

multicomp PRO

Power Supply Control Software

User manual

(For models with USB)

MP710079

MP710080

MP710081

MP710083

1. Introduction

This is a PC software which provide remote control panel for Multicomp Pro power supply with USB or Ethernet connectivity.

For power supply with USB connection, you will need to install the USB driver. The USB driver is included in CDROM that comes with your power supply. Or you can download it from the product page on the Farnell web site.

Supported Power Supply Model

MP710079
MP710080
MP710081
MP710083

Supported OS System

Windows 7 (32-bit and 64-bit), Windows 10 (32-bit and 64-bit)

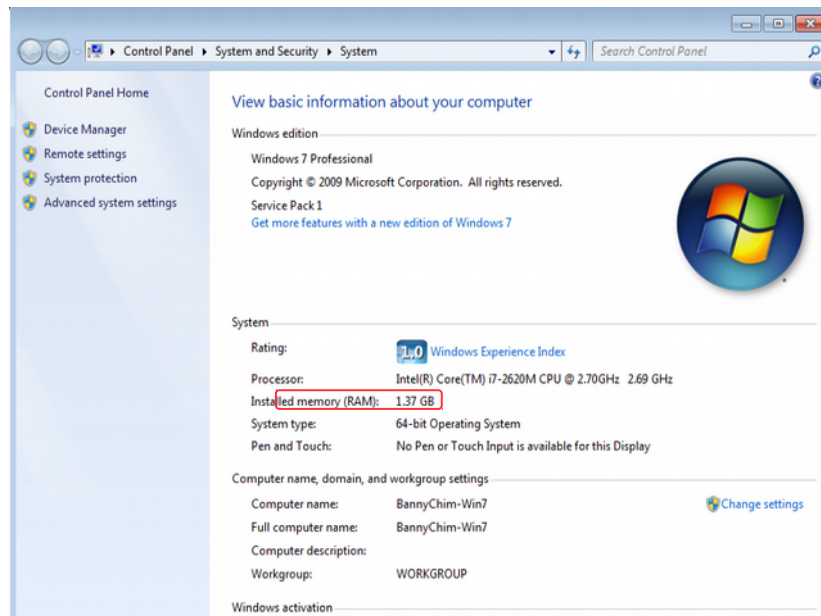
USB driver installation

The USB driver should be installed before the power supply can be connected to PC through USB connection. The USB driver is located in folder start with "USB CP210xDrivers" in CDROM.

For 32-bit Windows
run "CP210xVCPInstaller_x86.exe"

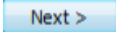
For 64-bit Windows
run "CP210xVCPInstaller_64.exe"

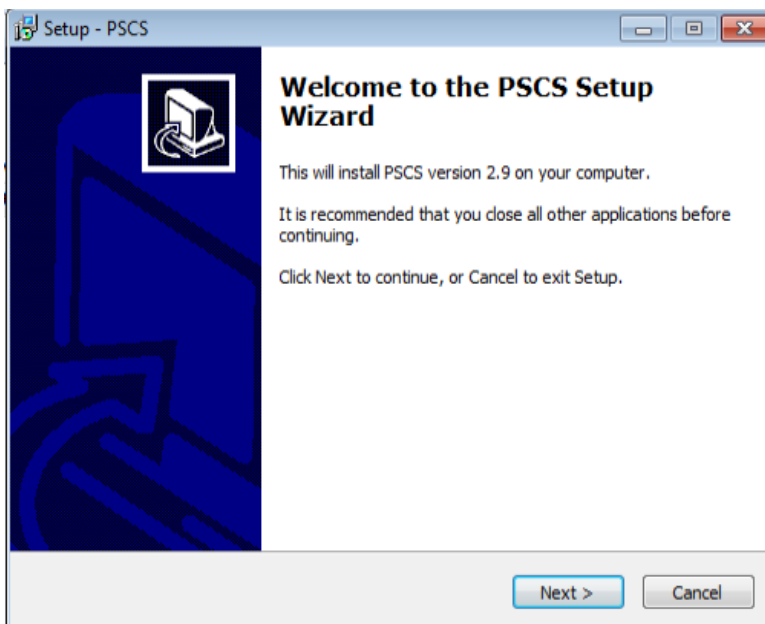
The system properties information on your PC shows whether the OS is 32 or 64 bit.




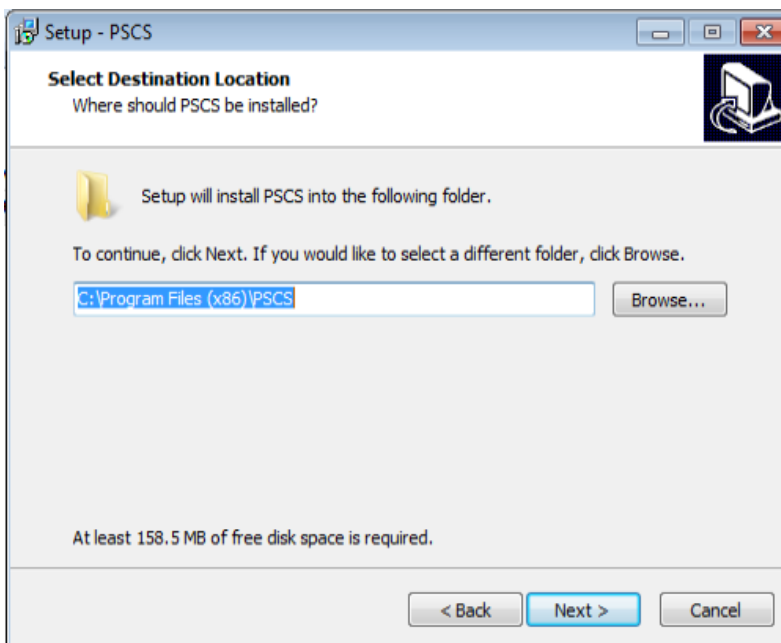
PC software installation

The file start with “pscs_setup” is the installation program for PC software.

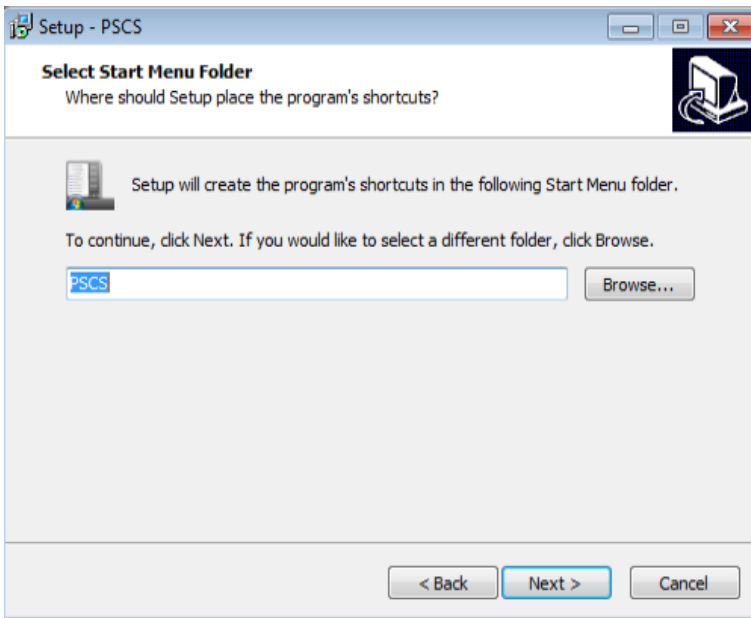
a) Run file “pscs_setup.exe” and click  to continue.



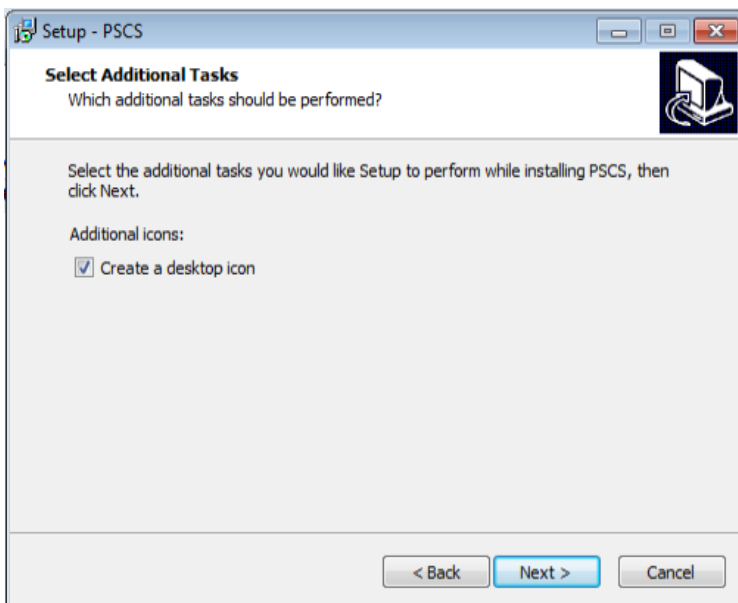
b) Select the destination location for software installation and click  to continue.



c) Select Start Menu Folder and click **Next >** to continue.



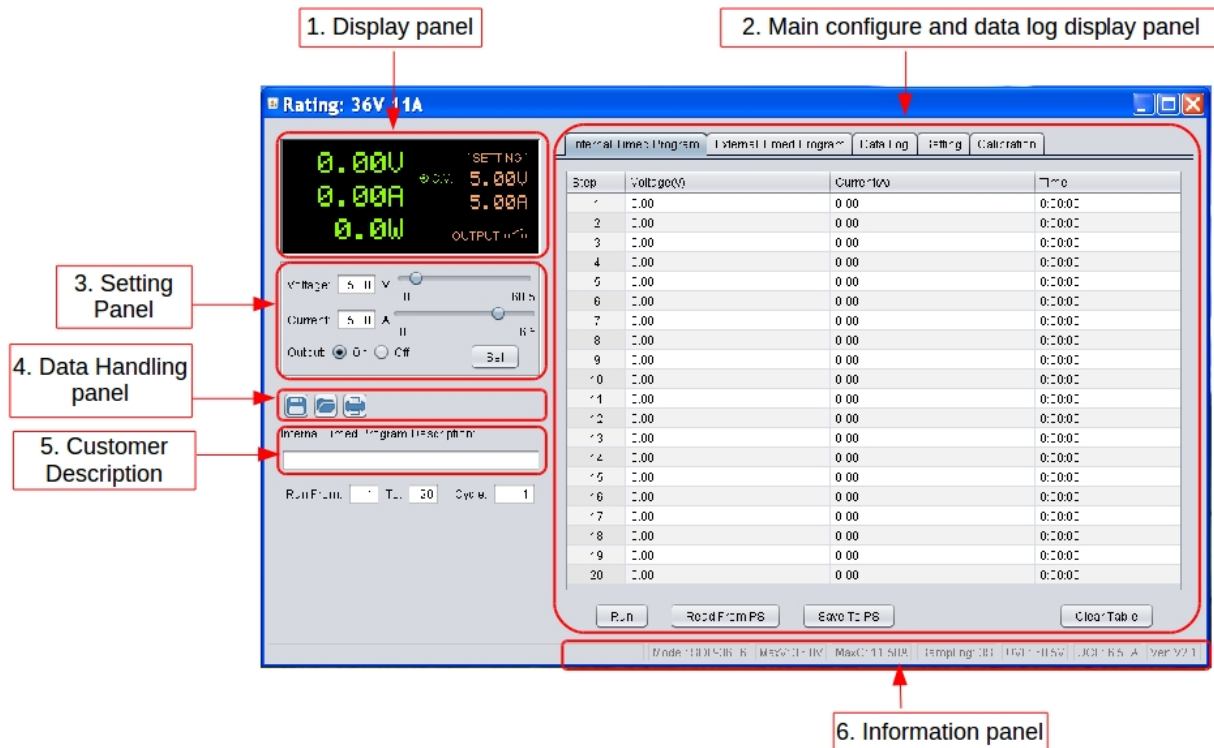
d) Click the check box if you would like to create a desktop icon. Then click **Next >** to continue.



e) Click **Install** to start install of PC software.

2. PC software usage

2.1 Main Display



The Main interface divided into 6 panels.

1. Display panel – use to display real-time information of power supply.
2. Main configuration and data log display panel – use to change general setting of program and display data log.
3. Setting panel – use to set incident voltage value, current value and output On/Off.
4. Data handling panel – use to save, load and print data.
5. Description input panel – use to enter description for wave form
5. Information panel – use to display Maximum voltage/ current, sampling time, upper voltage/ current limit and software version.

2.2 Connect to Power supply

Before edit any connection setting, the software will not connect to power supply. It just show following display. The first thing you need to do is to edit correct connection for your system. If there are saved connection setting in software. The software will search power supply and connect automatically.

The 'Rating:' window displays a table with 5 columns: Step, Voltage(V), Current(A), Time, and Output. The table contains 19 rows of data, all with 0.0 values for Voltage, Current, and Time, and a checked 'Output' box. The window also includes a 'Set' button, a 'Wave Form Generator Description' text area, and a status bar at the bottom showing 'MaxV: 0.0V', 'MaxC: 0.00A', 'Sampling: 3S', 'UVL: 0.0V', 'UCL: 0.00A', and 'Ver: V2.1.7'.

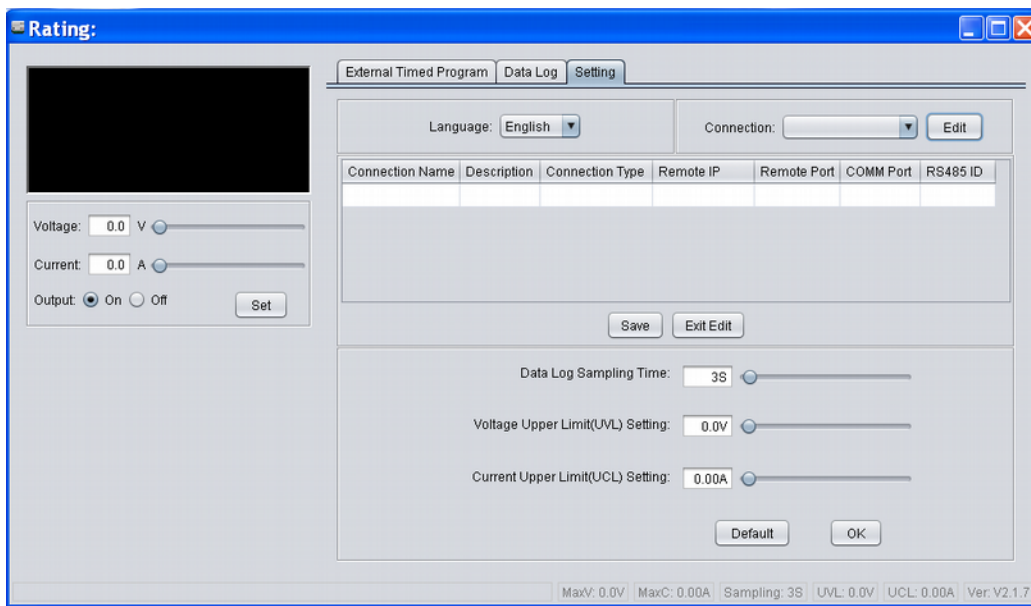
Step	Voltage(V)	Current(A)	Time	Output
1	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
2	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
3	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
4	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
5	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
6	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
7	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
8	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
9	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
10	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
11	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
12	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
13	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
14	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
15	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
16	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
17	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
18	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>
19	0.0	0.0	0:00:00	<input checked="" type="checkbox"/>

Connection editing steps

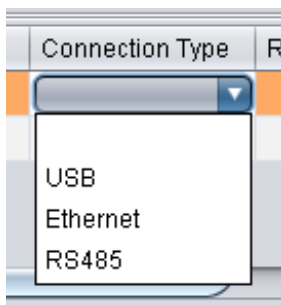
i. Select Setting tab

The 'Setting' tab window displays configuration options. It includes a 'Language' dropdown set to 'English', a 'Connection' dropdown with an 'Edit' button, and three sliders for 'Data Log Sampling Time' (set to 3S), 'Voltage Upper Limit(UVL) Setting' (set to 0.0V), and 'Current Upper Limit(UCL) Setting' (set to 0.00A). The window also features 'Default' and 'OK' buttons.

- ii. Click on **Edit** to start edit connection. The connection edit panel come up.



- iii. Enter connection name for this connection setting and description.
e.g. PS-1
- iv. Select connection type for your system. It allow configure for USB, Ethernet and RS485.



- v. Enter addition connection parameters.

For Ethernet, enter IP address and remote port number.

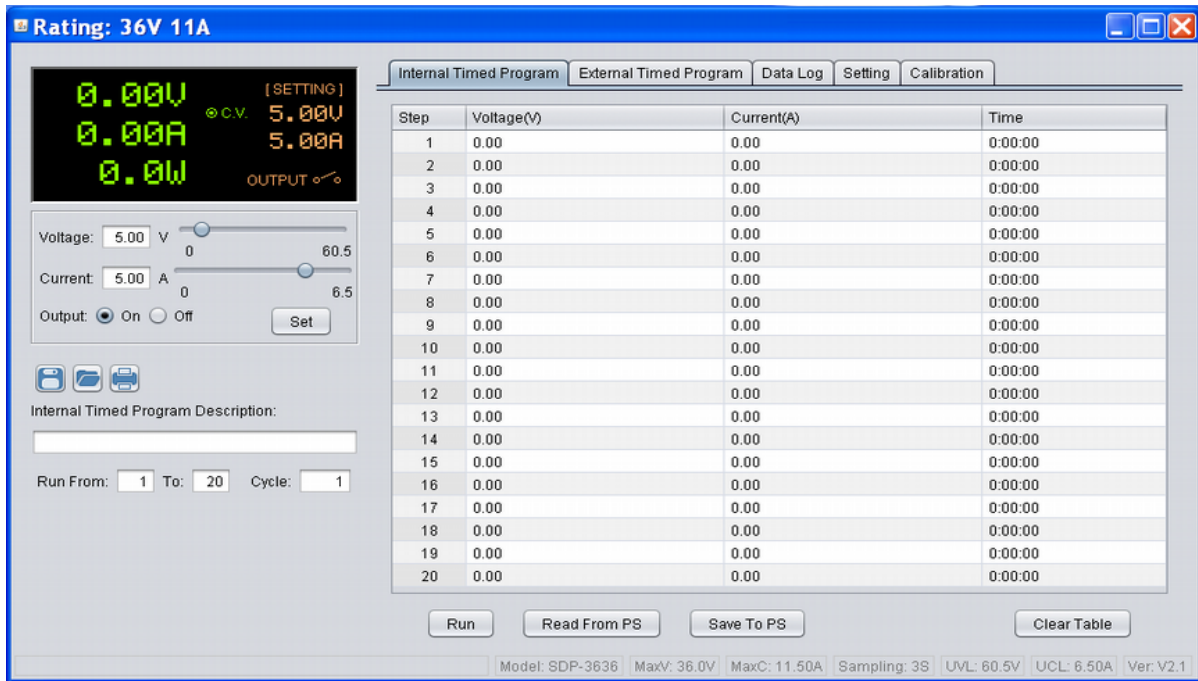
(It can be check in menu → Display Information → LAN Information. Please refer to hardware manual).

Remote IP	Remote Port
192.168.1.242	8888

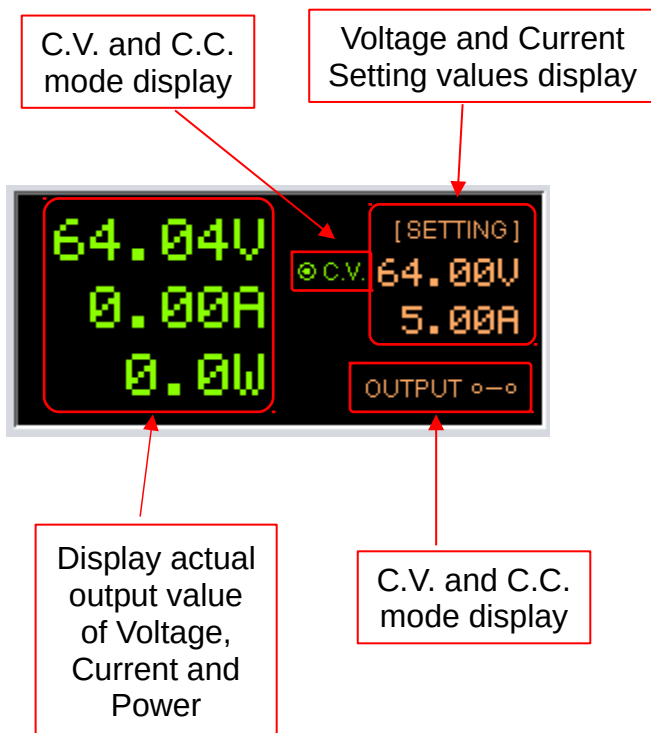
For USB, enter COM port. The COM port can be find in device manager of Windows system after driver installed.
For RS485, additional to COM port. Input RS485 ID for your system as well

- vi. Then Click **Save** to save setting then click **Exit Edit** to exit the edit page.

After save configuration, the power supply connect automatically. You will find different tabs will be shown for different models of power supply connected.



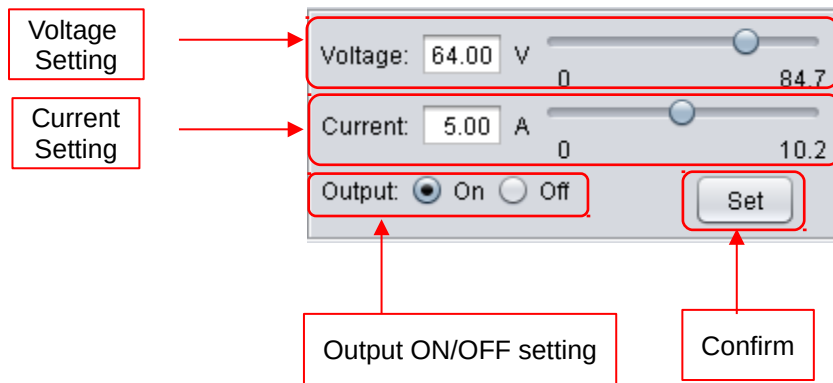
2.3 Display panel



The display show following information

- Output Voltage value
- Output Current value
- Output Power value
- Output On/Off status
- C.V./ C.C. Model
- Setting values

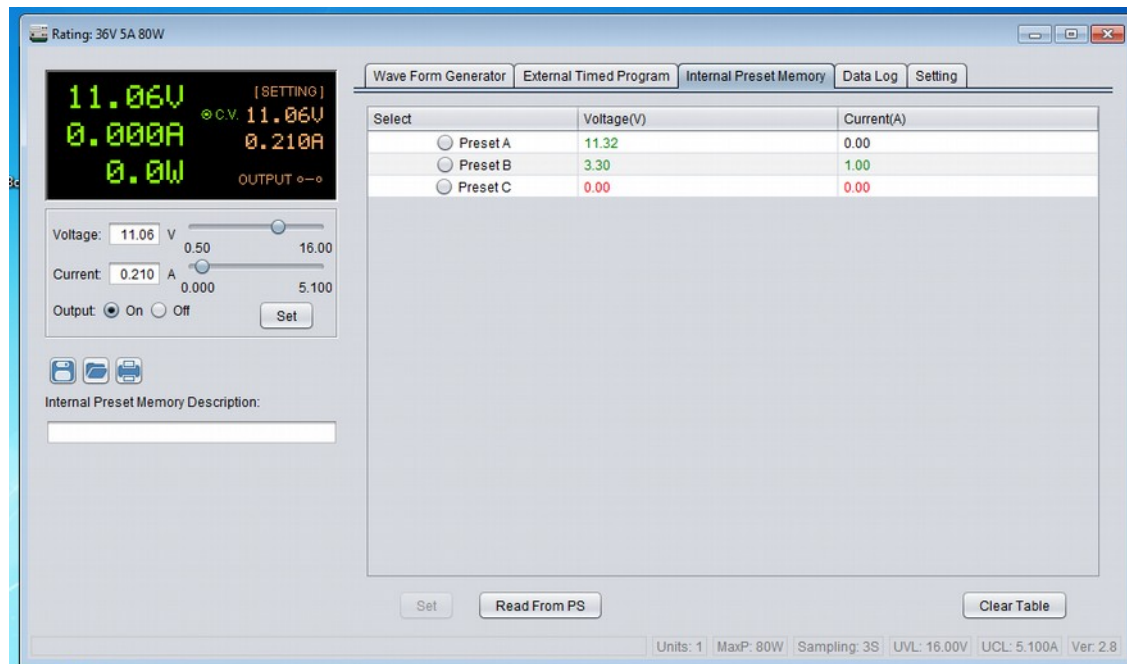
2.4 Set output voltage value, current value and ON/OFF status



It allow direct input voltage value and current value in setting area or use slide bar to adjust value. After adjust the value, then click **Set** button to confirm setting.

2.5 Internal Preset Memory

If the power supply models has internal preset memory, this tab will be shown. You can adjust value of memory. Then click **Set** button to save the value back to power supply.

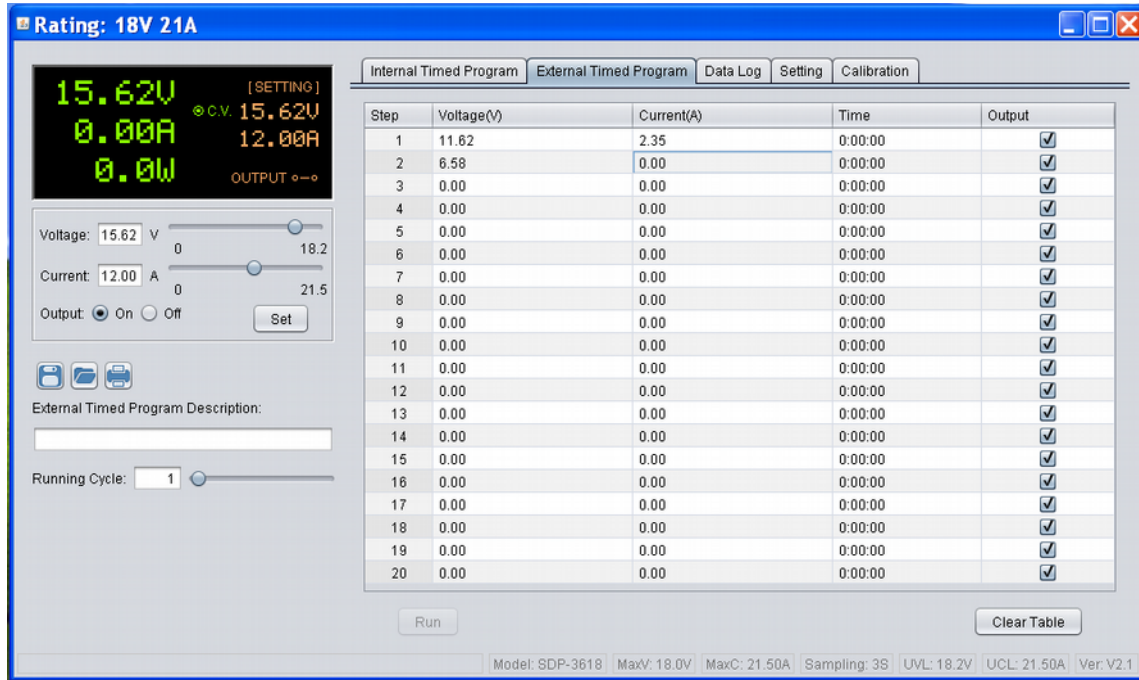


You can click **Read From PS** to read internal preset memory from power supply.

2.6 External Timed Program

Select External Timed Program tab to operate with 20 user define steps program. It can define Voltage, Current, running time and Output ON/OFF for each step. User can setting running cycle for the Timed Program. External Timed Program is completely controlled by PC, PC counts the time and changes voltage and current of power supply.

It has an External Timed Program Description space for user to enter description for the setting. The description will be saved when user select to save setting into CSV file.



- Double click on the cell that you would like to set value. For example Step 2 voltage.
- Slide the bar to configure the value.

Step	Voltage(V)	Current(A)	Time	Output
1	22.16	2.00	0:00:04	✓
2	11.08	0.00	0:00:00	✓
3	0.00	0.00	0:00:00	✓
4	0.00	0.00	0:00:00	✓

- Set time for this step to be running. The time range is between 0 to 9hours 59 minutes 59 seconds. You can click up/down button to change value or directly input value. If the time value is set to 0, this step will be skipped.

Time	Output
5:00:00	✓
9:59:59	✓
0:00:00	✓

- Select running cycle between 0-999. You can use slide bar to select or directly input value in text box. Input 0 means run the program forever.

Running Cycle:

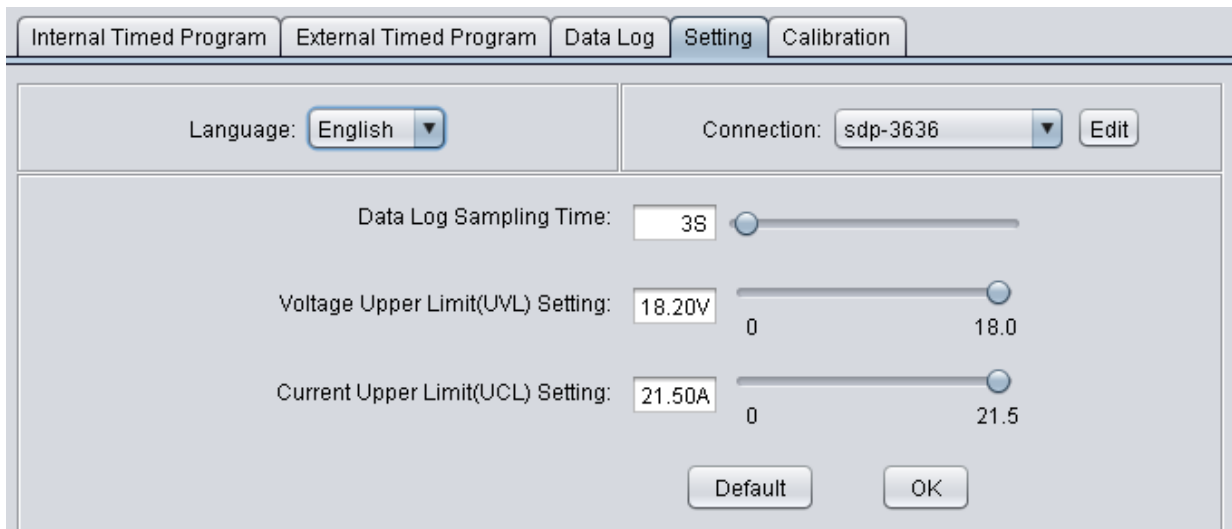
- Click button to start running cycle.
- In between program running cycle, click button to stop program.
- Click to clear the setting.

2.7 Set Upper limited of Voltage and Current

Select Setting tab to configure Voltage Upper Limit (UVL) and Current Upper Limit (UCL). If you set the UVL and UCL, all setting in General Output setting, Internal Timed Program and External Timed Program cannot higher than this limit. You will find the setting become red to alert you it is over the UVL or UCL.

In the setting tab,

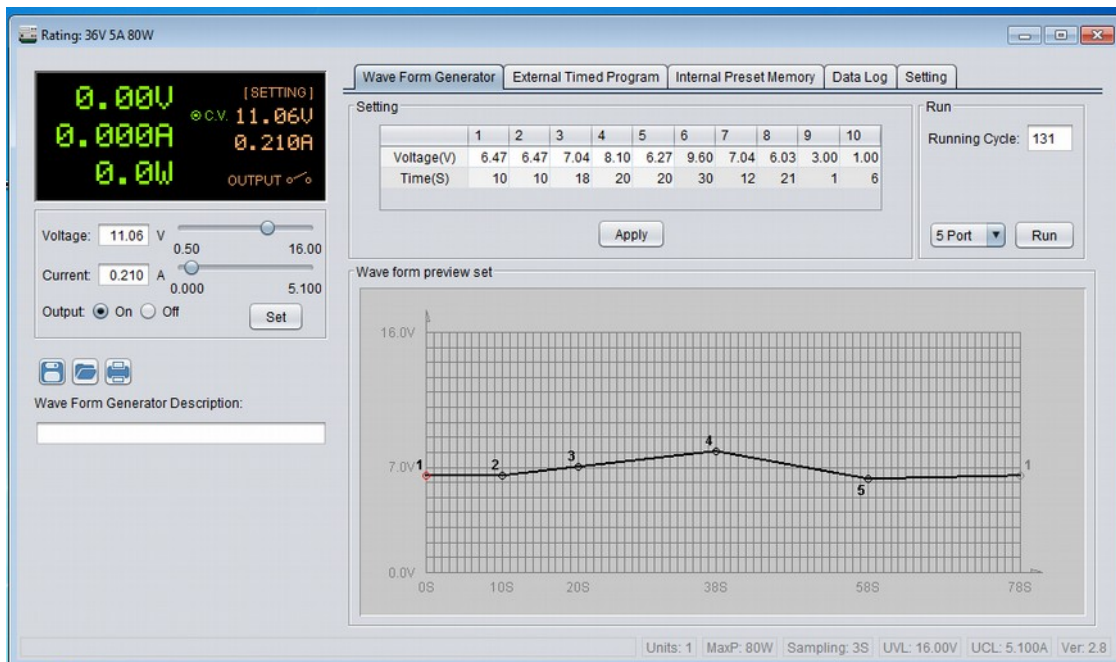
- Direct input your setting value or using slide bar to configure for the UVL an UCL.



- Click **OK** button to save the setting to power supply

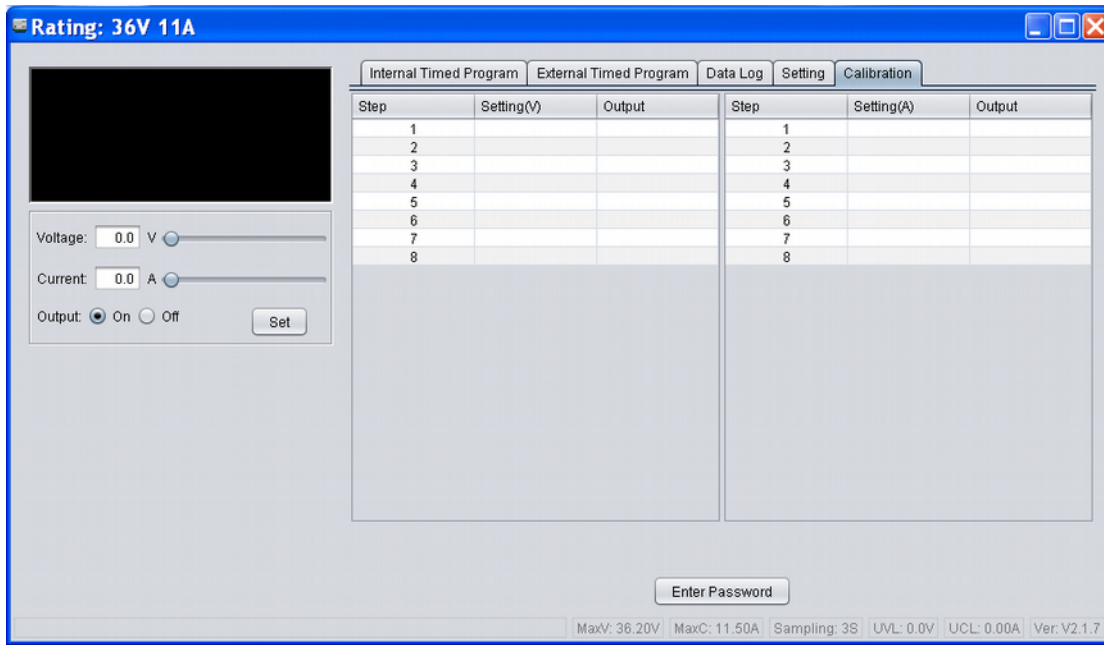
2.8 Wave Form Generator

The MP710083 has wave form generation support. The Wave Form Generator tab will be shown after connected to these power supply.

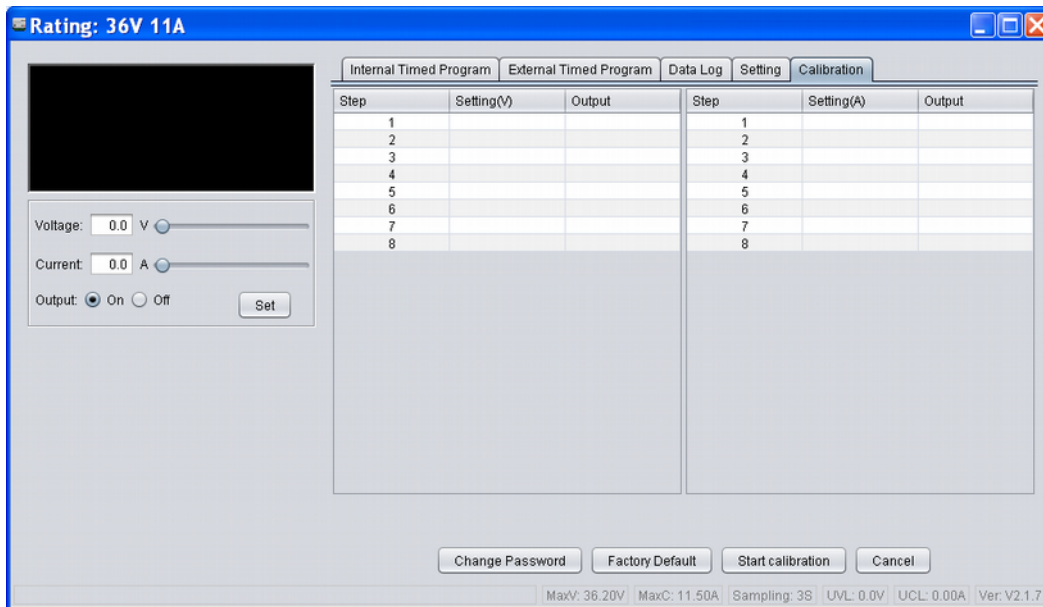


2.9 Calibration

If the power supply support calibration, you will find the Calibration tab is shown.



- Enter password. The Default password is “password”



Click “Start calibration” to start calibrate power supply. The system will show setting value for voltage and you input actual output value which measured by multi-meter. After calibrate voltage, it start calibrate the current. It show output current setting and you input actual output value measured by multi-meter.