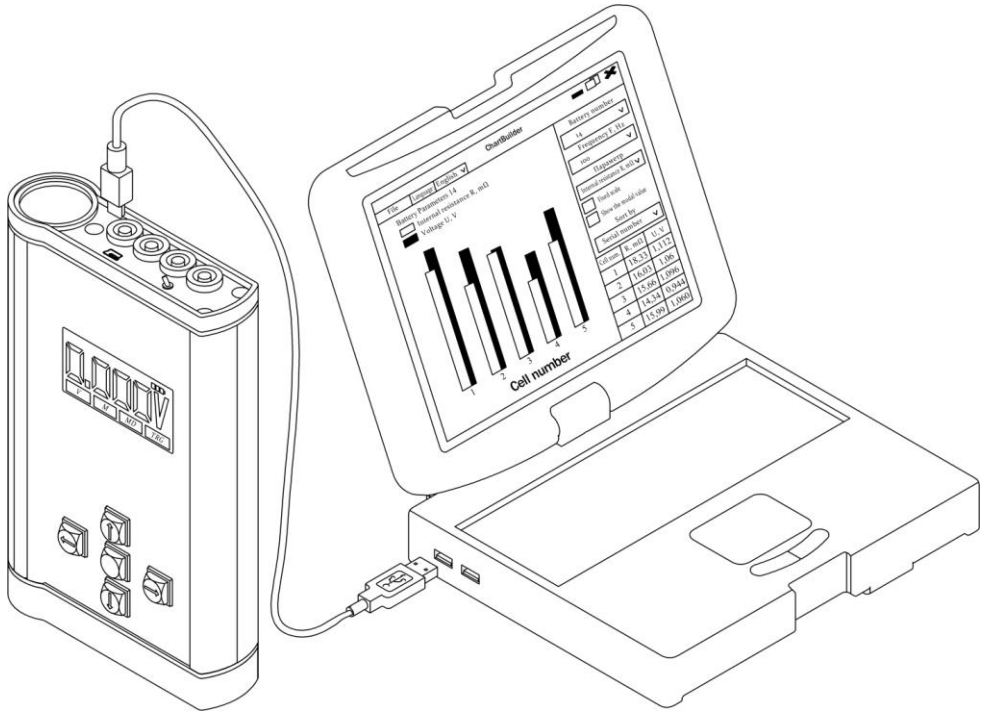
"ChartBuilder" software
version 1.0
Quick Start Guide

ALEKTO POWER

Read this guide completely
for easy installation and operation

To get latest software version or in case of problems and issues,please visit **alektogroup.com**

«ChartBuilder» software is intended for building voltage and resistance (phase angle) histograms by parameter values of accumulators and primary cells (hereinafter batteries) tested on Electrochemical power source analyzer **AEA30V**.



Features:

-Displaying of data formed on AEA30V
-Easier determination of defective batteries
-Side-by-side parameters comparison of different batteries
- Rejection of incorrect measurements
- Deletion of duplicated measurements

Installed .NET Framework 4.0 Full Profile is required.

1 Installation

1) To get ChartBuilder software, **download** it **on alektogroup.com** by following path: **“**Home page**”** → **“**Catalog**”** → **“**Analyzer AEA30V**”** → **ChartBuilder Software.**
2) After downloading, **unzip** and **run Setup file** ChartBuilder_vX.X (X.X determines software version).
3) Select the language to use during installation. **Russian** and **English** languages are available.
4) To install the software **with default parameters**, **press “Next >”** at all times during installation.
5) To create desktop **shortcut**, **select “Create a desktop shortcut”** at the last stage of installation.
6) To run the software, **open** ChartBuilder **desktop shortcut**. If you have not chosen to create desktop shortcut, **run** ChartBuilder **from Start menu**.

Note** – **To update** the software, simply **install** the **latest version.

2 Uninstallation

1) To uninstall ChartBuilder, do **“Control panel”** → **“Programs”** → **“Programs and Features”** (Windows Vista and above)
(For Windows XP: **“Control panel”** → **“Add or Remove Programs”**)

2) Choose “ChartBuilder” and **press “Uninstall”**
3) In opened window, choose **“Uninstall”**
4) Press “**OK**”

3 Uploading data file

1) Connect turned-on AEA30V to PC via **USB – Mini-USB cable.** OS of the PC will determine AEA30V as a storage device.
2) Copy data.txt to any folder, **rename** copied file.
3) To upload data file to ChartBuilder, **press “File” → “Open”** and **select data file** you would like to upload.

***Note**: in uploaded data file, all columns must be separated one from another by «|» sign. **Any text notations are forbidden. Table heading is not necessary. “PrimNumber” column must contain unique battery number throughout the data file**. Because of that, it is recommended to create new .txt file with needed part of data.*

Date	Time	PrimNumb	SecNumb	Voltage	F	Z	R	X	A
		0001	0002	2.115	20.00	0.698	0.683	-0.145	-11.98
					100.0	0.738	0.649	0.352	28.47
					500.0	2.189	0.641	2.094	72.97
					1000.	4.210	0.662	4.158	80.95
		0001	0004	2.108	20.00	0.711	0.699	-0.134	-10.85
					100.0	0.784	0.673	0.404	30.97
					500.0	2.396	0.694	2.294	73.16
					1000.	4.582	0.771	4.517	80.31

4 ChartBuilder main window

1 - **“File”** context menu

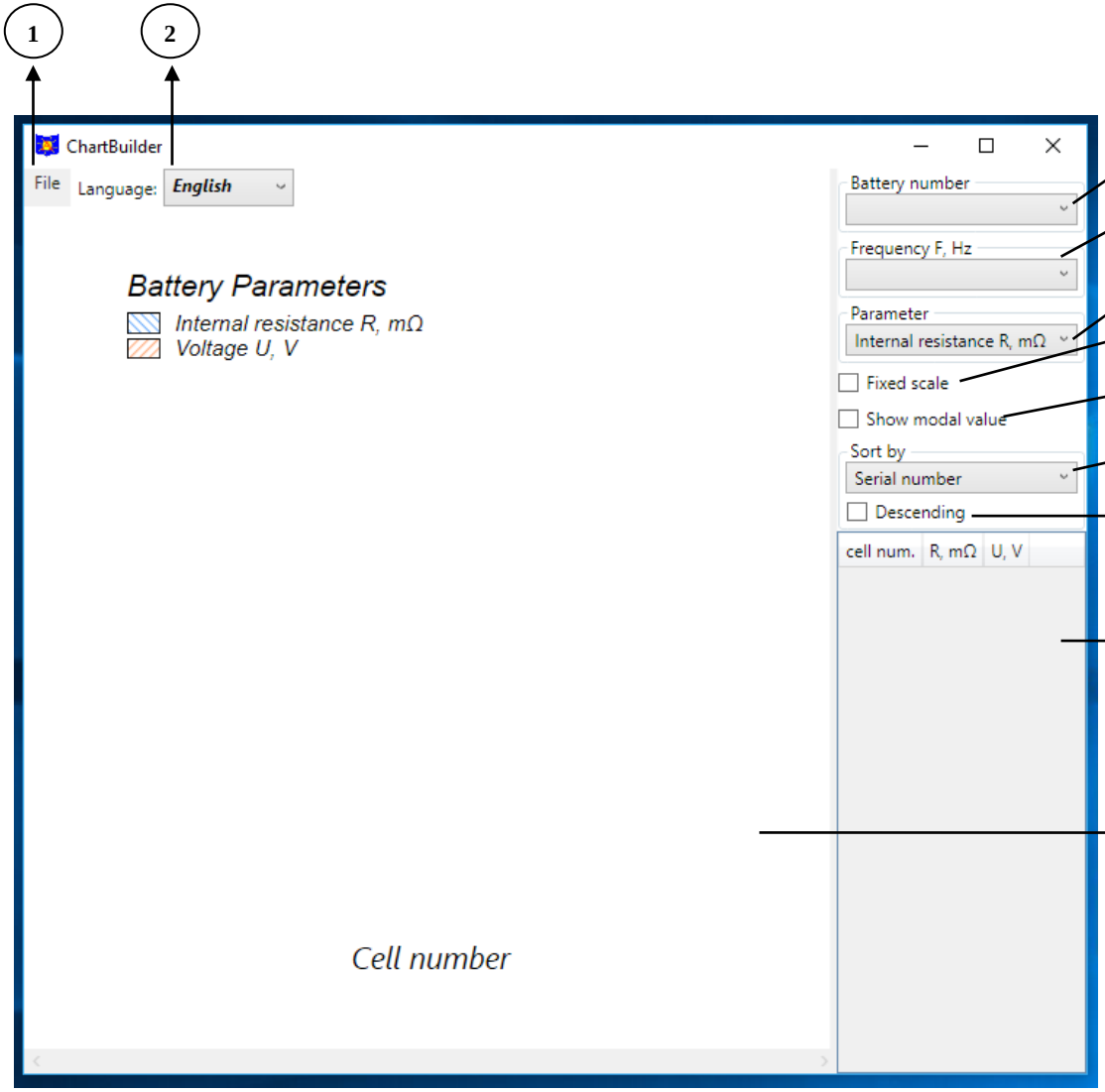
2 - “Language” dropdown list.

3 - “Battery number” dropdown list. Click to select battery number.

4 – “Frequency F, Hz” “Frequency” dropdown list. Click it to select frequency. Shown values of Z, R, X, A are right for selected frequency value.

5 - **“Parameter”** dropdown list. Parameter which is selected here will be displayed on display field.

6 - “Fixed scale” checkbox. If flag is set, histogram scale will be fixed. It is useful for comparison of battery parameters before and after maintenance.



7 - **“Show the modal value”** checkbox. If flag is set, modal value line will be displayed.

8 - **“Sort by”** dropdown list. The values on display field are sorted according to set parameter.

9 - “Descending” checkbox. Set flag to invert sorting direction.

10 - **Table** consisting of measured parameter values.

11 - **Display field.** Histograms are shown here. Scroll to zoom in or out.

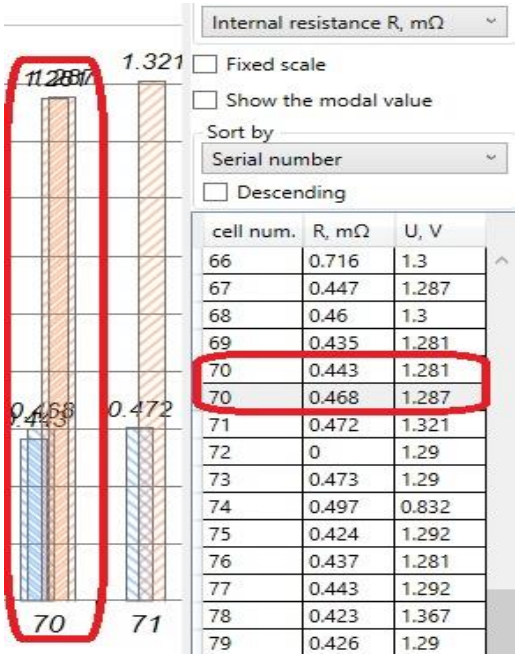
5 Saving

1) To save histogram, press **“File” → “Save”**.

2) **Enter** a histogram **name**, choose file extension and press **“Save”**. Possible file extensions: **.jpg**, **.png**, **.bmp**, **.gif**, **.tif**.
It is possible to open such files in any graphic editor or viewer.

6 FAQ

There are duplicated measurements in the table

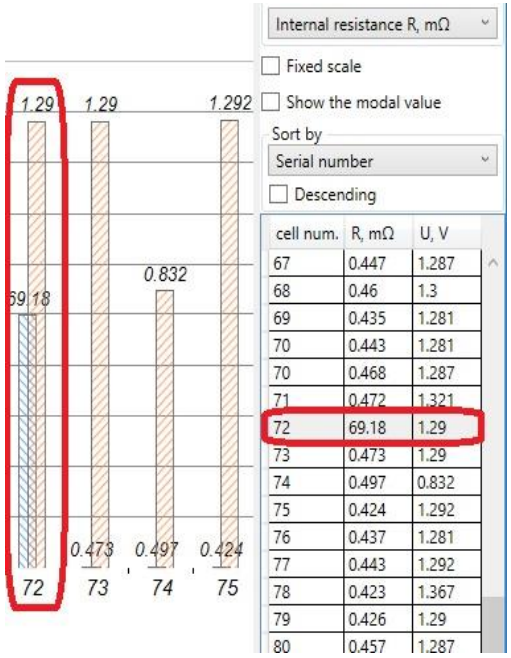


cell num.	R, mΩ	U, V
66	0.716	1.3
67	0.447	1.287
68	0.46	1.3
69	0.435	1.281
70	0.443	1.281
70	0.468	1.287
71	0.472	1.321
72	0	1.29
73	0.473	1.29
74	0.497	0.832
75	0.424	1.292
76	0.437	1.281
77	0.443	1.292
78	0.423	1.367
79	0.426	1.29

Problem: there is duplicate for №70 in the table. It looks like an overlapping on histogram.
Solution: select excessive string and delete it by pressing **“Delete”** key. After that, the histogram will be rebuilded automatically.

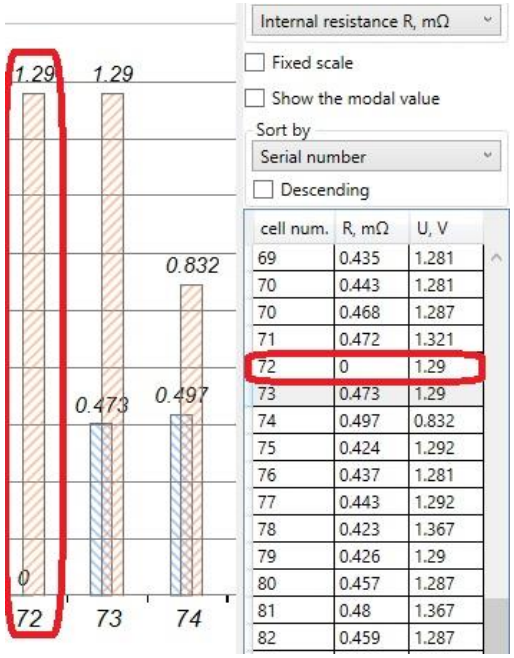
There is an element with much more resistance than others

Before



cell num.	R, mΩ	U, V
67	0.447	1.287
68	0.46	1.3
69	0.435	1.281
70	0.443	1.281
70	0.468	1.287
71	0.472	1.321
72	69.18	1.29
73	0.473	1.29
74	0.497	0.832
75	0.424	1.292
76	0.437	1.281
77	0.443	1.292
78	0.423	1.367
79	0.426	1.29
80	0.457	1.287

After



cell num.	R, mΩ	U, V
69	0.435	1.281
70	0.443	1.281
70	0.468	1.287
71	0.472	1.321
72	0	1.29
73	0.473	1.29
74	0.497	0.832
75	0.424	1.292
76	0.437	1.281
77	0.443	1.292
78	0.423	1.367
79	0.426	1.29
80	0.457	1.287
81	0.48	1.367
82	0.459	1.287

Problem: there is only one resistance/impedance value is visible on histogram.
Solution: to make visible resistance/impedance values of other cells, select problem element in the table and **enter “0” as Z or R value**. After confirmation (**press “Enter”** key), histogram will be rebuilded automatically.