

KKG Series

PC Upper Computer Software User Manual V1.2

Catalogue

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1. Preface

This software is suitable for remote control of KKG Series power supplies. The above series also include multiple models, and there are differences in various functions among different models, such as some models without external control functions or some parameters not open for setting. The operating logic is basically the same. This document provides remote control operation explanations for the most comprehensive models.

2. Software installation

The software installation requires the use of Windows 7 or higher operating system. The following are the installation steps:

- ① Insert the CD and enter the Testing Software folder, double-click "Setup" to install

bin	2024/10/31 9:00
license	2024/10/31 9:00
supportfiles	2024/10/31 9:01
nidist.id	2024/10/31 9:01
setup.exe	2024/6/24 16:47
setup.ini	2024/10/31 9:03

- ② After the initialization of the installation package is completed, the customer can change the installation path according to their needs, and then click "Next"

Destination Directory
Select the primary installation directory.

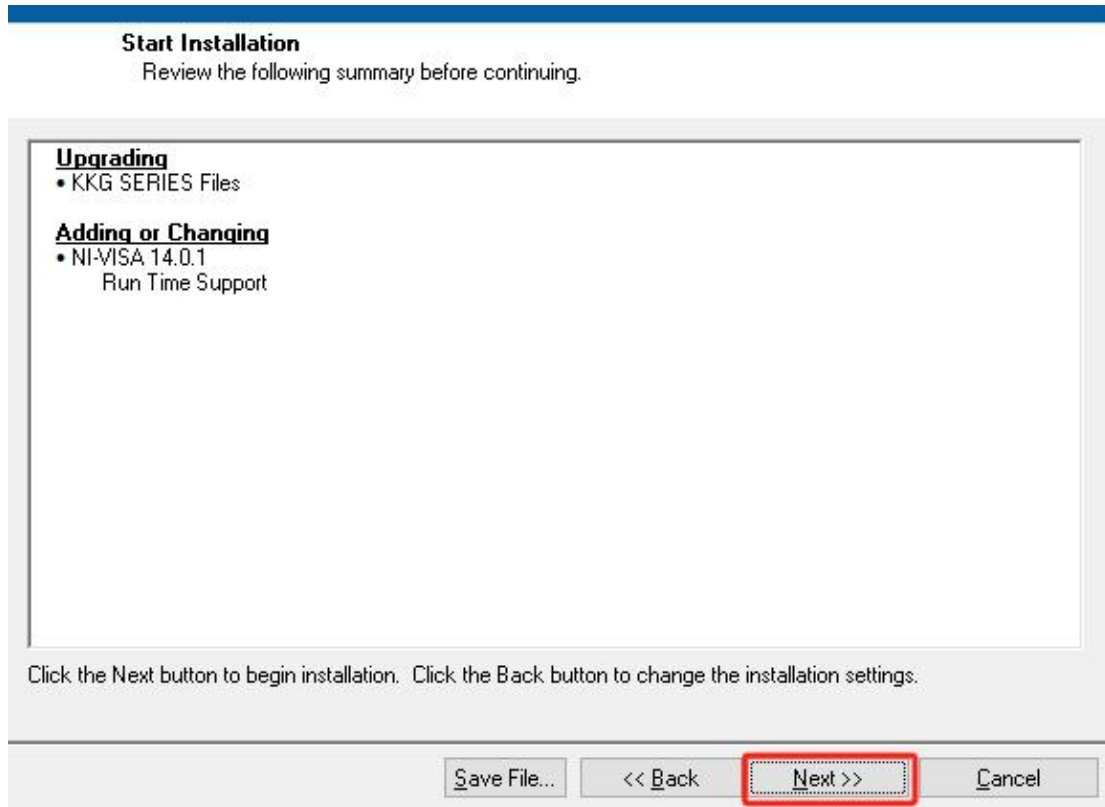
All software will be installed in the following locations. To install software into a different location, click the Browse button and select another directory.

Directory for KKG SERIES
C:\Program Files (x86)\KKG SERIES\ Browse...

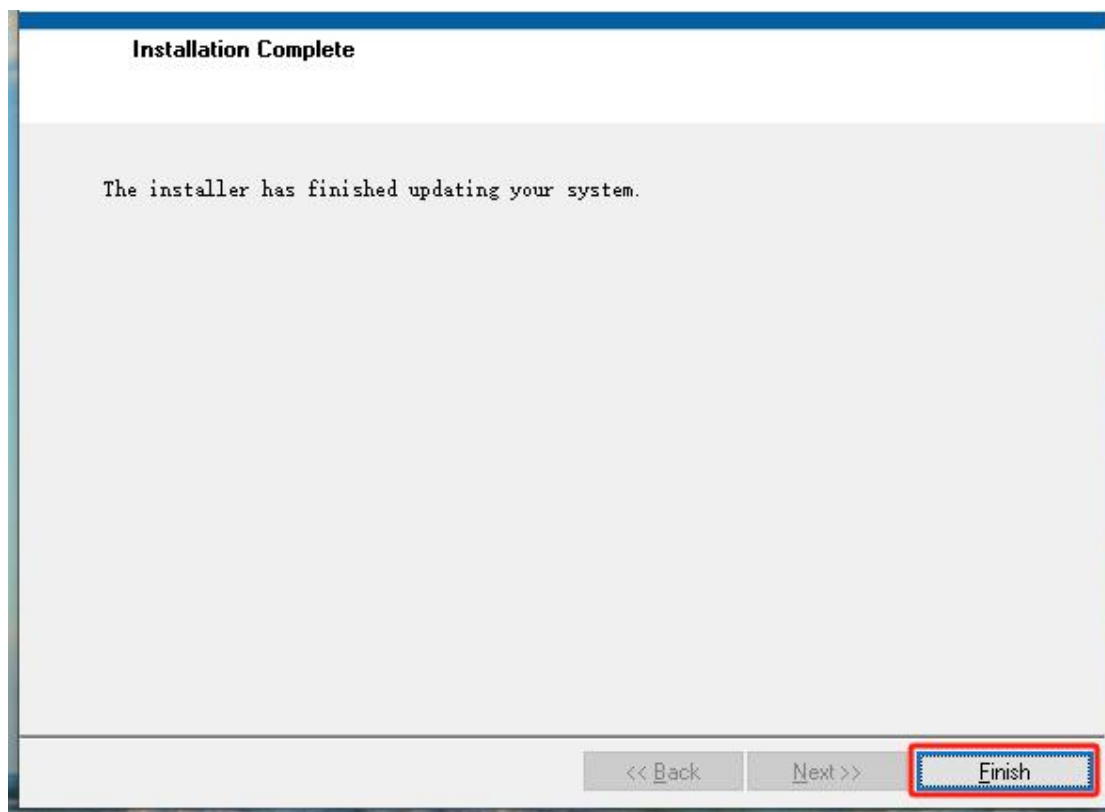
Directory for National Instruments products
C:\Program Files (x86)\National Instruments\ Browse...

<< Back Next >> Cancel

- ③ Continue clicking 'Next'



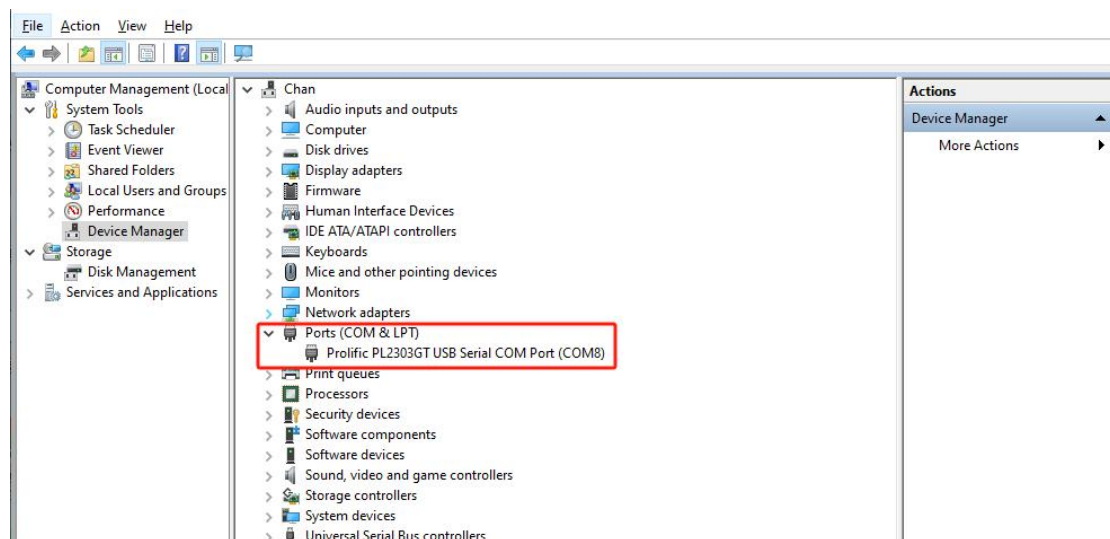
④ Wait for a moment, complete the installation; click "Finish", find the installed software and proceed with the operation



3. Software startup and interface operation instructions

3.1 Selection of Communication Ports

The communication methods include RS232, USB, and LAN. Simply connect the communication port between the PC and the power supply using the provided or corresponding communication cable. After inserting the corresponding communication cable, select the corresponding communication method and configure the corresponding communication settings to perform remote control. If you find that communication is not working properly, you can open the Device Manager on my computer and check if the corresponding computer communication port is working properly.



USB serial device abnormalities may occur in the Windows 7 system, and exclamation marks may appear on the above interface. In this case, it is necessary to obtain the corresponding USB driver from the supplier for installation.

3.2 Interface Operation Instructions

3.2.1 Communication Configuration and Equipment Status Display



① Figure number 1, select communication methods including COMM and LAN. As the USB communication cable will transform into a COMM port after insertion, USB here belongs to COMM port communication. And then select the corresponding COMM port number. If choosing RS232 communication cable, select COMM here; Select USB communication cable, select COMM here; Select LAN, click here to switch to LAN mode. When selecting LAN mode, you can configure the IP and network ports. The above parameters need to be consistent with the device panel display, as shown in the following figure:



② Number 2 in the diagram, select the COMM port. In the device management section, check the port number for connecting the computer to the device, and click the drop-down box to select the corresponding COMM port.

③ Figure 3, Baud Rate - baud rate setting requires the corresponding baud rate to be configured on the device panel. Select the corresponding baud rate here.

④ After the communication configuration is correct, click here to establish a communication connection. Once the connection is successful, this area will light up, indicating that the

communication has been connected. The software here takes 1-2 seconds to initialize and lock the device. Some parameters will be set to default values, please pay attention to parameter changes.



⑤ After successful connection, icon number 4 will display the recognized model, and icon number 5 will display the current control mode, which is divided into Remote control and External control.

⑥ Click Reset to reset the configuration parameters.

⑦ Click Exit to exit the system.

3.2.2 Read back data display



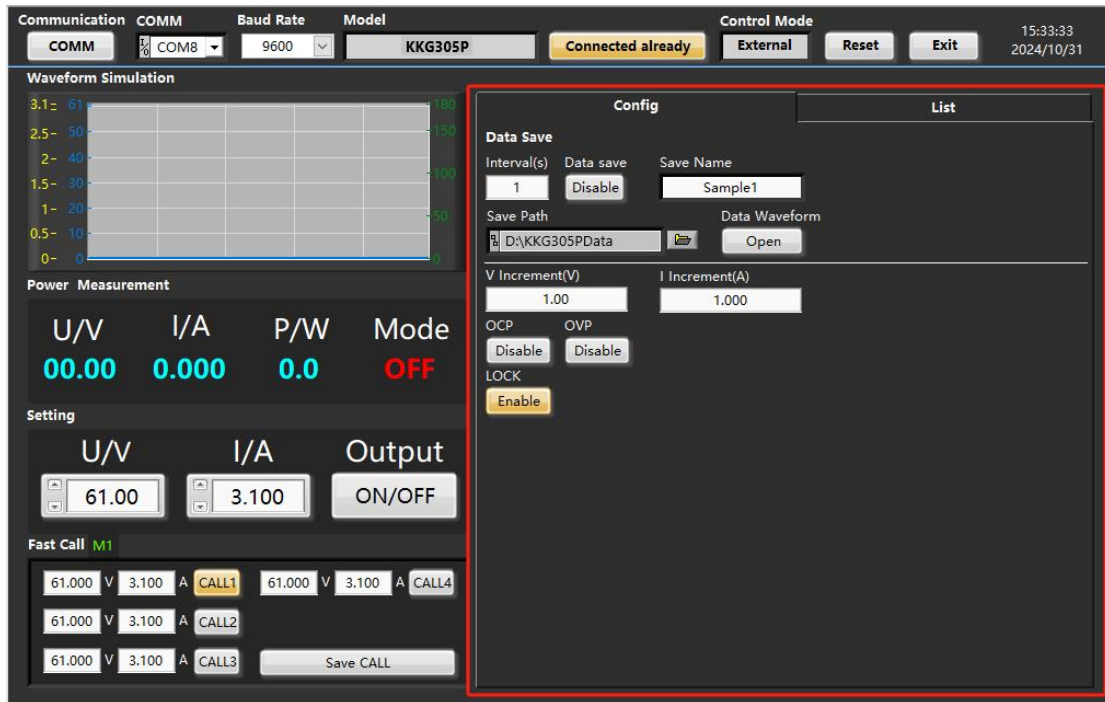
Real time display of data waveform, read back voltage, current, power, and output mode.

3.2.3 Parameter Setting and Quick Call



- ① The Setting section allows for setting voltage and current, as well as controlling output.
- ② The Fast Call section can quickly call voltage and current parameters. After setting the corresponding voltage and current parameters, click on the corresponding CALL number to recall them in real time. To save the setting of parameters, click Save CALL.

3.2.4 Configuring Equipment Parameters



3.2.4.1 Data Save

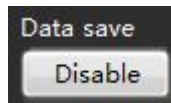
① The use of Data Save:

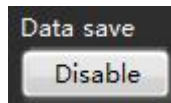
Interval (s) - data recording time interval;

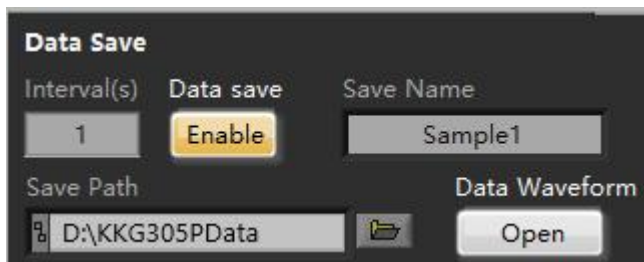
Save Name - saved document name;

Save Path - data saving path;

defaults to saving in the root directory of drive D. If there is no drive D, it is saved to the root directory of drive C.



② After configuring the above parameters, click  to start recording the data. The corresponding parameters can not be changed. If you need to modify them, click again to turn off the data recording function. If Save Name does not change, the data will continue to be saved in the previous file. If it changes, a new data file will be created.

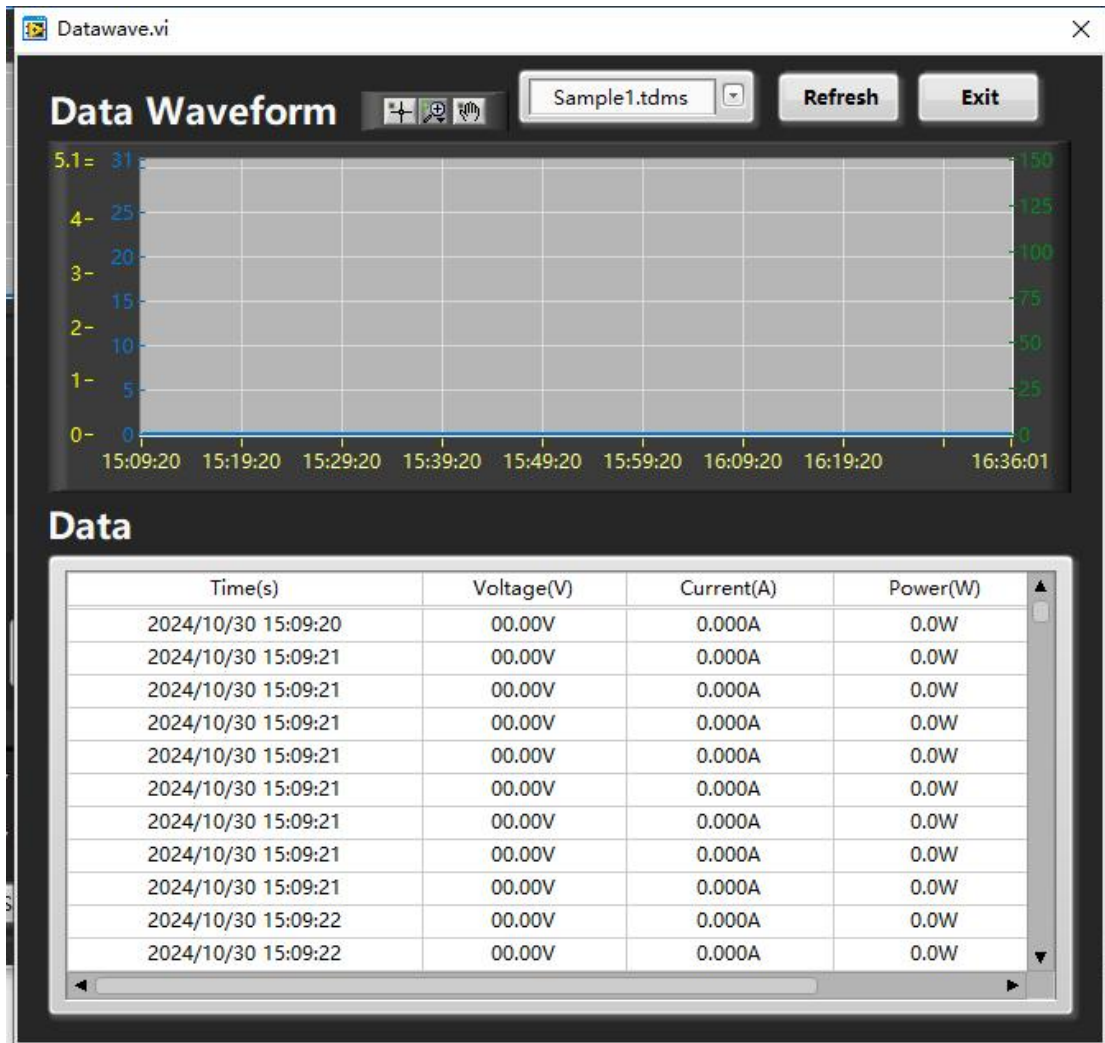


Data file description: users can find the data file based on the displayed path here. The saved file format is .tdms file, which can be opened through Excel. The file will display the data quantity and real-time data. And you can simply switch the table name in the lower left corner.

	A	B	C	D	E	F	G	H	I
1	Root Name	Title	Author	Date/Time	Groups	Description			
2	Sample1				1				
3									
4	Group	Channels	Description						
5	Data	4							
6									
7	Data								
8	Channel	Datatype	Unit	Length	Minimum	Maximum	Description	Start Index	
9	Time	DT_STRING		506					
10	Measurement Voltage	DT_STRING		506					
11	Measurement Current	DT_STRING		506					
12	Measurement Power	DT_STRING		506					
13									
14									
15									
16									
17									
18									

#	A	B	C	D
1	Time	Measurement Voltage	Measurement Current	Measurement Power
2	2024/10/21 17:05:19	20.00V	0.000A	0.0W
3	2024/10/21 17:05:19	20.00V	0.000A	0.0W
4	2024/10/21 17:05:20	20.00V	0.000A	0.0W
5	2024/10/21 17:05:21	20.00V	0.000A	0.0W
6	2024/10/21 17:05:22	20.00V	0.000A	0.0W
7	2024/10/21 17:05:23	20.00V	0.000A	0.0W
8	2024/10/21 17:05:24	20.00V	0.000A	0.0W
9	2024/10/21 17:05:25	20.00V	0.000A	0.0W
10	2024/10/21 17:05:26	20.00V	0.000A	0.0W
11	2024/10/21 17:05:27	20.00V	0.000A	0.0W
12	2024/10/21 17:05:28	20.00V	0.000A	0.0W
13	2024/10/21 17:05:29	20.00V	0.000A	0.0W
14	2024/10/21 17:05:30	20.00V	0.000A	0.0W
15	2024/10/21 17:05:31	20.00V	0.000A	0.0W
16	2024/10/21 17:05:32	20.00V	0.000A	0.0W
17	2024/10/21 17:05:33	20.00V	0.000A	0.0W
18	2024/10/21 17:05:34	20.00V	0.000A	0.0W
19	2024/10/21 17:05:35	20.00V	0.000A	0.0W
20	2024/10/21 17:05:36	07.60V	3.533A	26.9W
21	2024/10/21 17:05:37	02.22V	5.100A	11.3W
22	2024/10/21 17:05:38	02.22V	5.100A	11.3W
23	2024/10/21 17:05:39	02.22V	5.100A	11.3W
24	2024/10/21 17:05:40	02.22V	5.100A	11.3W
25	2024/10/21 17:05:41	02.22V	5.100A	11.3W
26	2024/10/21 17:05:42	02.22V	5.100A	11.3W
27	2024/10/21 17:05:43	02.22V	5.100A	11.3W
28	2024/10/21 17:05:44	02.22V	5.100A	11.3W
29	2024/10/22 10:09:51	22.94V	0.000A	0.0W
30	2024/10/22 10:09:52	22.94V	0.000A	0.0W
31	2024/10/22 10:09:53	22.94V	0.000A	0.0W
32	2024/10/22 10:09:54	22.94V	0.000A	0.0W
33	2024/10/22 10:09:55	22.94V	0.000A	0.0W
34	2024/10/22 10:09:56	22.94V	0.000A	0.0W
35	2024/10/22 10:09:57	22.94V	0.000A	0.0W
36	2024/10/22 10:09:58	22.94V	0.000A	0.0W
37	2024/10/22 10:09:59	22.94V	0.000A	0.0W
38	2024/10/22 10:10:00	22.94V	0.000A	0.0W
39	2024/10/22 10:10:01	22.94V	0.000A	0.0W
40	2024/10/22 10:10:02	22.94V	0.000A	0.0W
41	2024/10/22 10:10:03	22.94V	0.000A	0.0W
42	2024/10/22 10:10:04	22.94V	0.000A	0.0W
43	2024/10/22 10:10:05	22.94V	0.000A	0.0W
44	2024/10/22 10:10:06	22.94V	0.000A	0.0W
45	2024/10/22 10:10:07	22.94V	0.000A	0.0W
46	2024/10/22 10:10:08	22.94V	0.000A	0.0W
47	2024/10/22 10:10:09	22.94V	0.000A	0.0W
48	2024/10/22 10:10:10	22.94V	0.000A	0.0W
49	2024/10/22 10:10:11	22.94V	0.000A	0.0W
50	2024/10/22 10:10:12	22.94V	0.000A	0.0W
51	2024/10/22 10:10:13	22.94V	0.000A	0.0W
52	2024/10/22 10:10:14	22.94V	0.000A	0.0W
53	2024/10/22 10:10:15	22.94V	0.000A	0.0W
54	2024/10/22 10:10:16	22.94V	0.000A	0.0W
55	2024/10/22 10:10:17	22.94V	0.000A	0.0W
56	2024/10/22 10:10:18	22.94V	0.000A	0.0W
57	2024/10/22 10:10:19	22.94V	0.000A	0.0W
58	2024/10/22 10:10:20	22.94V	0.000A	0.0W
59	2024/10/22 10:10:21	22.94V	0.000A	0.0W
60	2024/10/22 10:10:22	22.94V	0.000A	0.0W
61	2024/10/22 10:10:23	22.94V	0.000A	0.0W
62	2024/10/22 10:10:24	22.94V	0.000A	0.0W
63	2024/10/22 10:10:25	22.94V	0.000A	0.0W

③ Data Waveform: Click to enter the data waveform interface.



Click the dropdown menu to select the file to display.



Data refresh button - click to refresh the latest data during the recording process.

A screenshot of the 'Data' table, which is a scrollable table with the following content:

Time(s)	Voltage(V)	Current(A)	Power(W)
2024/10/30 15:09:20	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:21	00.00V	0.000A	0.0W
2024/10/30 15:09:22	00.00V	0.000A	0.0W
2024/10/30 15:09:22	00.00V	0.000A	0.0W

To display all the data in the file, you can scroll the wheel to view it.

3.2.4.2 Increment



Incremental setting - after setting the target value, the voltage and current of setting will increase incrementally and be used for fine-tuning operations, as shown in the following figure:



3.2.4.3 Current Range



Click to switch the current level, and you can choose between A level or mA level.

3.2.4.4 OCP/OVP



Corresponding OCP or OVP protection values can be set. Click to enable as shown in the following figure:

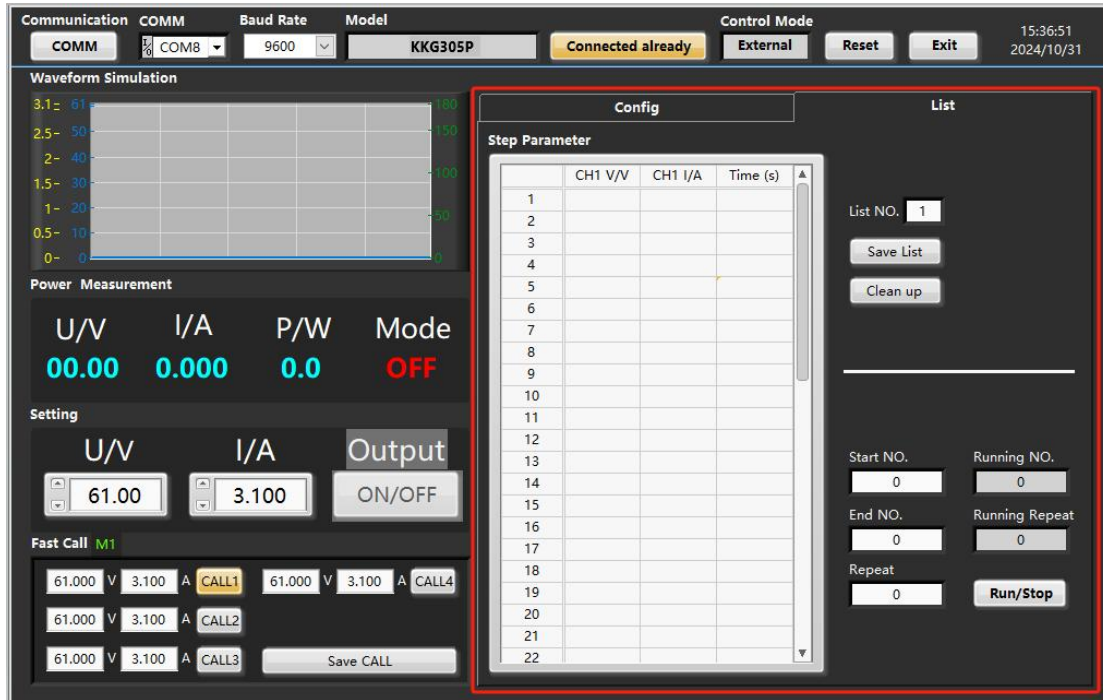


3.2.4.5 Others



Lock or unlock - the switch lights ON when locked;
 Sense remote compensation - the switch lights ON when turned on;
 EXON external port triggered - the switch lights ON when turned on;
 Analog control - you can choose OFF, V, I, and Both.

3.2.5 List



- ① Step Parameter - settings of step parameters, which can set the voltage, current, and duration;
- ② List NO. - file number, which can save 9 parameter files;
- ③ Save List - it can save all parameters in the current Step Parameter. Each modification requires clicking, making it easy to recall the parameter file;
- ④ Clean up - clear all parameters in the current Step Parameter;
- ⑤ Start NO. - what step should we start from;
- ⑥ End NO. - which step does it end at;
- ⑦ Repeat - loop times of the entire parameter file;
- ⑧ Running NO. - display the current running steps;
- ⑨ Running Repeat - displays the current times of cycles;
- ⑩ Run/Stop - run or stop.