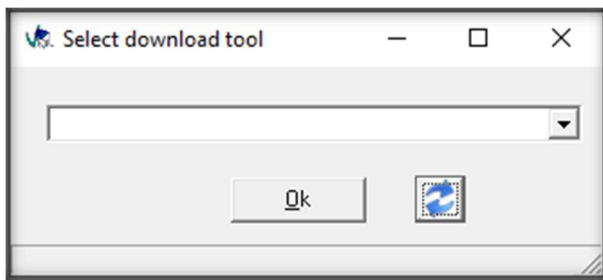
If the software is unable to find the download tool, the following message appears:



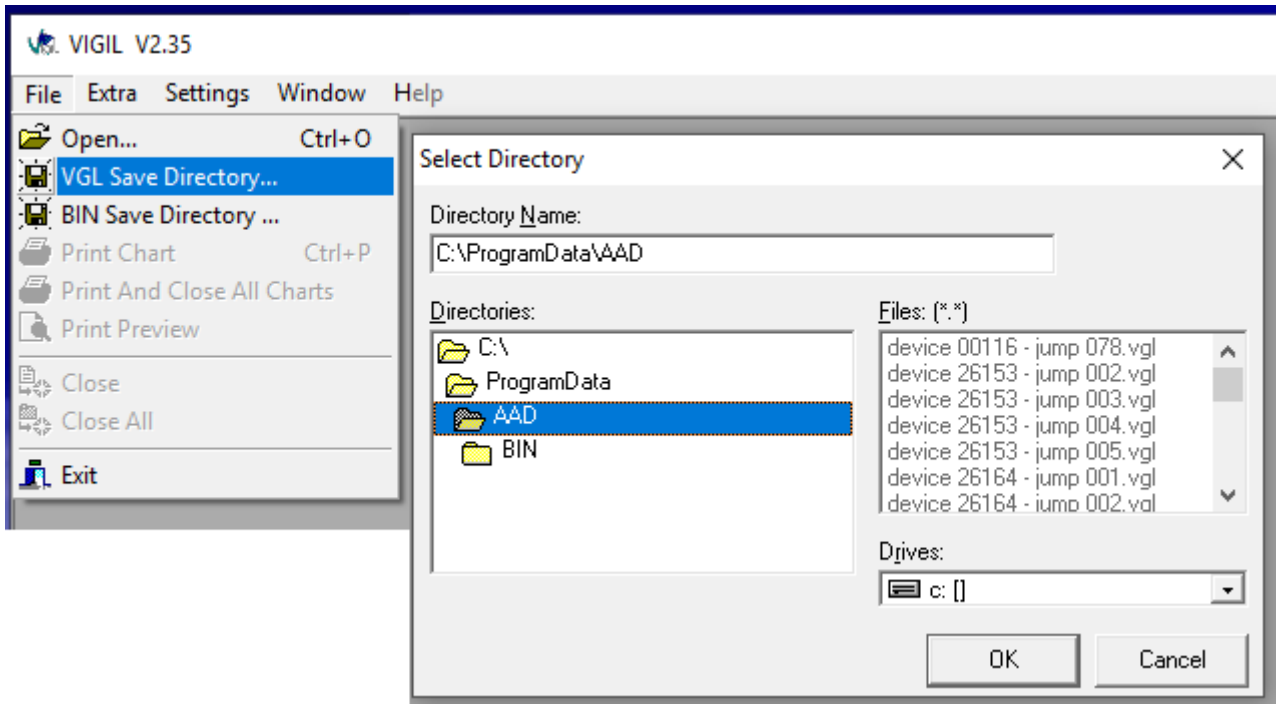
In this case, go to “Settings” and select “Download tool”. Use the dropdown box to select the download tool manually, and click “Ok”:



Or when the selection box is empty push the refresh button to find the IR box.

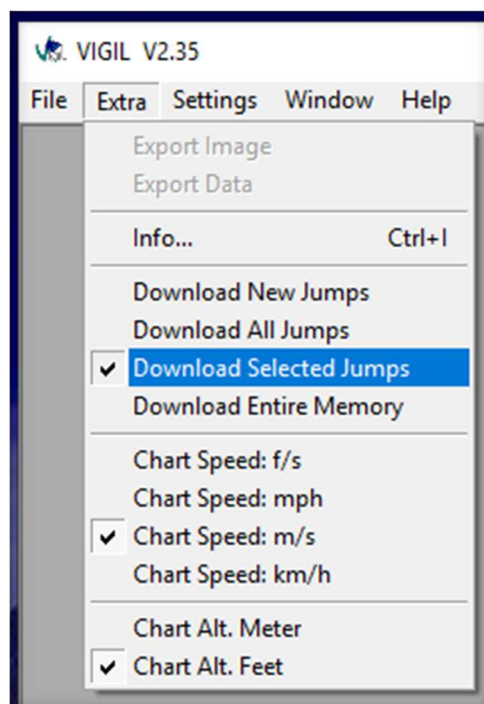


3. Create a new folder on the hard disk.
4. Allocate this folder as the new target directory.



5. Choose the type of download in the menu “Extra”:

- Download New Jumps: will download only the new extra jumps compared to the ones already downloaded previously from the same Vigil®.
- Download All Jumps: Will download all what’s in the memory.
- Download Selected Jumps: Will download after you did a selection (See remark 1 on page 12).
- Download Entire Memory: Will download the total eeprom content. After the download you will see all the jumps, and a file with extension ‘.bin’ is generated.



- 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!



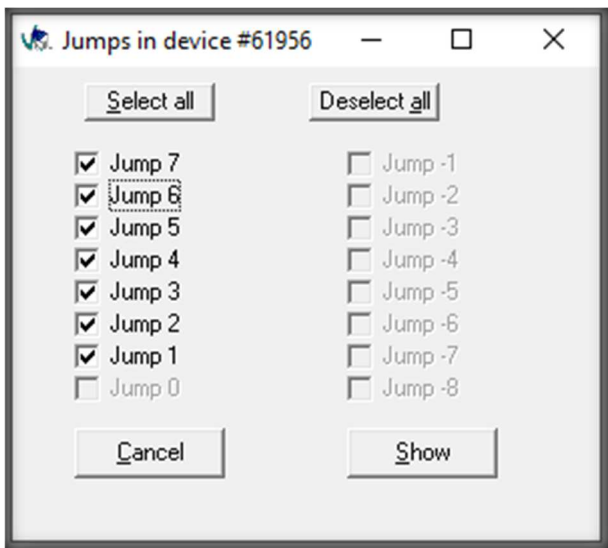
New IR BOX 2017

3.2 Download action

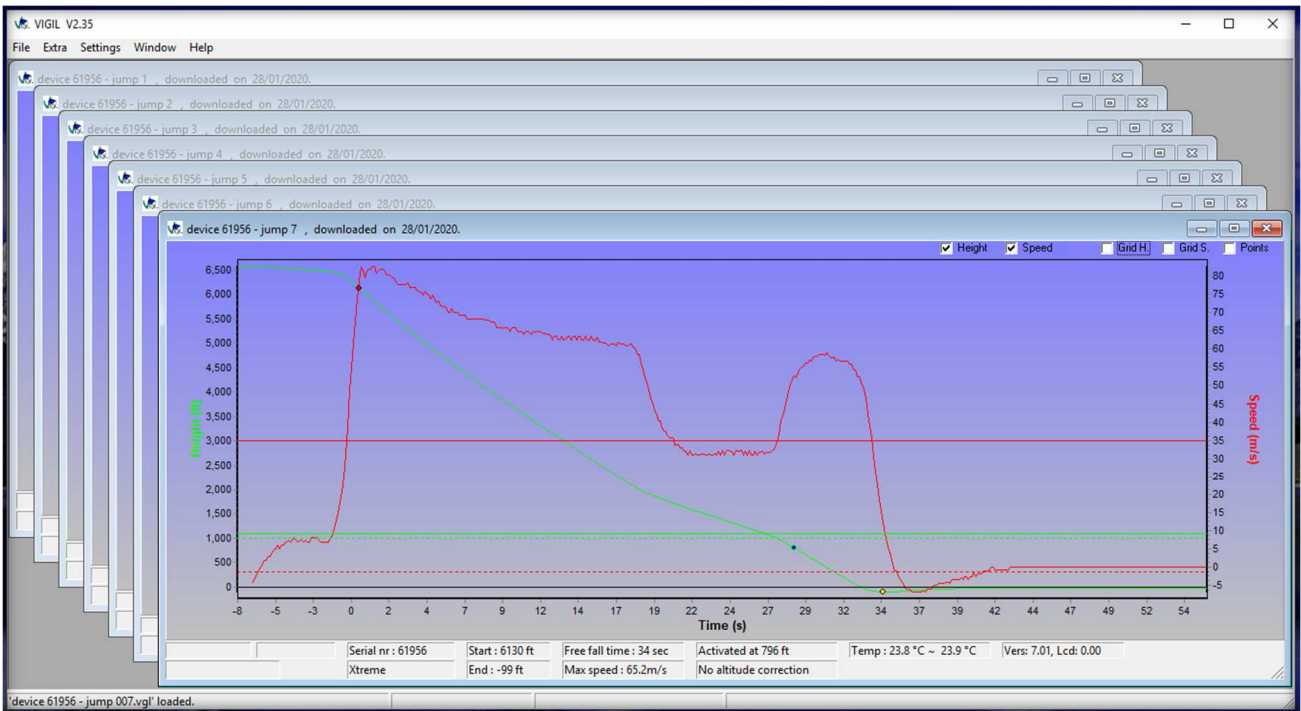
Push the button of the Controller Unit for 2 seconds. On the bottom of the Software the “Download Bar” shows the download progress. When the communication goes well the bar is green, yellow means that a retry is send and red that the communication went wrong. During the communication the red Led of the Controller Unit is flashing.

() Remark 1:*

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

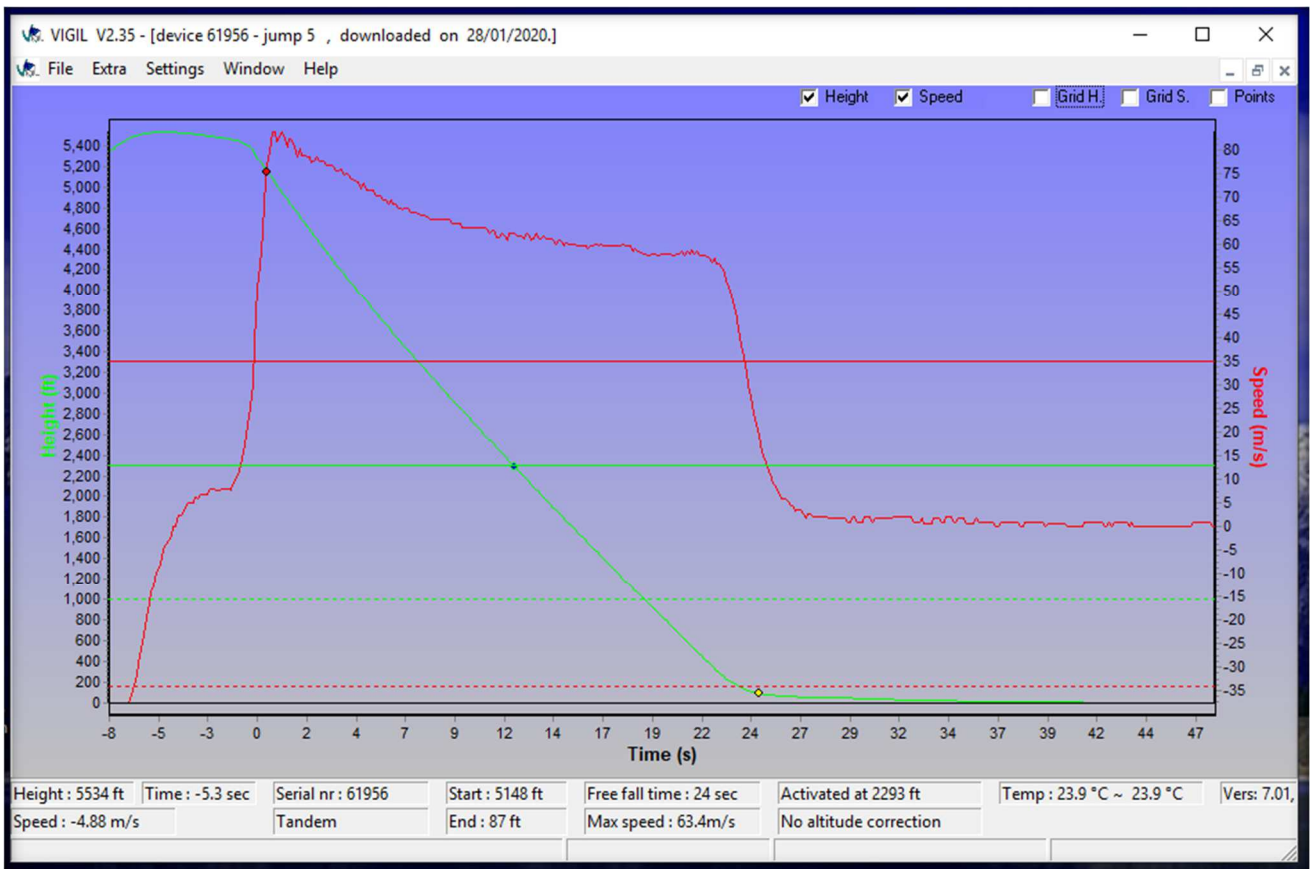


When the download is finished, all selected graphs will appear on the screen:



4 READING A GRAPH

4.1 Graph legend

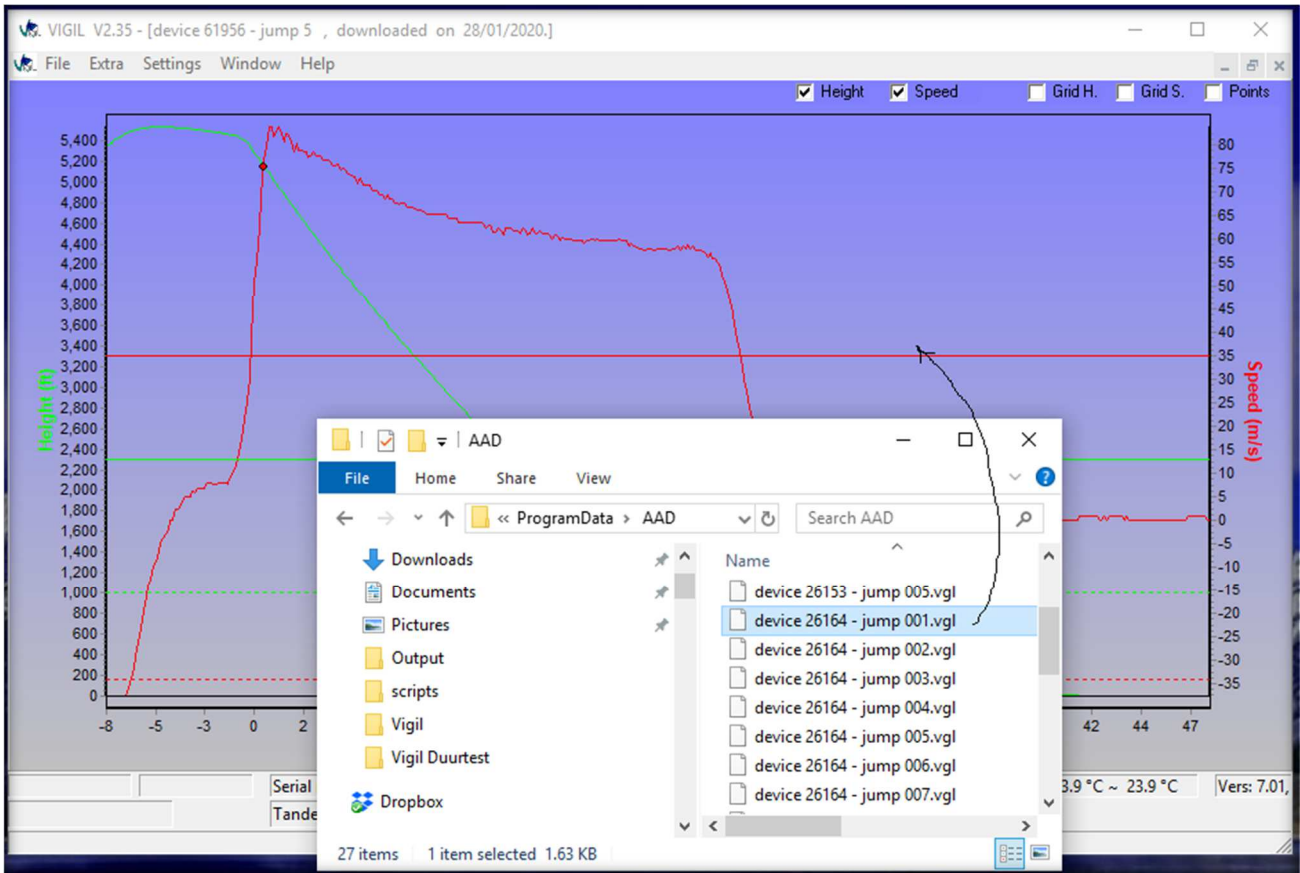


- **GREEN line:** altitude in meters or feet.
- **GREEN horizontal line:** preset activation altitude linked to the chosen mode.
- **RED line:** speed used by Vigil® in km/h, mph, m/s or ft/s.
- **RED horizontal line:** preset activation speed linked to the chosen mode.
- **RED dot ●:** detection of 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 (For the Vigil 2+ & cuatro it is 24 sec instead of 12 sec).
- **GREEN horizontal dotted line:** altitude when the Vigil becomes armed.
- **RED horizontal dotted line:** altitude when the Vigil will not be activate anymore.

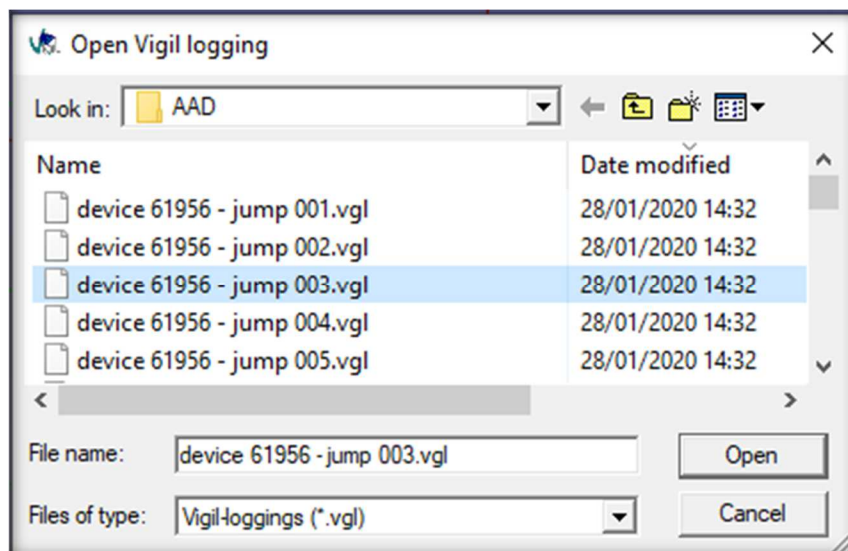
4.2 Open VGL-files

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.

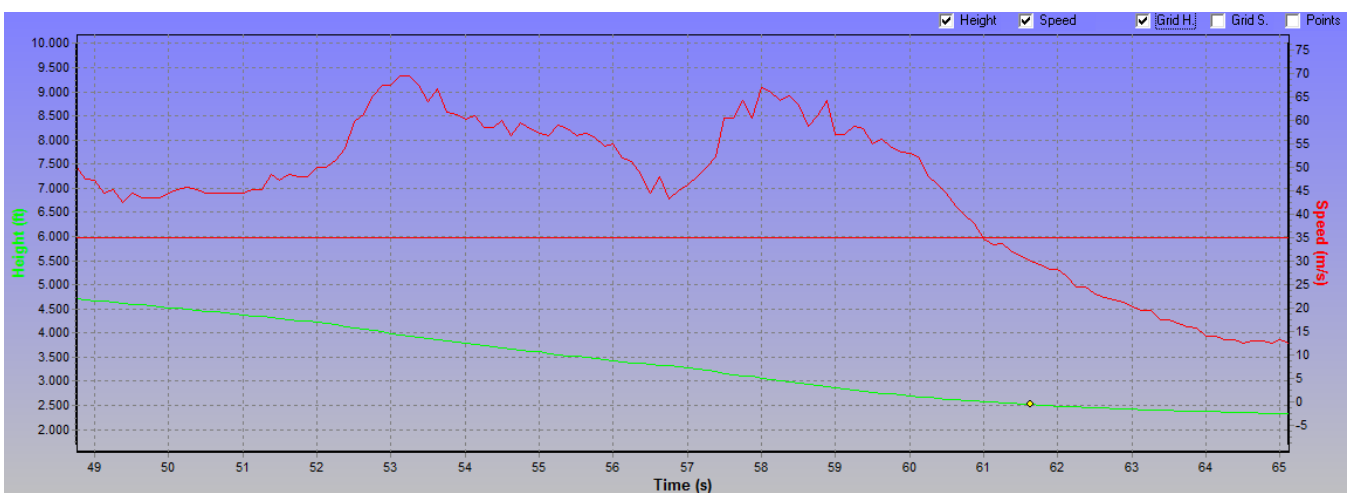
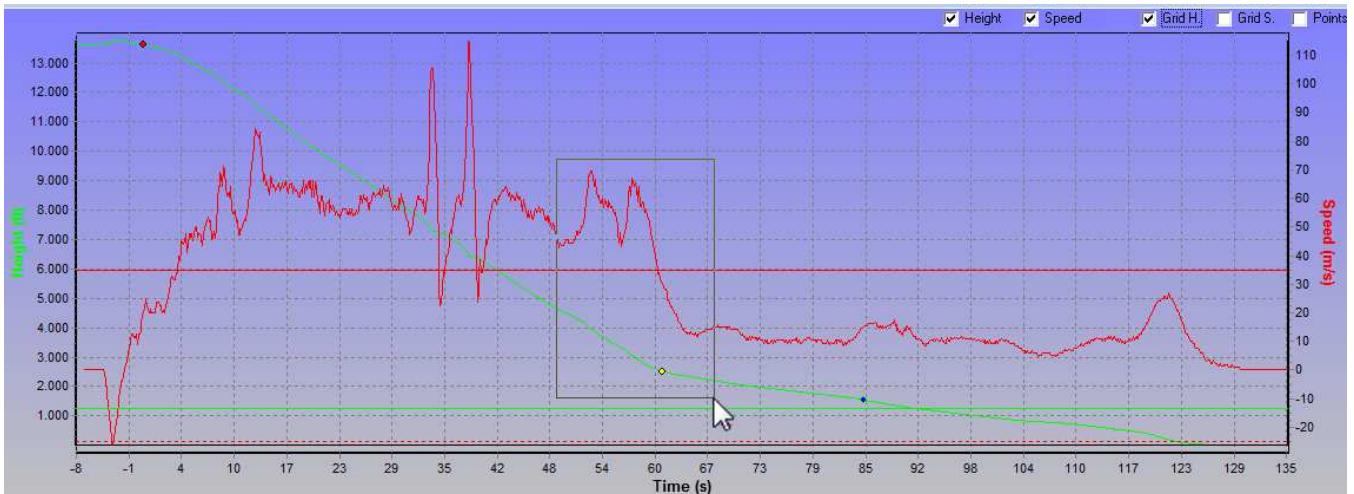


4.3 Zoom in/out on a graph

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

The “Grid H.” (Height) or “Grid S.” (Speed) 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.



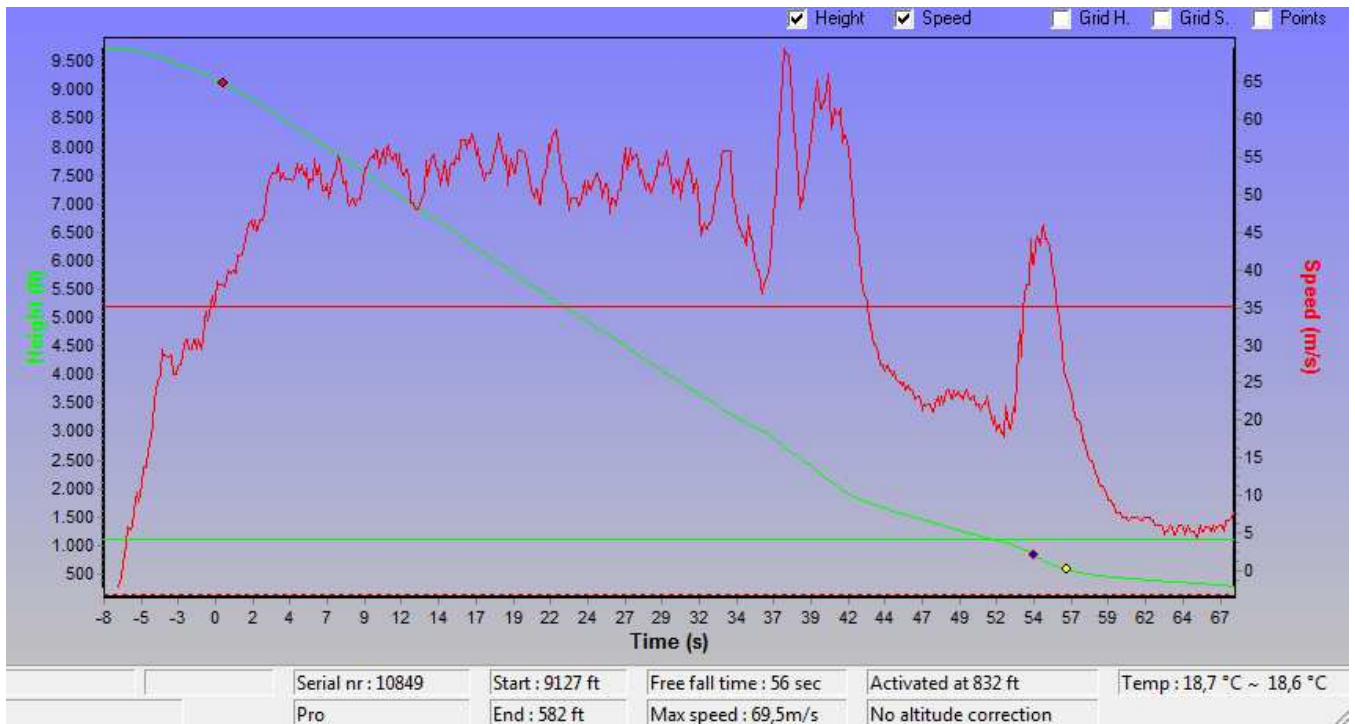
To zoom out, hold down the left mouse button and move the cursor up and to the left.

4.4 Examples of activation graphs

VIGIL II #11340: This graph shows a real Life Save, because the jumper didn't pull to release 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 main Cutaway.



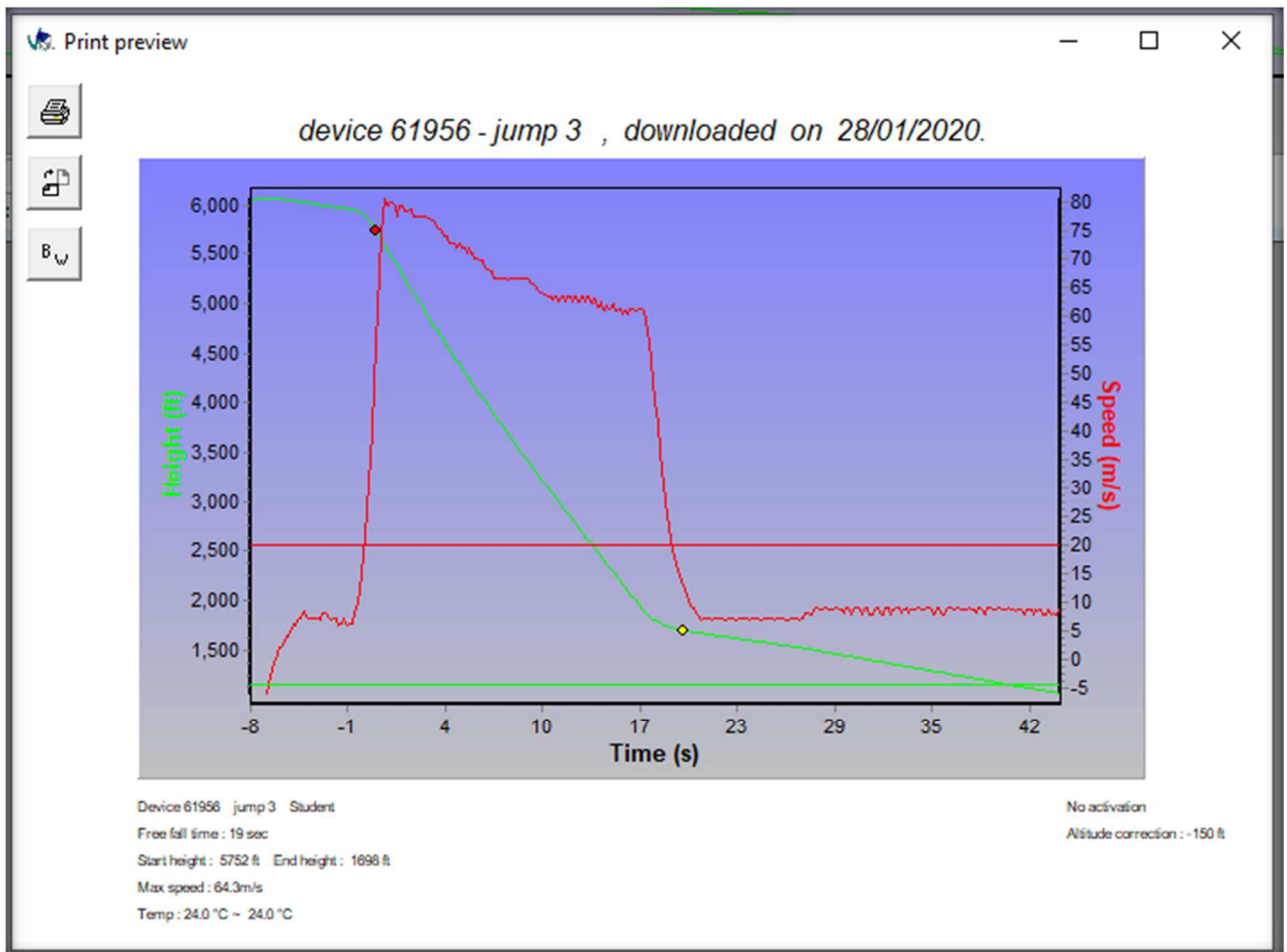
VIGIL II #18437: This graph shows activation due to the low pull of the main canopy.



5 EXTRA FEATURES

5.1 Print out of graph

1. Open the graph(s) to be printed
2. Click on the menu “File” and select one of these 3 options:
 - “Print Chart” to print the current selected graph
 - “Print and close all charts” to print all and close all graphs
 - “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 color or black/white).

5.2 Export graph

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

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

5.3 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”.

5.4 Send files by e-mail

Refer to paragraph 3.1.4 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.

Example of filename: ‘device 17364 – jump 289.vgl’.

5.5 Check graph info

To discover more info about a graph:

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

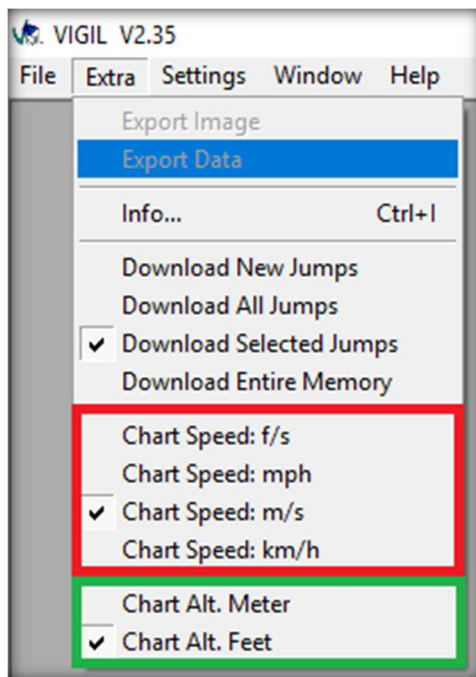


5.6 Set graph speed

It is possible to modify the scale of the Y-axes. By default, the scale of this axes is set to the “Height (ft)” ((left) and “Speed (m/s)” (right) (see picture below).



In the menu “Extra” you can choose the graph units.



For the speed chart you can select f/s, mph, m/s or km/h.

For the altitude you can select meter or feet.

The graph unit will change to the new selection, after you select the graph with a mouse click.

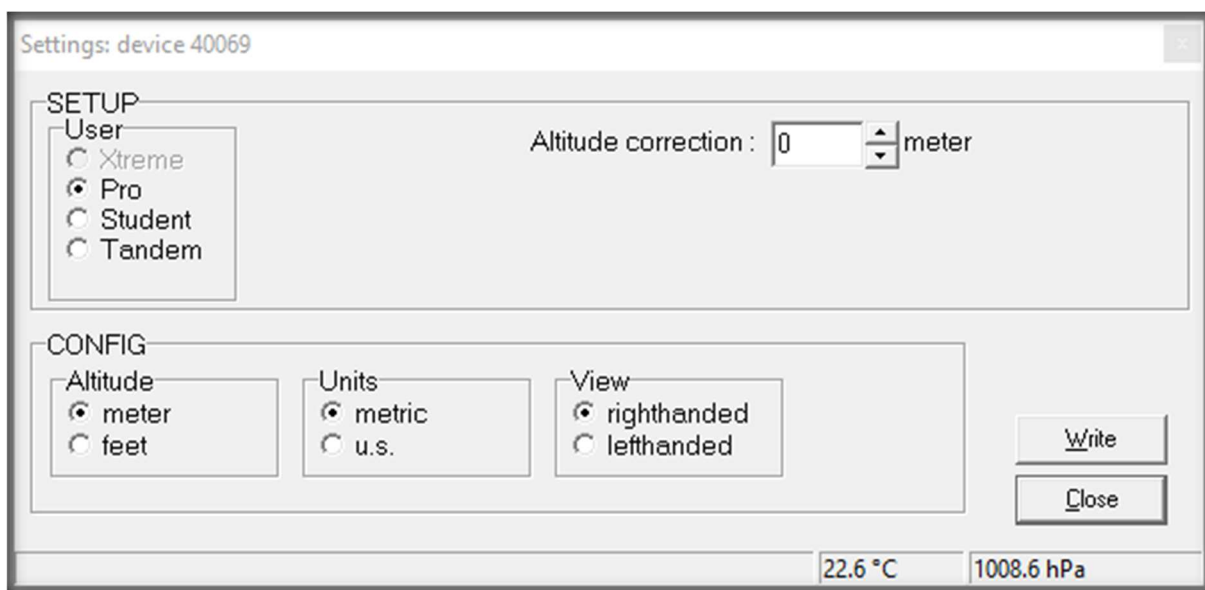
5.7 Check and/or modify Vigil® settings

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

5.7.1 Settings form for the Civil Vigils:

Remark:

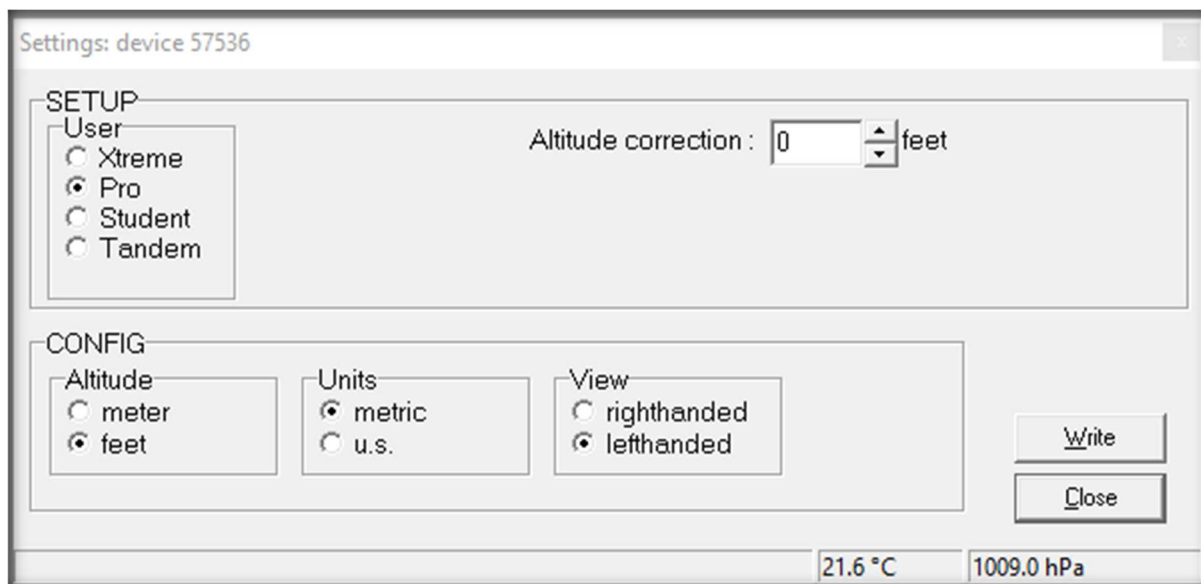
The software is calculating the parameters of the Vigil® during a few moments.
After that, the modifications of the Vigil® settings can be done.



5.7.2 Settings form for the Civil Cuatro (4 Mode) Vigils:

Remark:

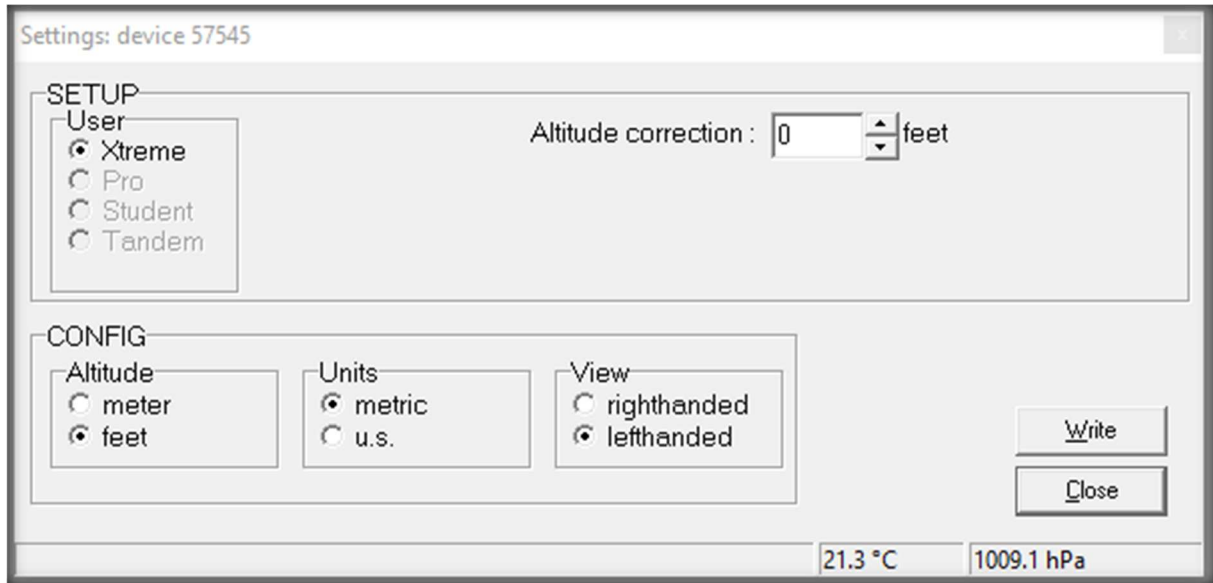
The software is calculating the parameters of the Vigil® during a few moments.
After that, the modifications of the Vigil® settings can be done.



5.7.3 Settings form for the Xtreme Vigils.

Remark:

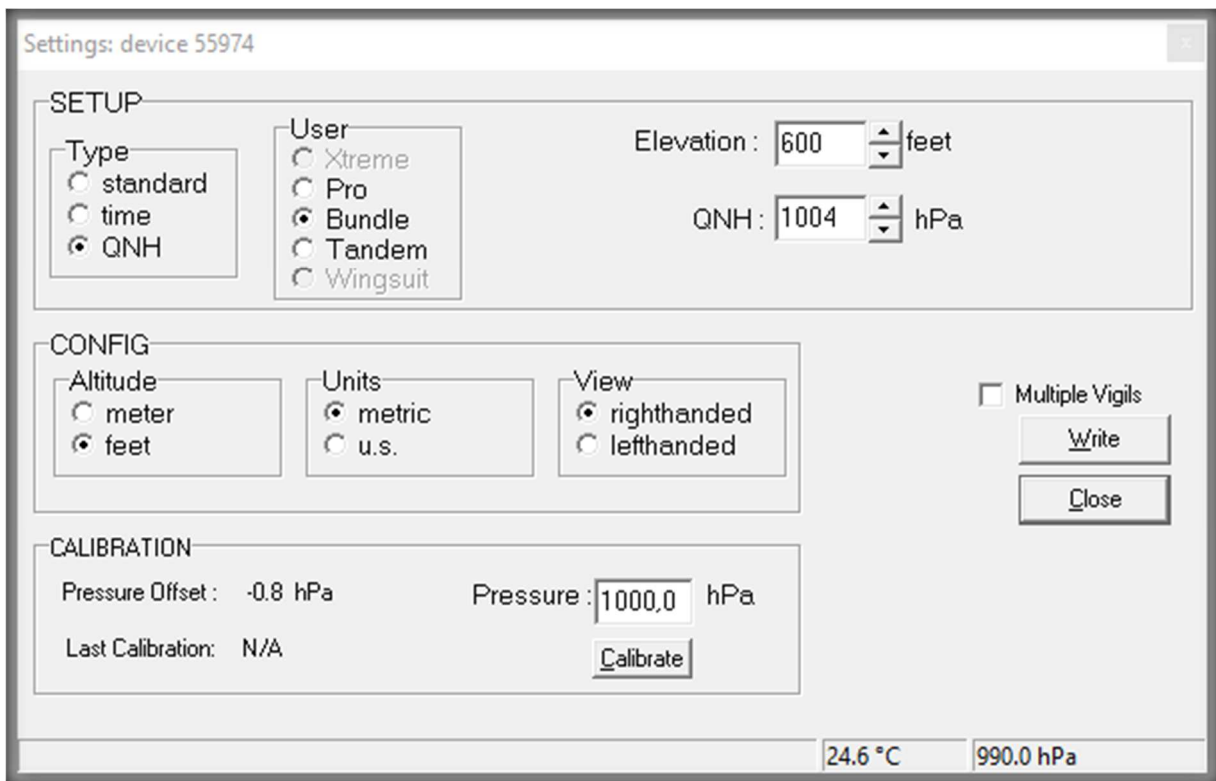
The Xtreme Vigil® isn't a multimode device.



5.7.4 Settings form for the Military Vigils

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.



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.

The screenshot shows a software window titled "Settings: device 55517". It is divided into three main sections: SETUP, CONFIG, and CALIBRATION. In the SETUP section, there are radio buttons for "Type" (standard, time, QNH) and "User" (Xtreme, Pro, Bundle, Tandem). An "Altitude correction" field is set to 0 meters. The CONFIG section has radio buttons for "Altitude" (meter, feet), "Units" (metric, u.s.), and "View" (righthanded, lefthanded). The CALIBRATION section shows a "Pressure Offset" of -0.1 hPa, a "Pressure" of 1010.5 hPa, and a "Last Calibration" date of 08/05/2020. A "Calibrate" button is present. On the right side, there are buttons for "Read", "Write", and "Close". The "Read" button and the "Multiple Vigils" checkbox are highlighted with a red rectangular box. The status bar at the bottom shows "20.5 °C" and "1010.4 hPa".

Note: If the 'Multiple Vigils' is selected the settings of the next Vigil are not shown in the form. The intention is to copy the same settings to multiple Vigils.

5.7.5 Settings form for the Military C15 Vigils

Settings: device 71116

SETUP

Type
 standard
 time
 QNH

User
 NS
 MJ
 BDL
 MTV3
 Cargo

CONFIG

Altitude
 meter
 feet

Units
 metric
 u.s.

View
 righthanded
 lefthanded

Multiple Vigils

Write

Close

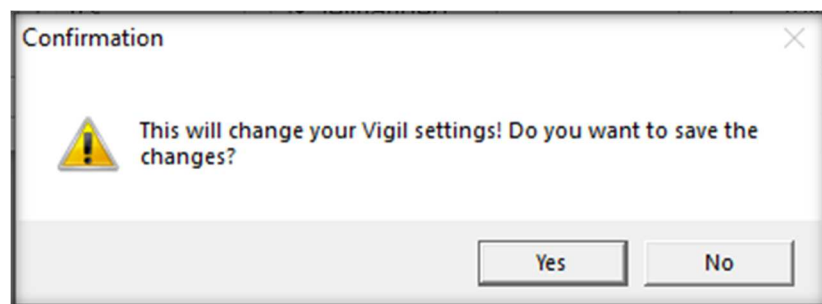
CALIBRATION

Pressure Offset : 0.2 hPa 1000,0

Last Calibration: N/A Calibrate

23.7 °C 1001.3 hPa

When changes are performed in the right window section, press 'Write' to save the changes to the Vigil®. A confirmation window will appear to save the changes:

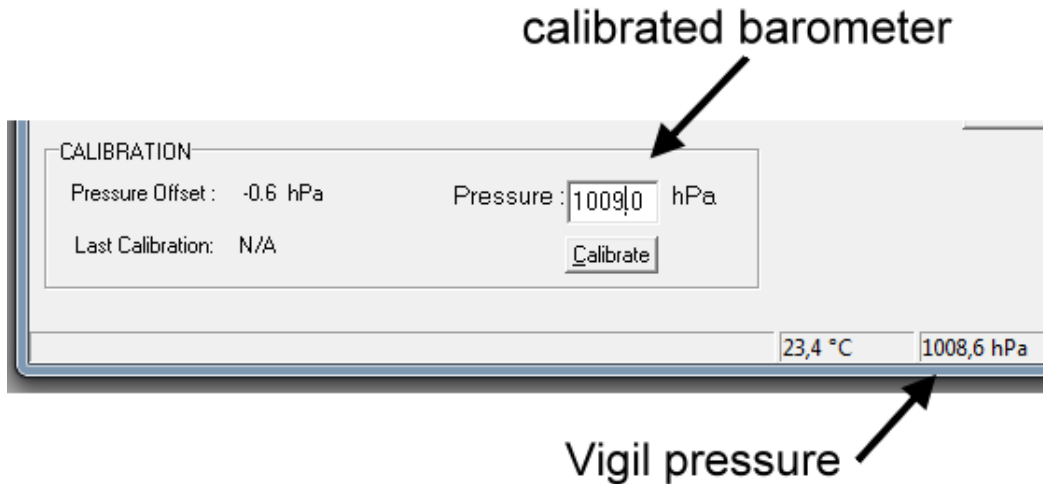


5.8 Calibration (only for Military Vigils).

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.

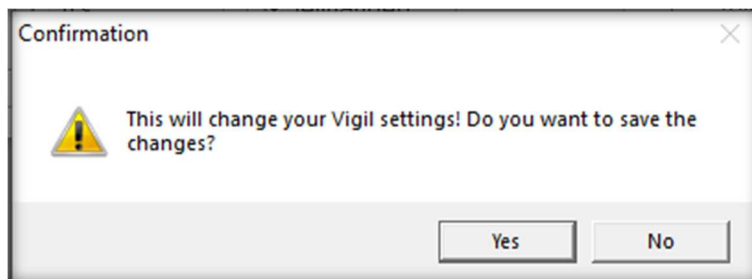
- If the difference is more than 5 hPa, a new calibration should be performed by a Vigil® qualified expert via the IR download box (and software).
- If the difference is more than 10 hPa, the Vigil® needs to be re-calibrated. In that case, the Vigil® must be returned to an official certified dealer or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

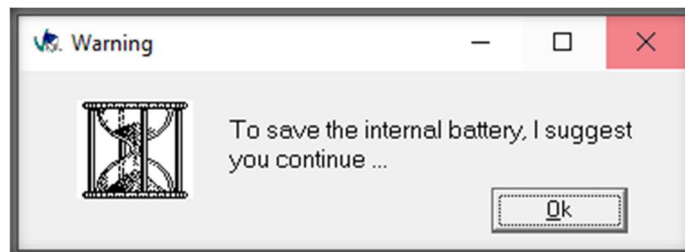
The Vigil® will show the measured temperature and pressure values again.

A confirmation window will appear to save the changes:



5.9 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 shut down and the following window will appear:

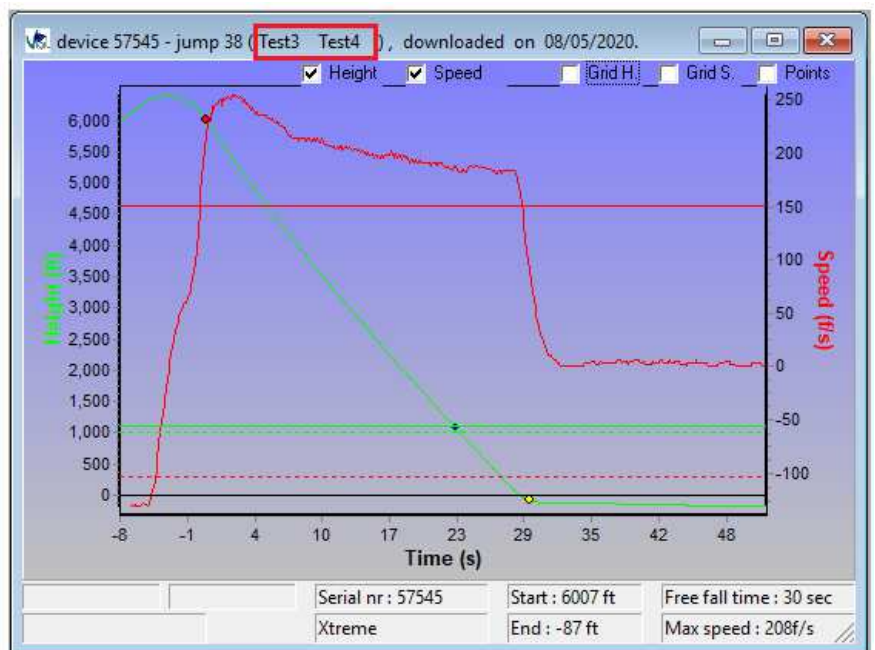
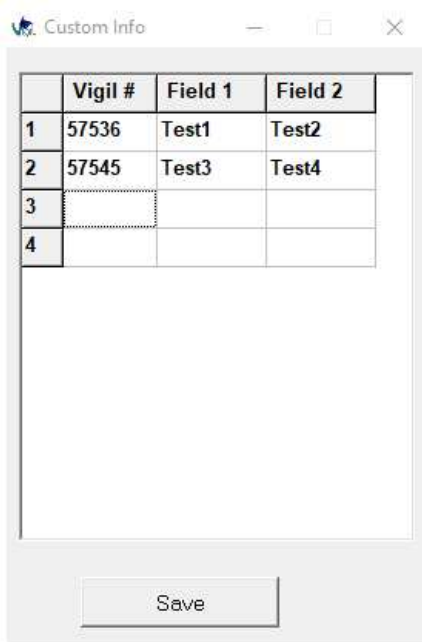


5.10 Define custom info to graph(s)

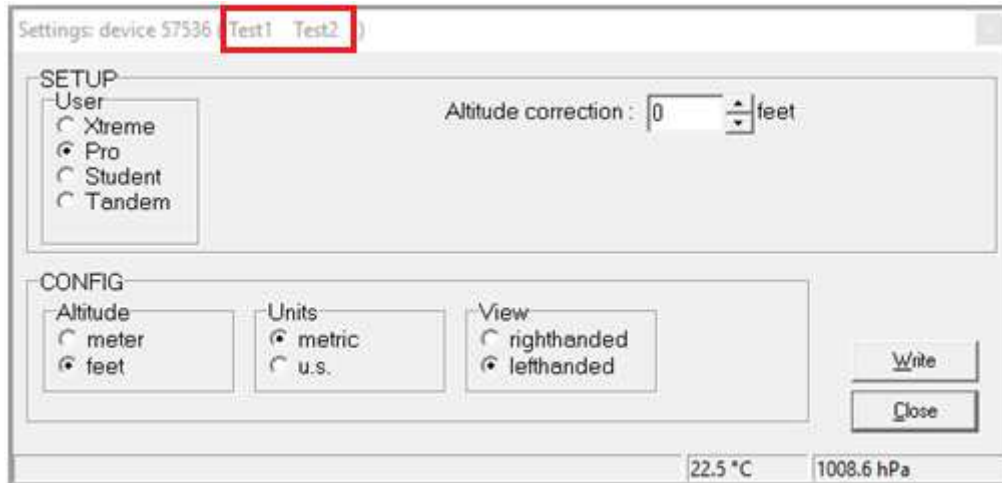
The software has the ability to add two extra “comment” fields to the graph for each Vigil®.

Example:

1. First open the “Custom Info” window from the menu “Settings”.
2. Fill in the Vigils 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 Vigils can now be filled in. In this case for Vigil #57536 “test1” and “test2”, for Vigil #57545 “test 3” and “test4”).
4. Press “Save” to save the settings.
5. Now read the graph(s) from one of the Vigils 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

6.1 What to do after an activation

When an activation has occurred, it's important that we receive the downloaded graph files from the unit (*.vgl file, see § 3.1.4) and a dump of the total memory (*.bin file) for a preliminary analysis (please do not send us image files like *.JPEG, *.bmp or data files like *.xls).

The *.vgl and *.bin 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 but please follow the new RMA procedure & form on the following link <http://www.vigil.aero/rma>

6.2 Possible reasons for an activation

6.2.1 Lifesaving:

Can only be approved by AAD Brussels based on the received data, info, graphs, and a completed lifesaving 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 on-line at

<http://www.vigil.aero/life-saving-report>).

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

6.2.2 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 high vertical 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 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:

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