

PC Control software User Manual for SDP-3618 / 3636 / 3660

1. Introduction

The USB driver and PC software can be installed from virtual CDROM. When the SDP is connect to PC through USB , an vitural CDROM can be find under PC file manager. It need to install both driver and PC software.

System requirement

Support OS : Windows 7 (32-bit and 64-bit)
Memory : at least 512MB
Hard disk space : at least 200MB free space


USB driver installation program: "<CDROM Drive>:\driver\Driver-win32.exe" or "<CDROM Drive>:\driver\Driver-win64.exe"

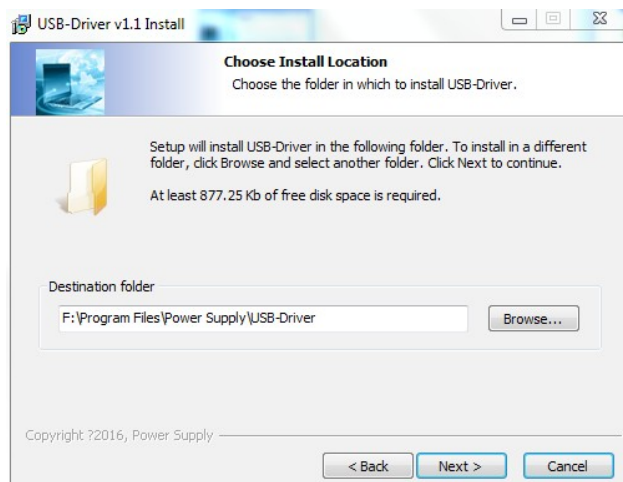
PC control software installation program: "<CDROM Drive>:\pcsoft\pscs_setup.exe"

2. USB driver installation


- a. This step is to extract driver from program. Double click on driver installer program.



- b. Click  to process.



- Browse path for driver installation. Select default setting by click  .

- c. Click  to start driver installation.




- d. Click  to close this wizard.



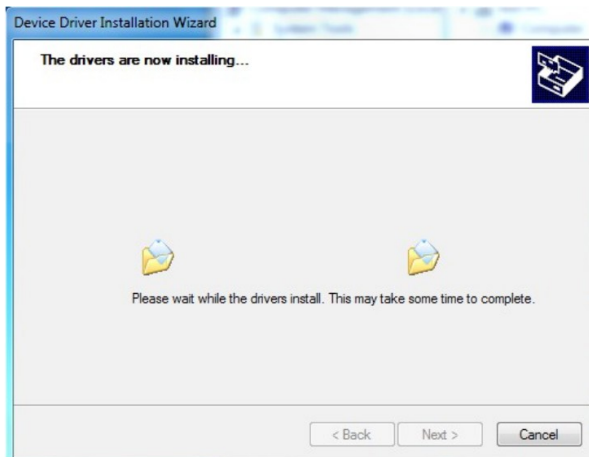
- e. This step is to install driver into windows system. Click on the driver icon on the status bar of you window.



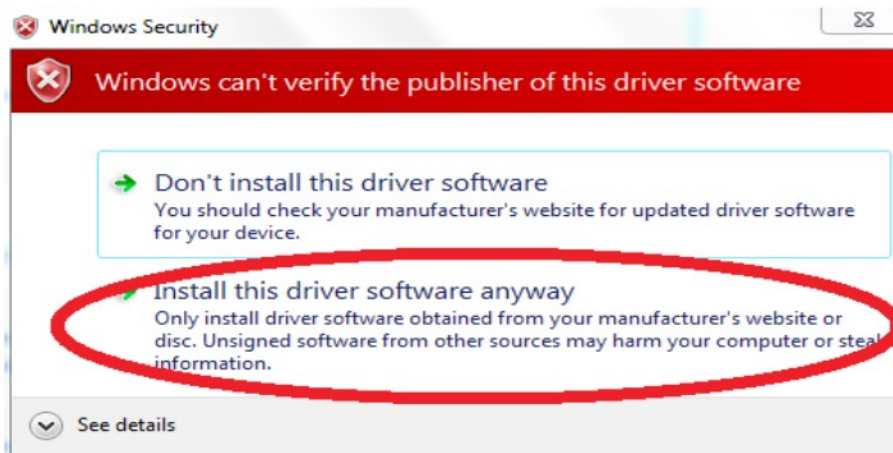
- f. Click  to process.



- The following process screen show.



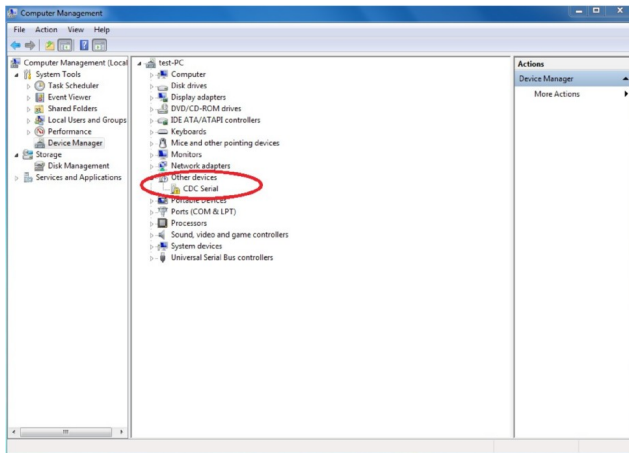
g. Select “Install this driver software anyway” in security warning.



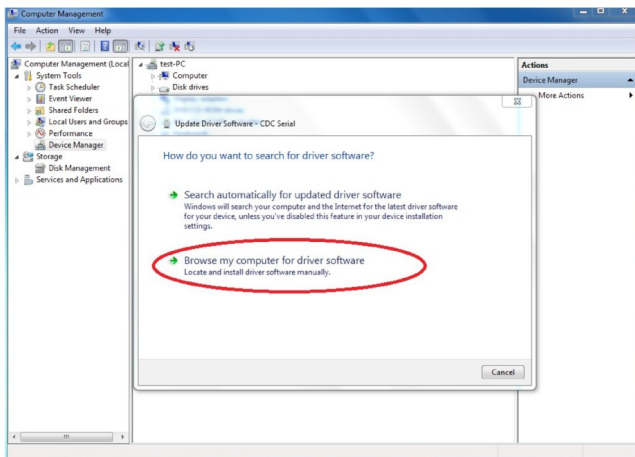
h. Click **Finish** to close this wizard.



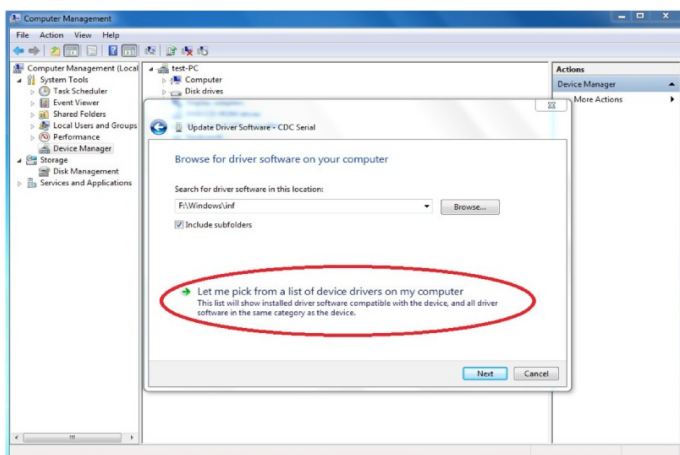
- i. Connect SDP to USB port of your PC.
- j. Right click on “Computer” and select “Manage” to open following screen. You will find SDP is mapped as “CDC serial” driver but the driver is not mapped correctly.



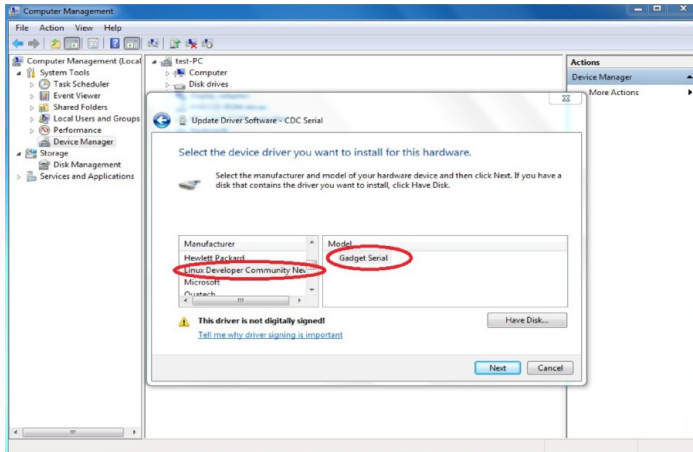
k. Right click on “CDC Serial” to map driver. Select “Browse my computer for driver software” in following screen.



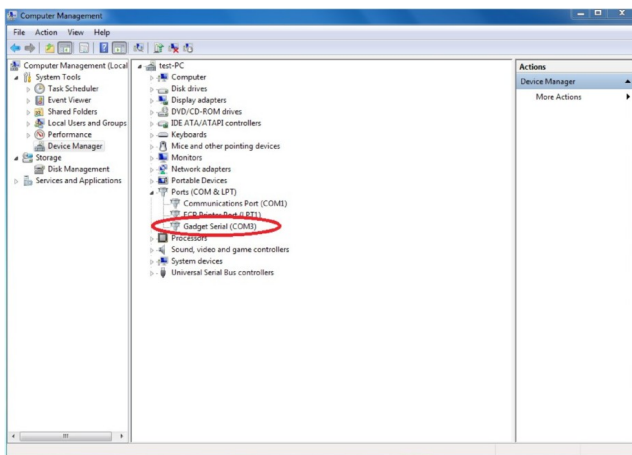
l. Select “Let me pick from a list of device drivers on my computer” and click [Next >](#) in following screen.



m. Select “Linux Developer Community” in list.

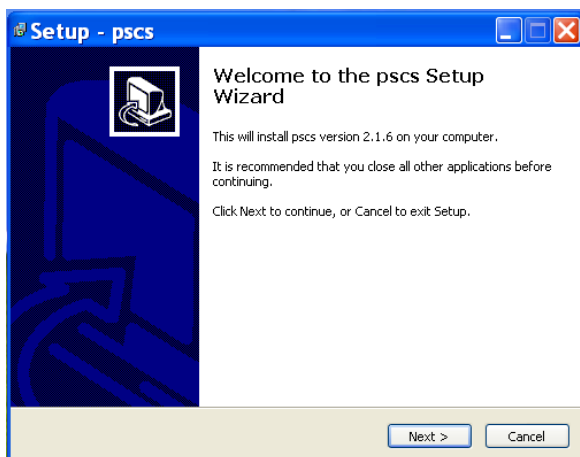


n. Click Yes to accept and close when finish. Then you can find SDP is mapped to COM port. (e.g COM3)



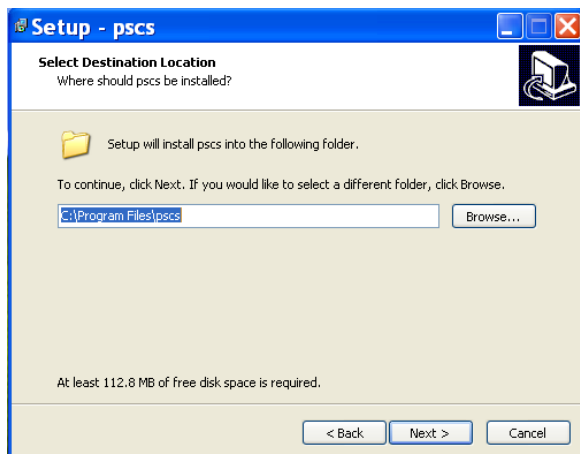
3. PC software installation

a. Run “<CDROM Drive>:\pcsoft\psecs_setup.exe” to start installation program.

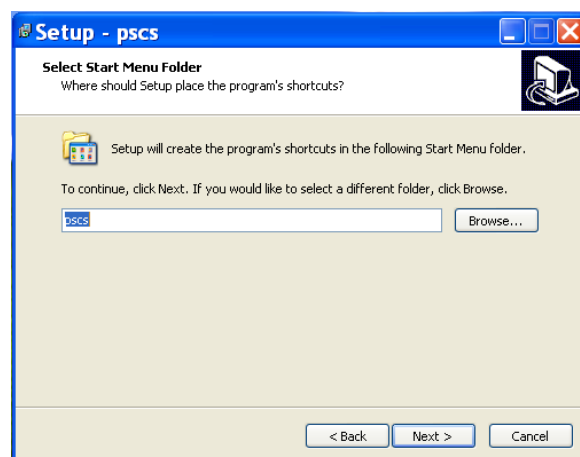


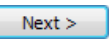
- Click  to continue setup.

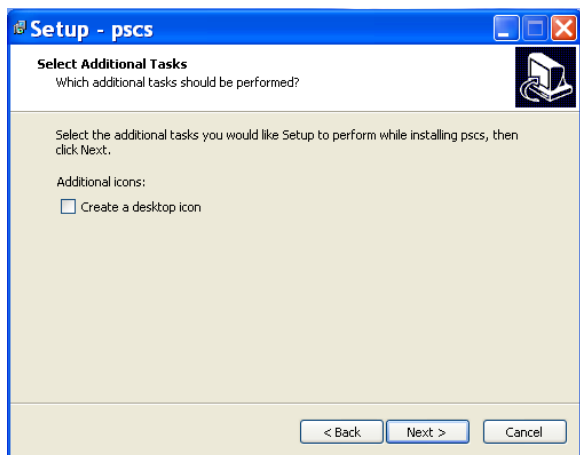
- b. Select destination location for installation and click  to continue.



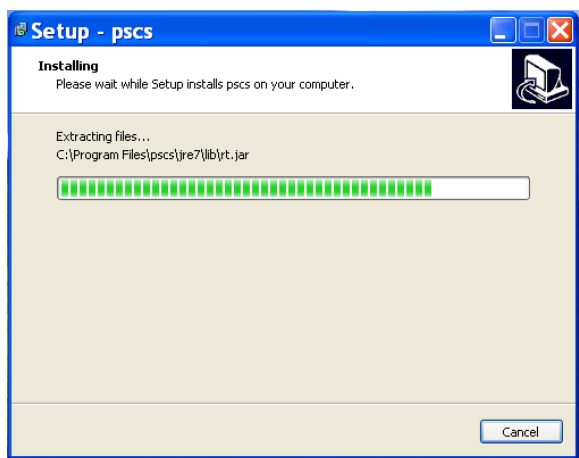
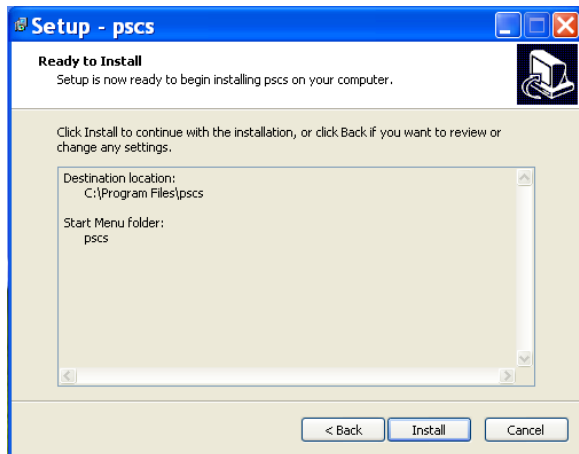
- c. Input the name for program show in Start Menu folder and click  to continue.

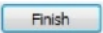


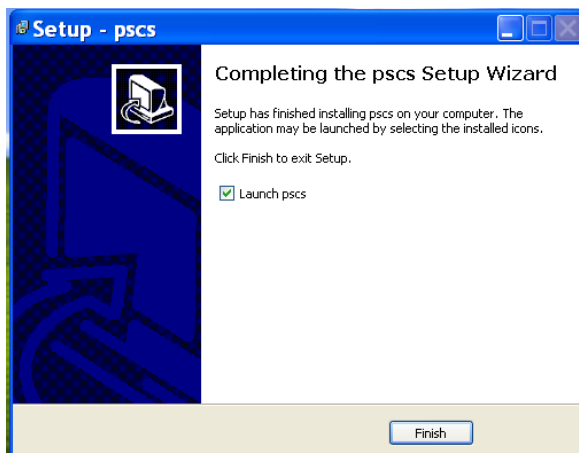
- d. Select to create icon on desktop or not. Then click  to continue.



- e. Click  to start installation.

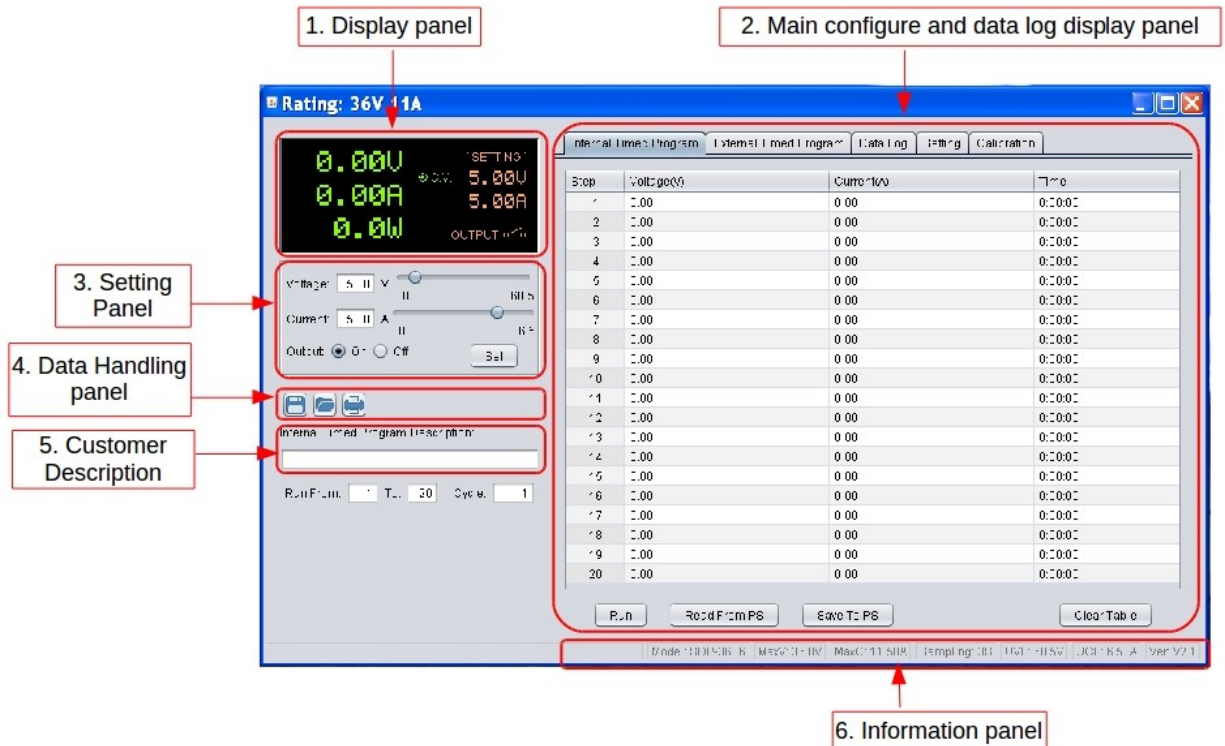


- f. Click  to close.



4. PC software usage

4.1 Main Display

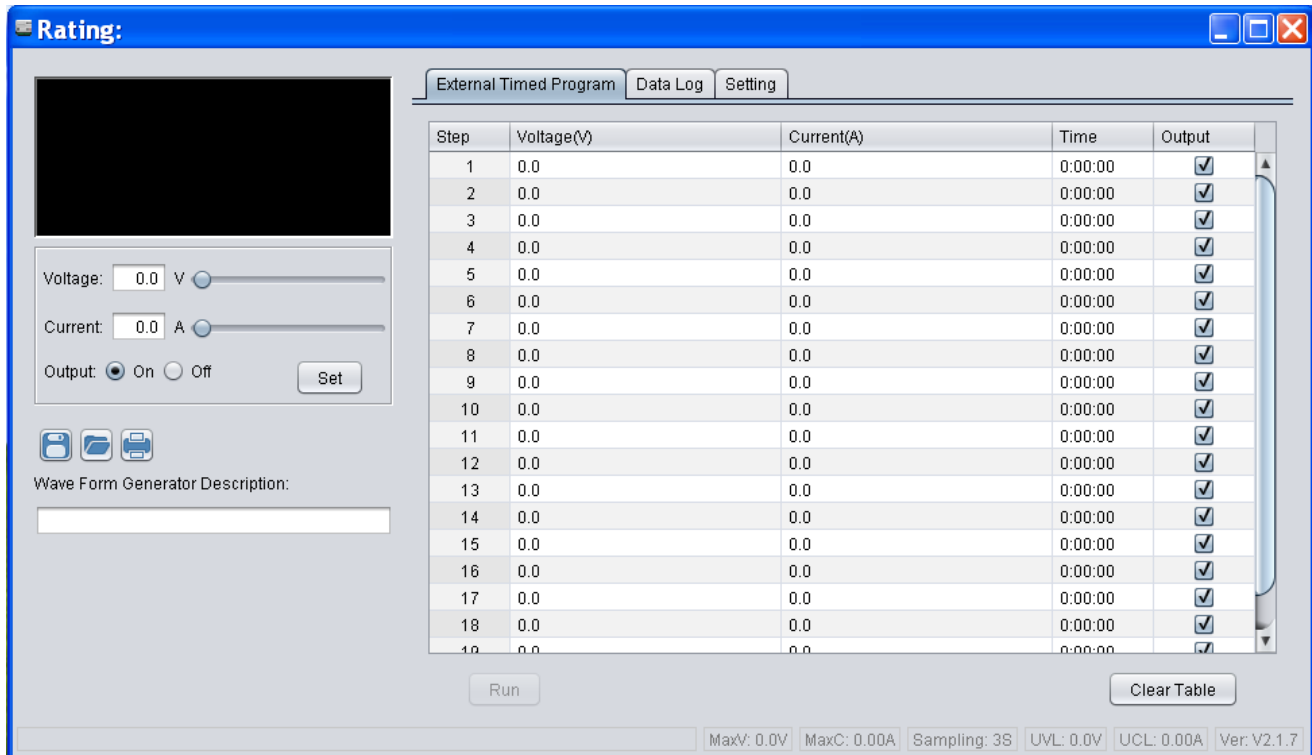


The Main interface divided into 6 panels.

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.

4.2 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.

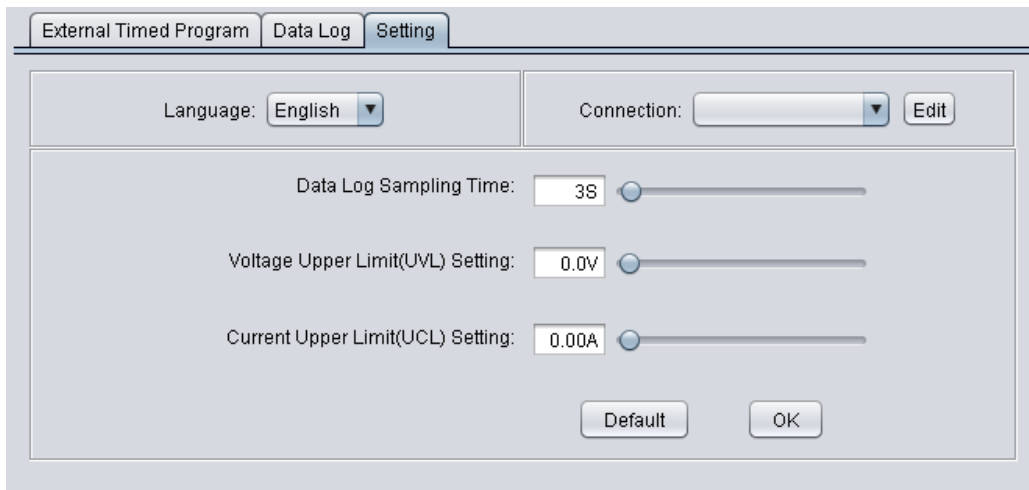


The 'Rating:' window displays a table with 19 steps, each with Voltage(V), Current(A), Time, and Output status. The Output column shows checkboxes, all of which are checked. The window also includes a 'Set' button, a 'Run' button, and a 'Clear Table' button. The status bar at the bottom shows 'MaxV: 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

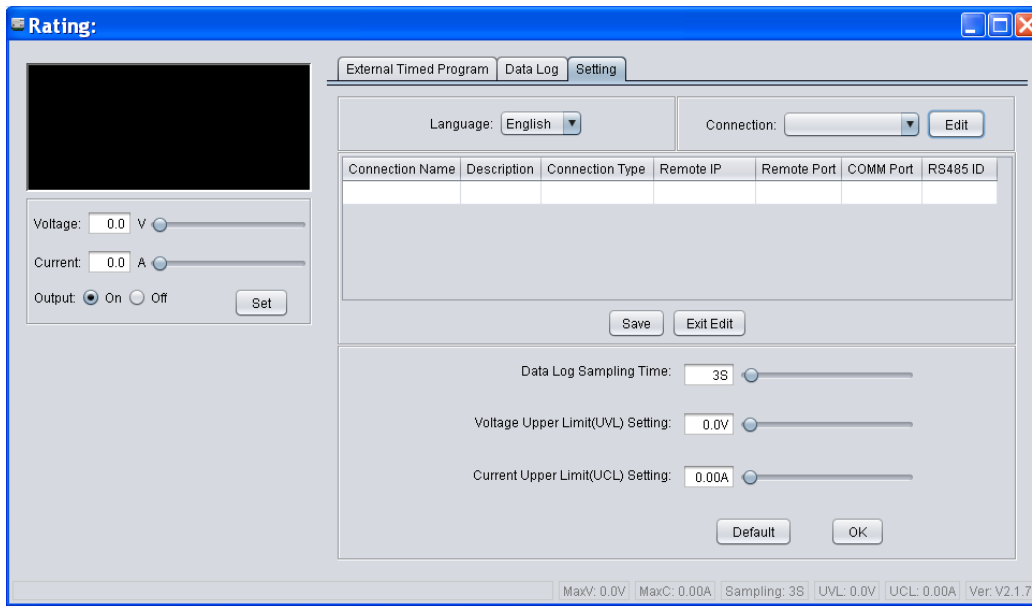
- Select Setting tab



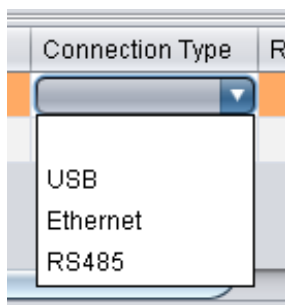
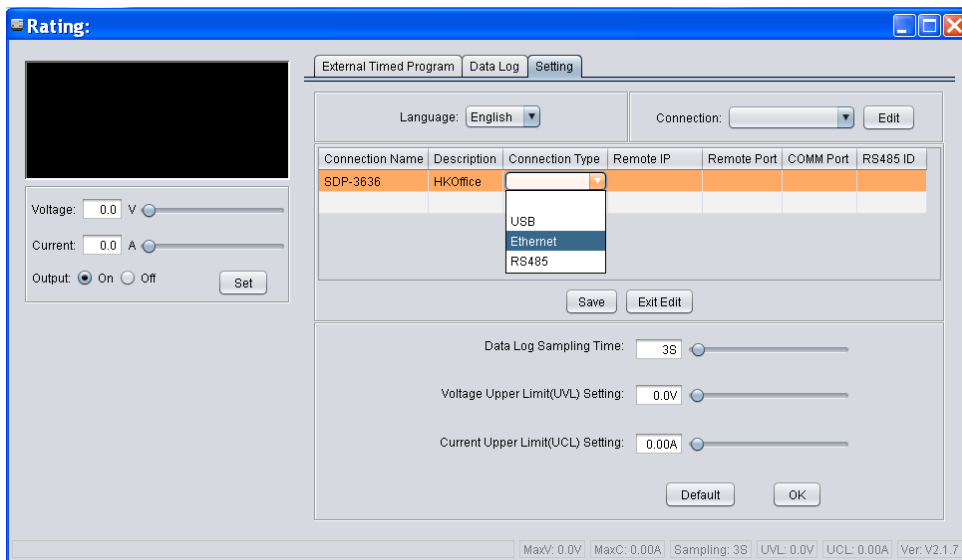
The 'Setting' tab window displays the following settings:

- Language: English
- Connection: [Dropdown Menu] [Edit]
- Data Log Sampling Time: 3S
- Voltage Upper Limit(UVL) Setting: 0.0V
- Current Upper Limit(UCL) Setting: 0.00A
- Buttons: Default, OK

- 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. SDP-3660
- 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 SDP 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.

Port	COMM Port	RS
	<div>COM3</div>	

For RS485, additional to COM port. Input RS485 ID for your system as well

- vi. Then Click  to save setting then click  to exit the edit page.

After save configuration, the power supply connect automatically. The display change as follow.

Rating: 36V 11A

0.00V
0.00A
0.0W

[SETTING]
5.00V
5.00A
OUTPUT

Voltage: 5.00 V

Current: 5.00 A

Output: ☒ On ☐ Off

Internal Timed Program Description:

Run From: 1 To: 20 Cycle: 1

Internal Timed Program

Step	Voltage(V)	Current(A)	Time
1	0.00	0.00	0:00:00
2	0.00	0.00	0:00:00
3	0.00	0.00	0:00:00
4	0.00	0.00	0:00:00
5	0.00	0.00	0:00:00
6	0.00	0.00	0:00:00
7	0.00	0.00	0:00:00
8	0.00	0.00	0:00:00
9	0.00	0.00	0:00:00
10	0.00	0.00	0:00:00
11	0.00	0.00	0:00:00
12	0.00	0.00	0:00:00
13	0.00	0.00	0:00:00
14	0.00	0.00	0:00:00
15	0.00	0.00	0:00:00
16	0.00	0.00	0:00:00
17	0.00	0.00	0:00:00
18	0.00	0.00	0:00:00
19	0.00	0.00	0:00:00
20	0.00	0.00	0:00:00

Run

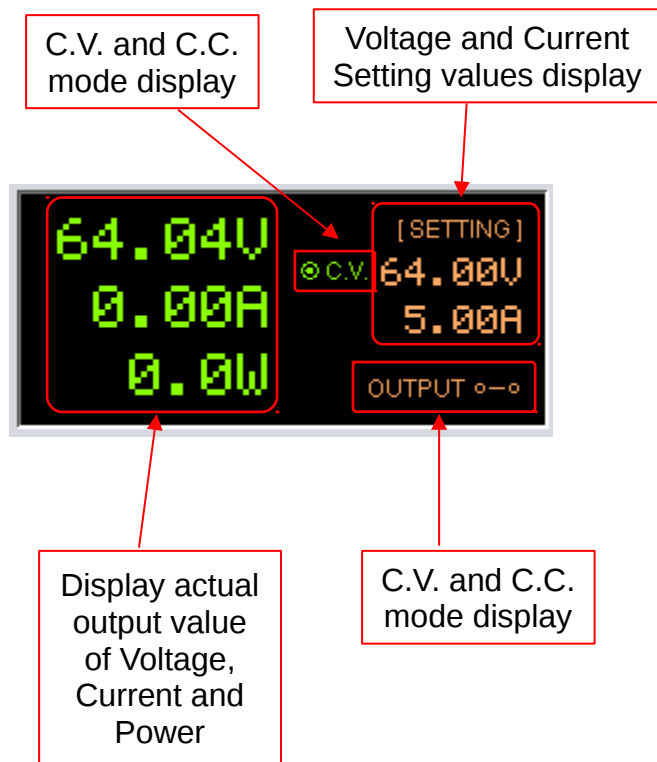
Read From PS

Save To PS

Clear Table

Model: SDP-3636 MaxV: 36.0V MaxC: 11.50A Sampling: 3S UVL: 60.5V UCL: 6.50A Ver: V2.1

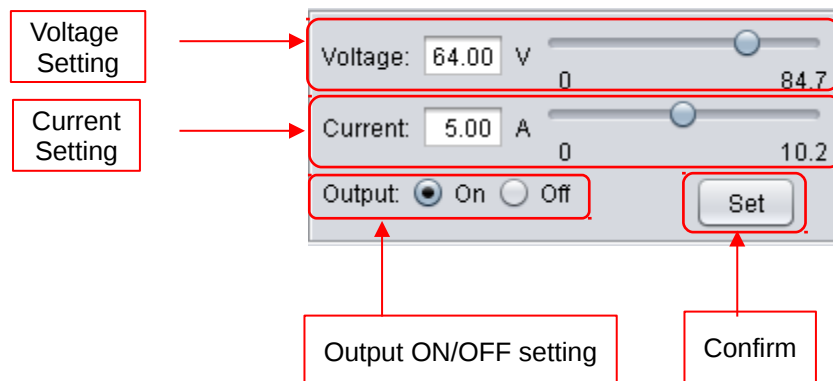
4.3 Display panel




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

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

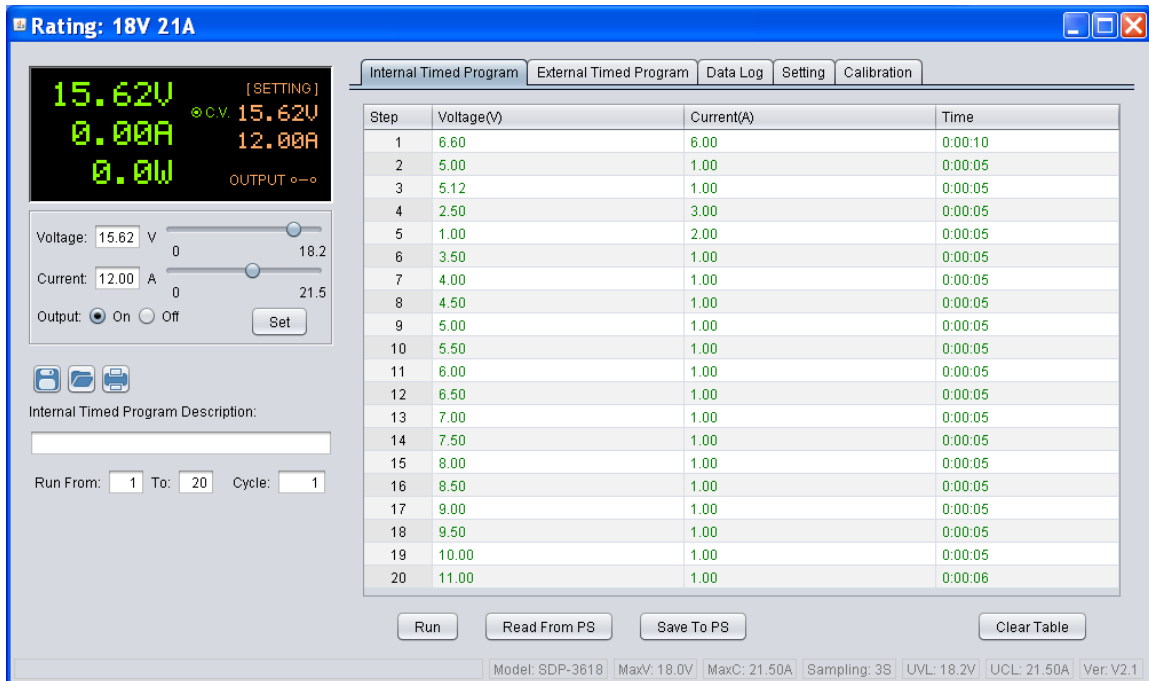


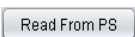
It allow direct input voltage value and current value in setting area or use slide bar to adjust value. After adjust the value, then click  button to confirm setting.

4.5 Internal Timed Program

Select Internal Timed Program tab to operate with 20 internal steps program. It can define Voltage, Current and running time for each step. User can setting running cycle for the Timed Program for specified steps range.

It has an Internal 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.

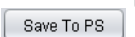


- Click  to read internal setting from power supply.
- Double click on the cell that you would like to set value. For example Step 1 voltage.
- Slide the bar to configure the value.

Step	Voltage(V)	Current(A)	Time
1	6.60	6.00	0:00:10
2	5.00	1.00	0:00:05
3	5.12	1.00	0:00:05

- 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. Slide the bar to configure the value.

Time
0:00:10
0:00:05
0:00:05

- Click  to save the setting back to power supply.
- Input range of steps and cycle you would like to run from internal timed program.

Run From: To: Cycle:

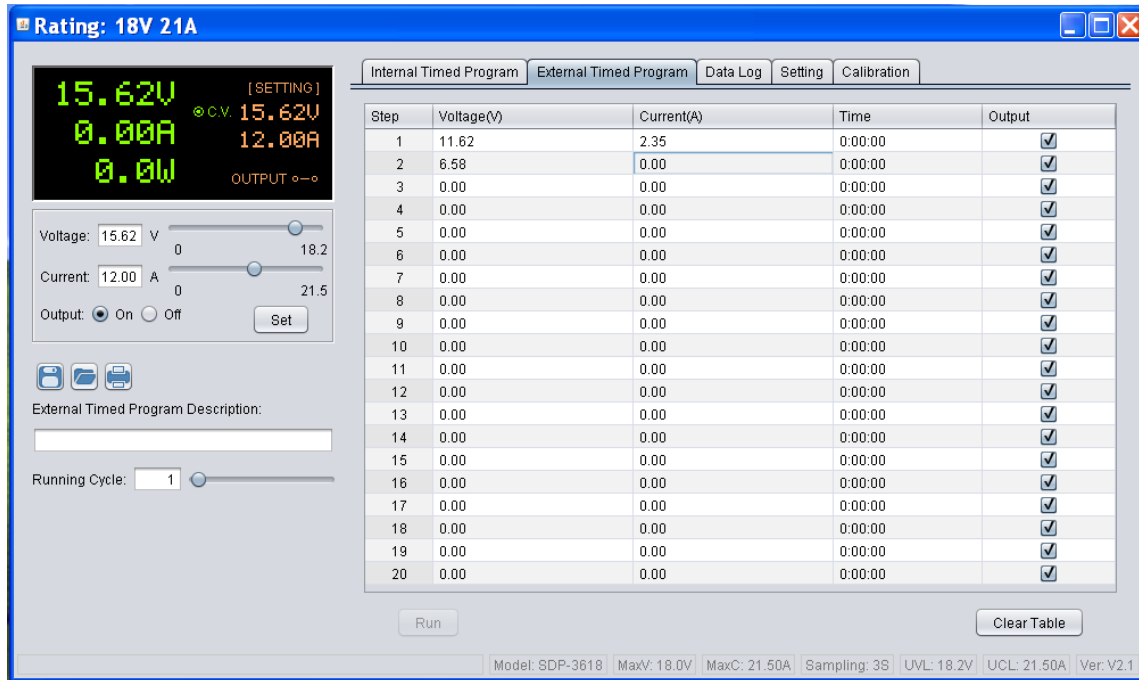
- Click  to execute the selected range and number of cycle.

- Click  to clear the setting.

4.6 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	<input checked="" type="checkbox"/>
2	11.08	0.00	0:00:00	<input checked="" type="checkbox"/>
3	0.00	0.00	0:00:00	<input checked="" type="checkbox"/>
4	0.00	0.00	0:00:00	<input checked="" type="checkbox"/>


- 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	<input checked="" type="checkbox"/>
9:59:59	<input checked="" type="checkbox"/>
0:00:00	<input checked="" type="checkbox"/>

- 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.

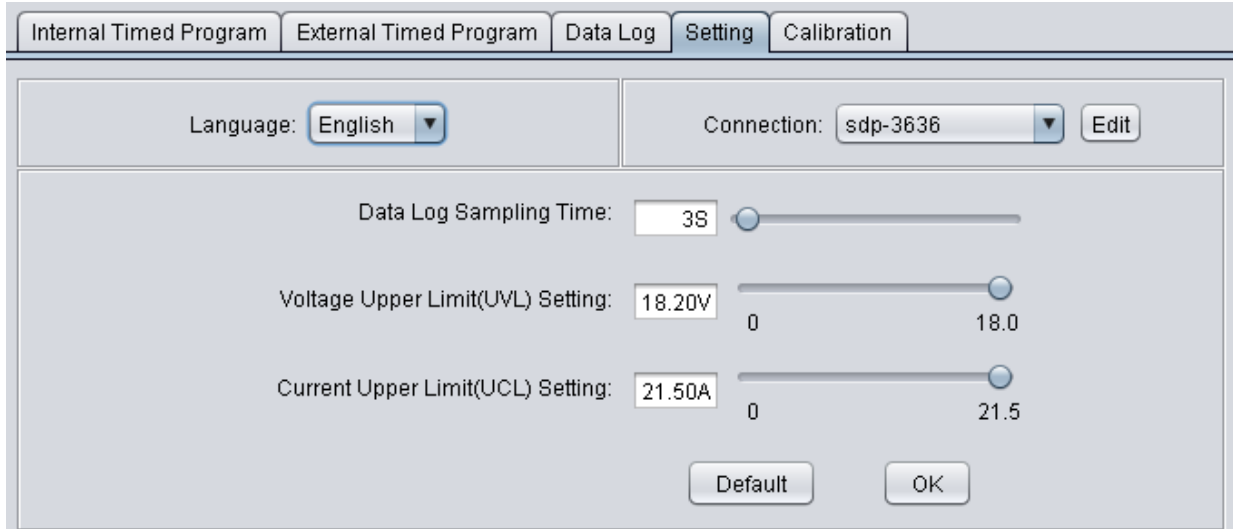
- Click  to clear the setting.


4.7 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,

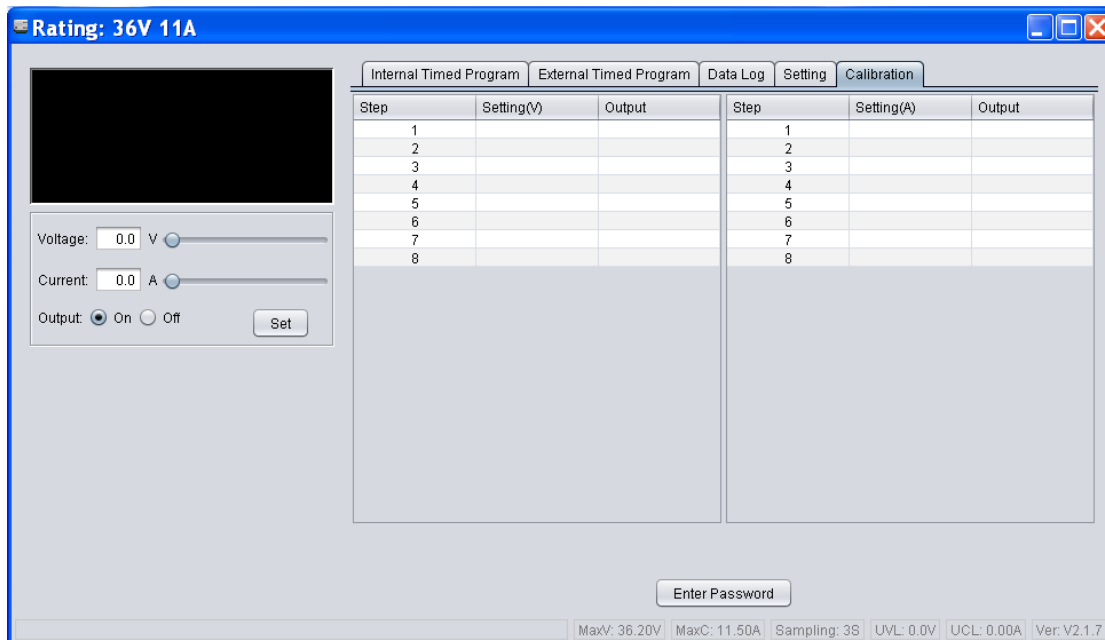
- Direct input your setting value or using slide bar to configure for the UVL an UCL.



- Click  button to save the setting to power supply

4.8 Calibration

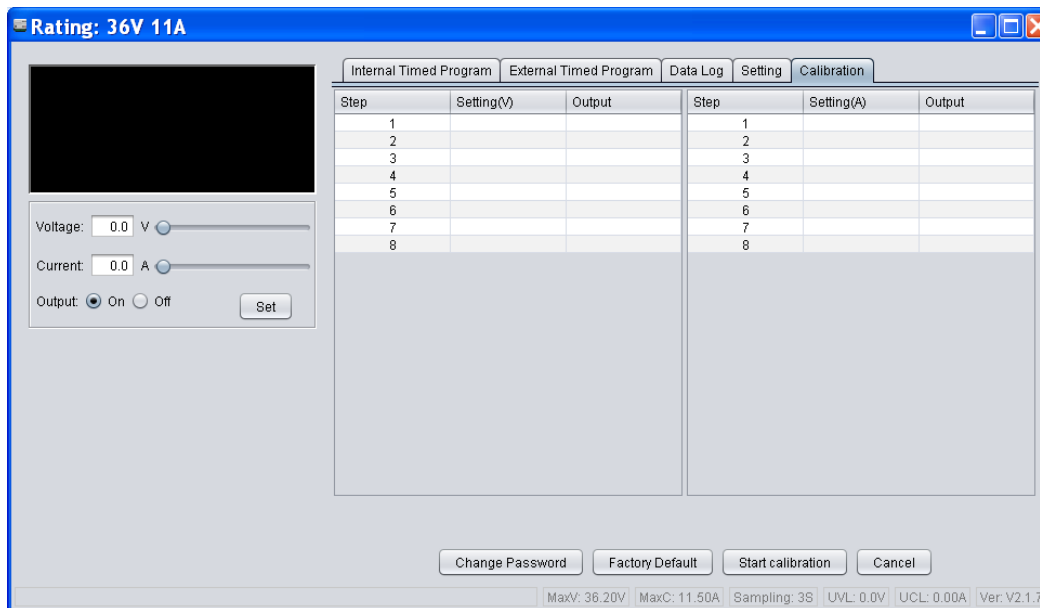
SDP allow customer to calibrate system through our PC system. Click the Calibration tab in PC software.



Step	Setting(V)	Output
1		
2		
3		
4		
5		
6		
7		
8		

Step	Setting(A)	Output
1		
2		
3		
4		
5		
6		
7		
8		

- Enter password. The Default password is “password”

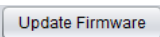


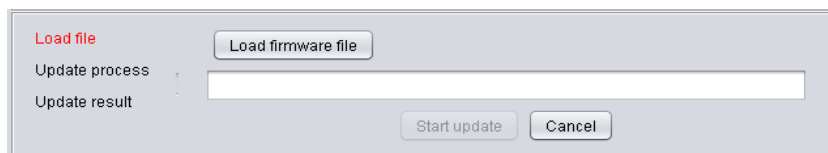
Click “Start calibration” to start calibrate power supply. The system will show setting value for voltage and you input actual output value which measured by multi-meter. After calibrate voltage, it start calibrate the current. It show output current setting and you input actual output value measured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


4.9 Firmware upgrade

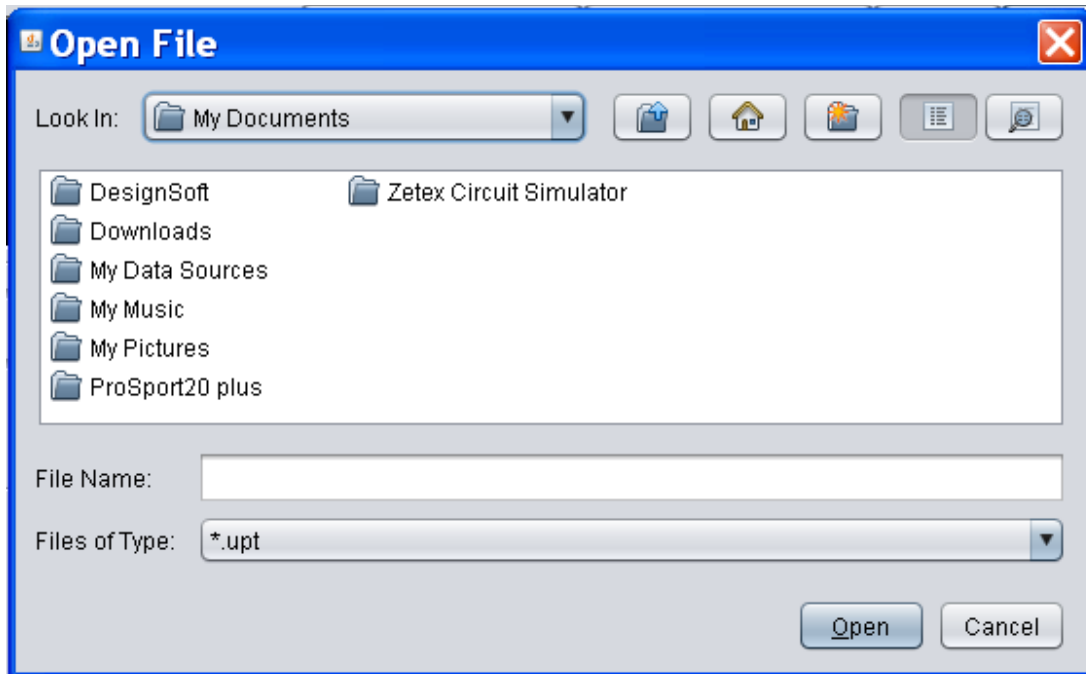
WARNING: PLEASE DO NOT POWER OFF POWER SYSTEM OR DISCONNECT POWER SUPPLY FROM PC OR CLOSE PC SOFTWARE DURING FIRMWARE UPDATE PROCESS. OTHERWISE, THE POWER SUPPLY WILL BE DAMAGED.

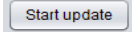
SDP power supply allow user to upgrade firmware through Manson provided software.

- Select Setting tab
- Click  to enter follow firmware upgrade page



- Click  to load firmware image file
- Select the image file in Open File interface



- After load firmware image file, then click  to start transfer image to power supply and update.
- After update success, the power supply will reboot.