



User Manual



Vibration Analyser Adash 4300 - VA3 Multi FW upload



FW 03.06 BETA
Ref: 23112004 RS

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References

This manual describes how to handle FW modules to be saved in the data memory of an Adash 4300 – VA3 instrument. It is valid for the all instruments of the Adash 4300 series and for FW modules started of the 03.00 version. Instrument loader version has to be 1.37 or greater.

References:

[1] *Vibration Analyser Adash 4300-VA3, User manual*

The basic manual is often mentioned in this one as **see [1]**.

We recommend reading of introductory chapters **References** and **Terminology** in the basic user manual [1] at first.

This manual is registered in the list of references as the [3] item.

FW modules for A4300-VA3

Internal software for an A4300-VA3 instrument is sorted to several modules. All FW modules are released on the Adash web site. The upgrade of FW modules is free of charge.

In each instrument there is stored the information on licenses the user has bought which. User can switch over a number of FW modules. In this case it is no need to send the instrument to service department.

To the instrument it is possible to store more than one FW module, which are stored in the Data instrument memory. When you want to use a FW module from the Data instrument memory, then you have to load it to the Software instrument memory at first.

When you have only one FW module license, then it is superfluous to store that FW module to the data instrument memory.

It is necessary to realize, that savings to the Software memory and to the Data memory are two different matters. When you want to save any module to both the locations, you have to make two loadings from your PC.

Also to save several versions of one FW module is not recommended, see chapter ***What is the version of Setup in FW module?***

A4300 HW types

Two different types of this instrument exist:

- A4300-VA3 standard instrument
- A4300 Ex intrinsically safe instrument (Eex ib IIC T3)

For each type the special FW modules exist and one type cannot substitute the other..

FW modules

There is possible to download in this time:

- data collector module
- balancing module.

Each module is represented by a file: **A4300_xxx.b4z**. The name contains these information:

File extension

- .b4z** FW module file
- .b4f** VA3 Loader file or additional license

HW type

- A4300_ standard instrument
- A4300_Ex intrinsically safe instrument

Version of FW module

v2133_ version 02.13.3
vBETA3020_ beta version 03.20.0

Type of FW module

ap_dc datacollector
ap_bal balancer

Examples

A4300Ex_BETA3020_ap_dc. b4z	FW datacollector, beta version 03.02.0, intrinsically safe
A4300_vBETA3020_ap_bal. b4z	FW balancer, beta version 03.02.0
A4300_InitLoader_v137. b4f	VA3 Loader, version 01.37

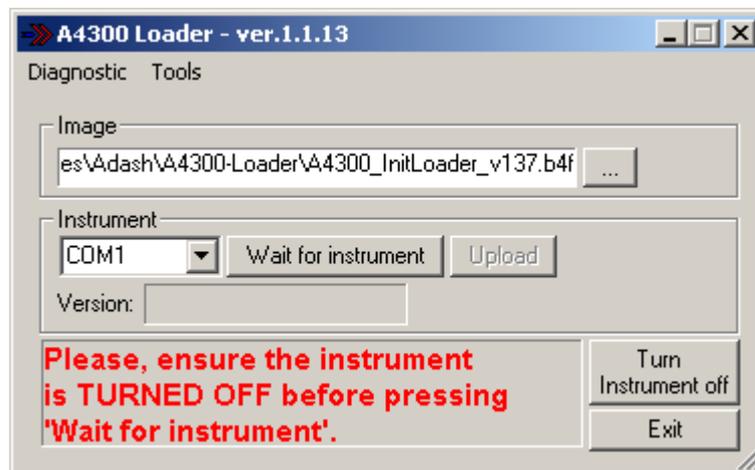
What you need for operating with FW modules

For operating with FW modules you need:

- to install the **A4300-Loader.exe** (version **1.1.13** or higher) to your PC, this is the standard installation on PC. The actual version of software is released on web site
- to download the **A4300 Loader** (version **01.37** or higher) to the instrument
- to download **FW module** (version **03.00** or higher) to the instrument.

Download of FW module from PC to software memory in the VA3

This operation, how to download FW module from PC to the software instrument memory is in details describe in the user manual – see [1], chapter **Instrument Firmware Update**. In this chapter is also describing how to operate with A4300-Loader.exe. The A4300-Loader.exe (version 1.1.13 and higher) can download a FW module from your PC also to the data instrument memory, see chapter **Firmware menu**.



Ensure, that A4300-Loader.exe installed on your PC is ver.1.1.13 or higher. Only with this software you can save FW modules to the data instrument memory. Required software you can download from web side.

VA3 Loader

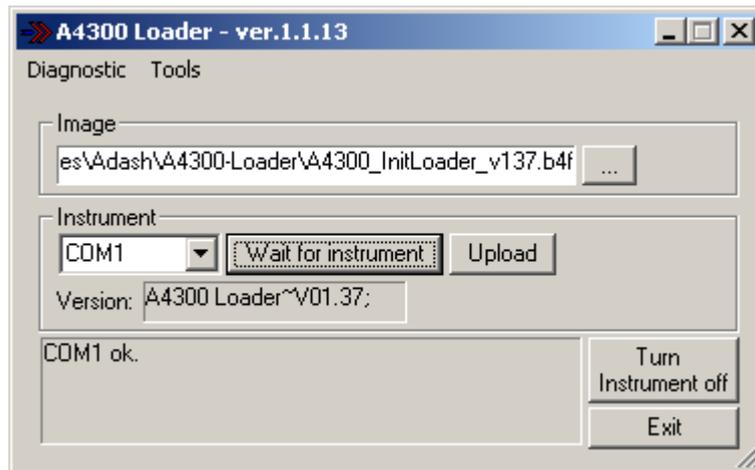
The VA3 Loader is saved in the VA3 Loader Memory. Older versions supported only the transfer of one FW module from PC to the **software** memory in the instrument. From the version **01.37** it supports also transfer of FW modules from PC to **data** memory in the instrument. It enables to have more then one FW module in the instrument.

Ensure, that VA3 Loader installed in your instrument is ver. **01.37** or higher. Only with this software you can save FW modules to **data** memory in the instrument. Required software you can download from web side (**A4300_InitLoader_v137.b4f**).

The way, how to transfer the new VA3 Loader to your instrument is the same as standard transfer of a FW module – see [1], chapter **Instrument Firmware Update**. When the transfer of the loader is finished correctly it is displayed. Check the version and switch off the instrument (**ESC + START**).

What version of VA3 Loader is in instrument?

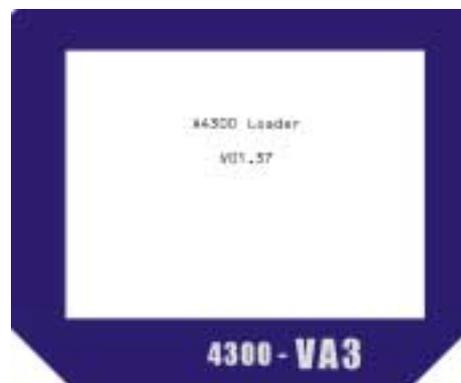
Switch off the instrument and connect it to your PC by RS232 cable. Run the A4300-Loader.exe. Push the **Wait for instrument** button and then push **START** button on the instrument keyboard. When the communication is correct, then the version of VA3 Loader is displayed on the screen of the instrument and also of your PC.



Version of VA3 Loader in the **Version** field.



Old versions – logo of 3.5 disk



Versions 1.37 and higher

FW module version

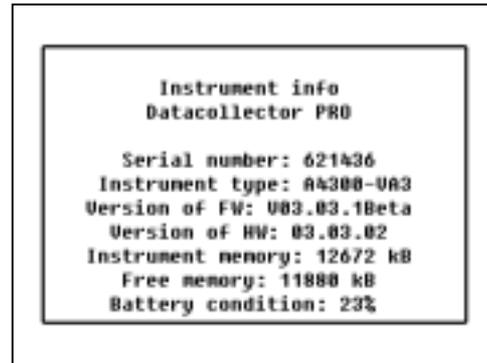
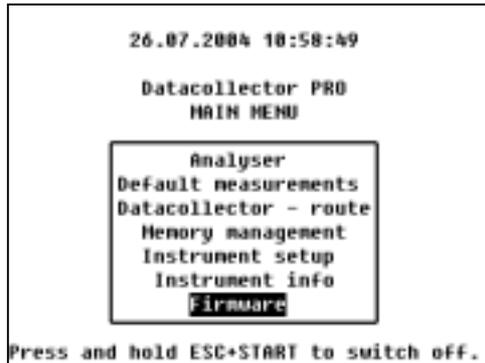
When we need to work with more than one FW module in the instrument then each FW module has to be ver. 03.00 or higher. Only in these versions the **Firmware** item is in Main Menu.

Ensure, that FW module saved in your instrument is ver. **03.00** or higher. Only with this software you can save next FW modules to the **data** instrument memory. Required software you can download from web side (**A4300_xxx.b4z**).

What version of FW module is in software instrument memory?

From the Main menu select **Instrument info/ Instrument**. The screen displays e.g. information:

- FW module type : Datacollector PRO
- Version of FW module: V03.03.1Beta



What is the version of Setup in FW module?

The FW module **.b4z** contains two parts:

- init procedure
- own software code.

When a FW module is installed to the software instrument memory, then the init procedure is automatically ran. The check of all system data is made. When all data are correct, then nothing is changed and on the display the message **“current”** occurs. Sometimes the old data has to be changed to higher version of the FW module.

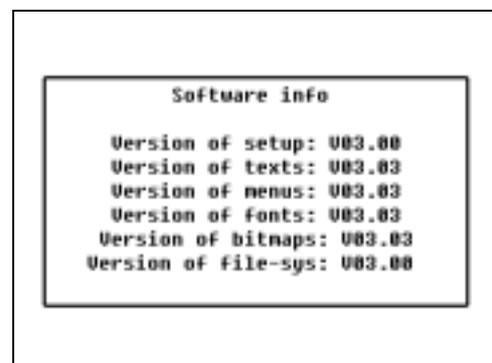
The **setup** is one block of the system data. It contains all setups of the instrument (wideband meas., spectrum meas., ...). When the FW module is higher version then the FW module in the instrument, then only possible new items of setup are added and old values are not changed.

When you have downloaded older version of FW module, then it is the current version (also this way is possible), then the older version doesn't know all setup items. Then the default values are defined and old version of setup is created.

Strong recommendation:

Don't download older version of FW module.

When you need to know exact version of **setup** block then select from Main Menu the **Instrument info/FW versions** and all system data blocks versions occur. The version of setup is the most important one. Various versions of FW module can use the same version of setup. For instance datacollector 03.02 and balancer 03.03 uses the setup ver. 03.00.



Firmware menu

When the FW module ver. 03.00 or higher is downloaded in the software instrument memory, then **Firmware** item occurs in the main menu. Also you need the VA3 Loader ver. 01.37 or higher. Without this version of VA3 Loader the firmware item will only reset the instrument.

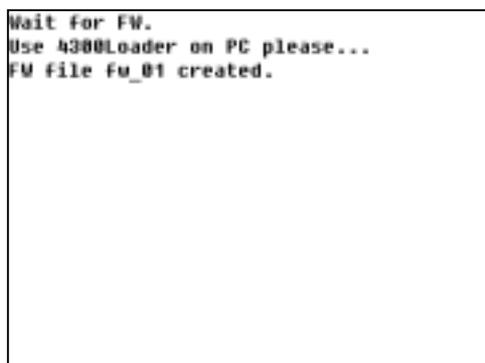


Download from PC

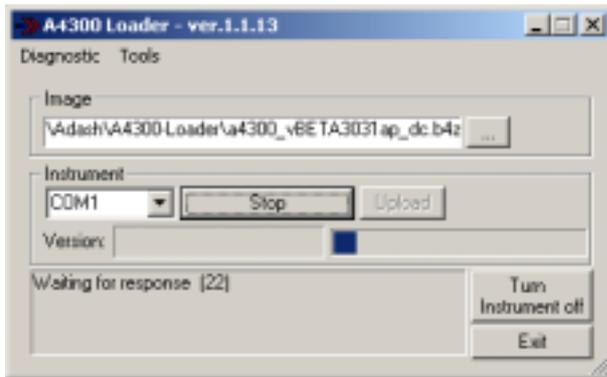
This item enables to download selected FW module from your PC to the **data** instrument memory. When you have in the data memory the same module (or older version) as the module you want to download, it is recommended to delete this module in the data memory before. It is not sensible to keep an older versions in the data instrument memory.

FW module download - step by step

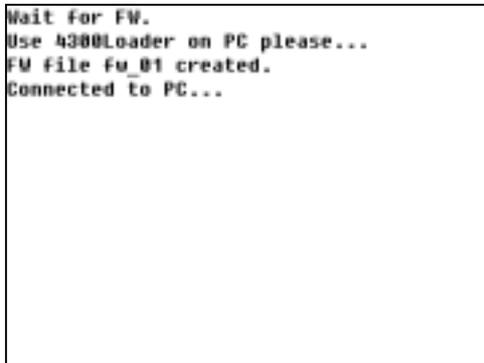
1. Switch on the instrument and select **Firmware** item in the Main Menu.
2. Select **Download from PC** item. On the display the message "Use 4300Loader on PC please..." appears.



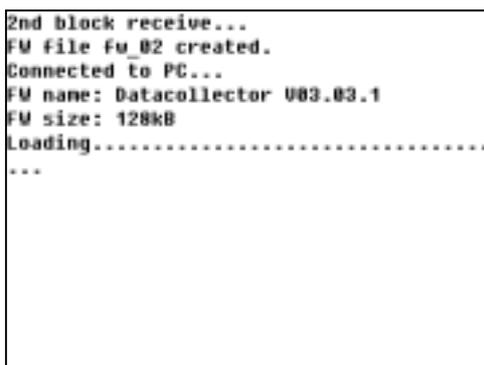
3. Run the **PC Loader** on your PC. Then a file is created in the data instrument memory. The number in the file name (on VA3) informs you, how many of FW modules are saved in the data instrument memory (the first FW module is saved to the fw_01 (init part) and to the fw_02 (fw module). Next modules will be saved to the fw_03 + fw_04, fw_05 + fw_06, ...



4. Select required FW module (A4300_xxx.b4z file) by the same way as usually, see [1], chapter **Instrument Firmware Update**.
5. Click to **Wait for instrument** button.
6. When the communication is created, click to **Upload** button.



7. The transfer of the FW module is started.
8. Successful transfer is finished by return to **Firmware** menu.



9. Select **Use** item. The list of all saved modules appears. Check that your FW module is in this list. If you push **START** button, then current active FW module from the list will be loaded from the data memory to the software memory and will be ran. This process takes aprox. 30 sec.



Use **ESC** to cancel it

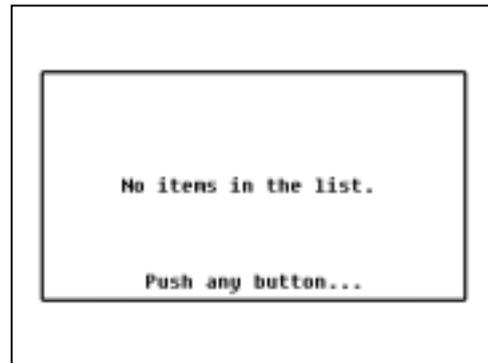
Delete from the list

Select from the list the FW module you want to delete which. Press **START** button. Use **ESC** when you want canceled this process. Removing of a FW module from the **data** instrument memory doesn't change the content of the **software** instrument memory. It is impossible to delete the current FW module in the software memory. There is possible only to rewrite it by another FW module.

Do not keep old versions of FW modules in the data memory.



Before deleting – one FW in the list

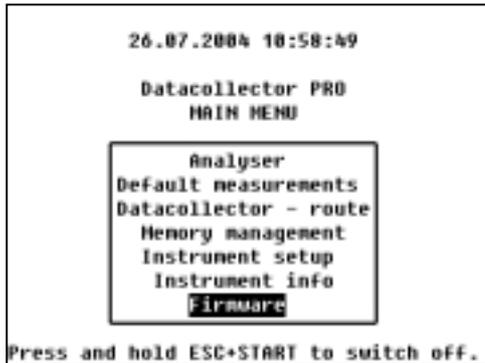


After – no FW in the data memory

Use Item

Select required FW module from the **data** memory and press **START**. This module will be loaded to the **software** memory. This process takes aprox. 30 sec. Use **ESC** to cancel it. The current FW module in the software instrument memory will be rewritten by the new FW module.

Step by step description



The **Datacollector PRO** is the current module in the software instrument memory



It will be rewritten by the **Balancer** module



Finished

Recommendation

It is recommended to use FW modules in the data memory with the same version.

Old version of system data (setup block)

The setup block is not changed, when you download the new FW module to the instrument. Only when the new FW module contains new setup items, then these items are edit to setup block.

User Notes