multicomp <u>PRO</u>

Power Supply Control Software

User manual

MP710077 MP710078

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 Models

MP710077 MP710078

Supported OS System

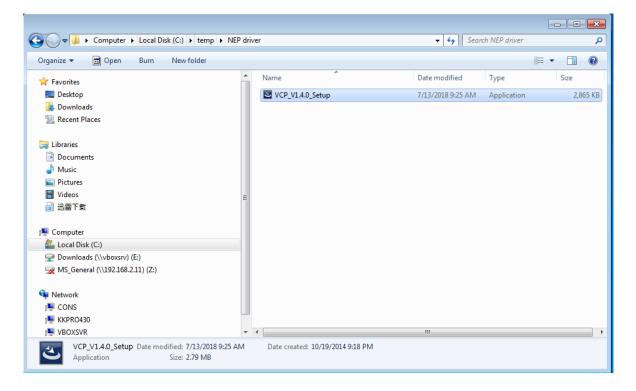
Windows 7, Windows 8, Windows 8.1 and Windows 10

USB driver installation

The USB driver is only need for Windows 7, Windows 8 and Windows 8.1. For Windows 10, please use driver that came included in the OS.

Please download the USB driver from product page on the Farnell web site.

Unzip the downloaded file and run "VCP_V1.4.0_Setup.exe" to install USB driver.



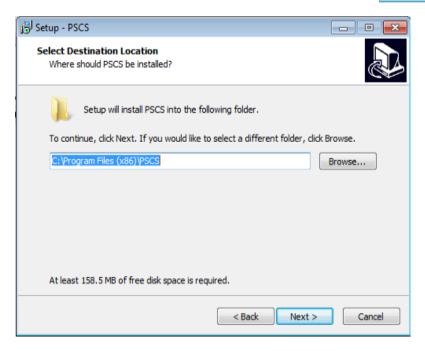
PC software installation

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

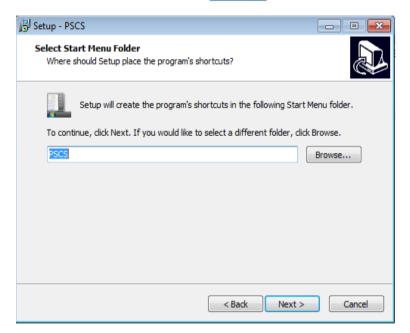
a) Run file "PC Control software.exe" and click Next > to continue.

🔂 Setup - PSCS	
	Welcome to the PSCS Setup Wizard
	This will install PSCS version 2.9 on your computer.
	It is recommended that you close all other applications before continuing.
	Click Next to continue, or Cancel to exit Setup.
	Next > Cancel

b) Select the destination location for software installation and click Next > 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.

弱 Setup - PSCS	- • ×
Select Additional Tasks Which additional tasks should be performed?	
Select the additional tasks you would like Setup to perform while install click Next.	ng PSCS, then
Additional icons:	
☑ Create a desktop icon	
<pre></pre>	Cancel

e) Click Install to start install of PC software.

2. PC software usage

2.1 Main Display

	1. Display panel	nterral	limes (hogram)	2. Main configure and d	ata log display panel
3. Setting Panel 4. Data Handling panel 5. Customer Description	0.000 'SET NO' 0.000 5.000 0.000 5.000 0.000 0.000 0.000 0.000 vittage 5.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.00000 0.00000 0.000000 0.00000 0.000000 0.00000 0.0000000 0.00000 0.00000000 0.000000 0.00000000000 0.00000000 0.00000000000000000000000000000000000	Btop - - - - - - - - - - - - -	Volt: goo() 1.00	Curronitov Curronitov 0 00 0 00	□me 0:0001 0:0002 0:0001 0:0001 0:0002 0:0002 0:0001 0:0001 0:0002 0:0001
				6. Information	panel

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.

	External	Timed Program Data Lo	g Setting		
	Step	Voltage(V)	Current(A)	Time	Output
	1	0.0	0.0	0:00:00	\checkmark
	2	0.0	0.0	0:00:00	\checkmark
	3	0.0	0.0	0:00:00	\checkmark
	4	0.0	0.0	0:00:00	\checkmark
Itage: 0.0 V 🔾	5	0.0	0.0	0:00:00	\checkmark
Ū	6	0.0	0.0	0:00:00	\checkmark
rrent: 0.0 A 🔾	7	0.0	0.0	0:00:00	\checkmark
	8	0.0	0.0	0:00:00	\checkmark
tput: On Off Set	9	0.0	0.0	0:00:00	\checkmark
	10	0.0	0.0	0:00:00	\checkmark
	11	0.0	0.0	0:00:00	\checkmark
	12	0.0	0.0	0:00:00	\checkmark
e Form Generator Description:	13	0.0	0.0	0:00:00	\checkmark
	14	0.0	0.0	0:00:00	\checkmark
	15	0.0	0.0	0:00:00	\checkmark
	16	0.0	0.0	0:00:00	\checkmark
	17	0.0	0.0	0:00:00	v
	18	0.0	0.0	0:00:00	
	10	0.0	0.0	0.00.00	7
	F	Run			Clear Table

Connection editing steps

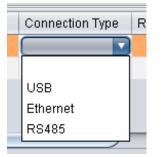
i. Select Setting tab

External Timed Program Data Log Setting	
Language: English	Connection: Edit
Data Log Sampling Time:	38 🔾
Voltage Upper Limit(UVL) Setting:	0.0V
Current Upper Limit(UCL) Setting:	0.00A
	Default

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

Rating:							
	External Timed Pro	External Timed Program Data Log Setting					
	Lang	uage: Englis	sh 💌	Connect	ion:	T	Edit
	Connection Name	Description	Connection Type	Remote IP	Remote Port	COMM Port	RS485 ID
Voltage: 0.0 V							
Output: Output: On Off Set	Save Exit Edit						
	Data Log Sampling Time: 38						
	Voltage Upper Limit(UVL) Setting: 0.0V						
	Current Upper Limit(UCL) Setting: 0.00A						
	Default OK						
			MaxV: 0.0V Ma	axC: 0.00A Sam	pling: 3S UVL	.: 0.0V UCL:	0.00A Ver: V2.1.7

- 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 \rightarrow Display Information \rightarrow LAN Information. Please refer to hardware manual).

Remote IP	Remote Port
192.168.1.242	8888

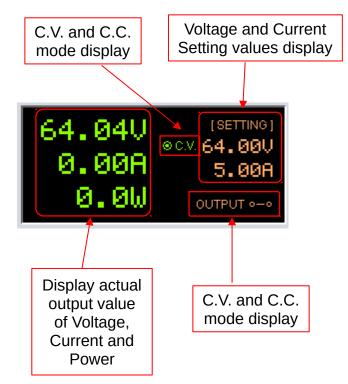
For USB, enter COM port. The COM port can be find in device manager of Windows system after driver installed. For RS485, additional to COM port. Input RS485 ID for your system as well

vi. Then Click save to save setting then click sate 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.

Step Voltage(/) Current(A) Time 0 00A 5.00A 0.00 0.00:00 0 0W 0UTEUT 0.00 0.00 0.00:00 1 0.00 0.00 0.00:00 0.00:00 3 0.00 0.00 0.00:00 0.00:00 4 0.00 0.00 0.00:00 0.00:00 4 0.00 0.00 0.00:00 0.00:00 4 0.00 0.00 0.00:00 0.00:00 4 0.00 0.00 0.00:00 0.00:00 4 0.00 0.00 0.00:00 0.00:00 5 0.00 0.00 0.00:00 0.00:00 6 0.00 0.00 0.00:00 0.00:00 9 0.00 0.00 0.00:00 0.00:00 11 0.00 0.00 0.00:00 0.00:00 12 0.00 0.00 0.00:00 0.00:00 13 0.00 0.00 0.00:00 0.00:00 14 0.00 0.00 <td< th=""><th></th><th>Internal T</th><th>Timed Program</th><th>External Timed Progra</th><th>m Data Log</th><th>Setting Calibratio</th><th>n</th></td<>		Internal T	Timed Program	External Timed Progra	m Data Log	Setting Calibratio	n
2 0.00 0.00 0.0000 3 0.00 0.00 0.0000 4 0.00 0.00 0.0000 4 0.00 0.00 0.0000 4 0.00 0.00 0.0000 5 0.00 0.00 0.0000 6 0.00 0.00 0.0000 6 0.00 0.00 0.0000 7 0.00 0.00 0.00000 8 0.00 0.00 0.00000 9 0.00 0.00 0.00000 10 0.00 0.00 0.00000 11 0.00 0.00 0.00000 12 0.00 0.00 0.00000 13 0.00 0.00 0.00000 14 0.00 0.00 0.00000 15 0.00 0.00 0.00000	⊚с.∨. 5.ИИО	Step	Voltage(V)		Current(A)		Time
3 0.00 0.00 0.0000 intage: 5.00 0 60.5 0.00 0.00 0.0000 arrent: 5.00 0 60.5 0.00 0.00 0.0000 arrent: 5.00 0 0.00 0.0000 0.0000 arrent: 5.00 0.00 0.00 0.0000 0.00000 arrent: 5.00 0.00 0.00 0.00000 0.00000 0.00000 110 0.00 0.00 0.000 0.00000 0.00000 0.00000 120 0.00 0.00 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.0000	0.00H 5.00A	1	0.00		0.00		0:00:00
3 0.00 0.00 0.000 4 0.00 0.00 0.000 4 0.00 0.00 0.000 arrent 5.00 A 0 6 0.00 0.000 0.000 atput: 0 n 0 f 6 0.00 0.00 0.000 0.000 atput: 0 n 0 f 8 0.00 0.00 0.000 0.000 10 0.00 0.00 0.00 0.000 0.000 0.000 0.000 11 0.00 0.00 0.00 0.000 0.000 0.000 111 0.00 0.00 0.00 0.000 0.000 0.000 12 0.00 0.00 0.00 0.000 0.000 0.000 14 0.00 0.00 0.000 0.000 0.000 0.000 15 0.00 0.00 0.00 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	0 0U	2	0.00		0.00		0:00:00
5.00 0 0.00 0.000 arrent: 5.00 0.00 0.00 0.0000 arrent: 5.00 0.00 0.00 0.0000 10 0.00 0.00 0.0000 0.0000 11 0.00 0.00 0.0000 0.0000 11 0.00 0.00 0.0000 0.0000 13 0.00 0.00 0.0000 0.0000 14 0.00 0.00 0.0000 0.0000 15 0.00 0.00 0.0000 0.0000		3	0.00		0.00		0:00:00
1 0		4	0.00		0.00		0:00:00
0 60.5 6 0.00 0.00 0.000 urrent: 5.00 A 0 6.5 7 0.00 0.00 0.000 utput: 0 n 0 f 8 0.00 0.00 0.000 9 0.00 0.00 0.00 0.000 0.000 10 0.00 0.00 0.000 0.000 11 0.00 0.00 0.000 0.0000 11 0.00 0.00 0.000 0.0000 11 0.00 0.00 0.000 0.0000 11 0.00 0.00 0.0000 0.0000 11 0.00 0.00 0.0000 0.0000 13 0.00 0.00 0.0000 0.0000 14 0.00 0.00 0.0000 0.0000 15 0.00 0.00 0.0000 0.0000	oltade: 5.00 V	5	0.00		0.00		0:00:00
u 6.5 8 0.00 0.00 0.00:00 utput: On Off 9 0.00 0.00 0.00:00 10 0.00 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	0 60.5	6	0.00		0.00		0:00:00
B 0.00 0.00 0.00:00 set 9 0.00 0.00 0:00:00 9 0.00 0.00 0:00:00 0:00:00 10 0.00 0.00 0:00:00 0:00:00 11 0.00 0.00 0:00:00 0:00:00 113 0.00 0.00 0:00:00 0:00:00 14 0.00 0.00 0:00:00 0:00:00 15 0.00 0.00 0:00:00 0:00:00	urrent: 5.00 A	7	0.00		0.00		0:00:00
implementation impleme	0 0.0	8	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 14 0.00 0.00 0:00:00 15 0.00 0.00 0:00:00 16 0.00 0.00 0:00:00	utput: On O Off Set	9	0.00		0.00		0:00:00
12 0.00 0.00 0:00:00 trmal Timed Program Description: 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		10	0.00		0.00		0:00:00
In From: 1 0.00 0.00 0.00 In From: 1 0.00 0.00 0.00 In From: 1 0.00 0.00 0.00		11	0.00		0.00		0:00:00
in From: 1 To: 20 Cycle: 1 16 0.00 0.00 0.00 0.00 0.00 0.00 0.00		12	0.00		0.00		0:00:00
in From: 1 To: 20 Cycle: 1 15 0.00 0.00 0.00 0:00:00 0:00:00	rnal Timed Program Description:	13	0.00		0.00		0:00:00
In From: 1 To: 20 Cycle: 1 16 0.00 0.00 0.00 0:00:00		14	0.00		0.00		0:00:00
		15	0.00		0.00		0:00:00
17 0.00 0.00 0:00:00	in From: 1 To: 20 Cycle: 1	16	0.00		0.00		0:00:00
		17	0.00		0.00		0:00:00
18 0.00 0.00 0:00:00		18	0.00		0.00		0:00:00
19 0.00 0.00 0.00 0:00:00		19	0.00		0.00		0:00:00
20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0		20	0.00		0.00		0:00:00

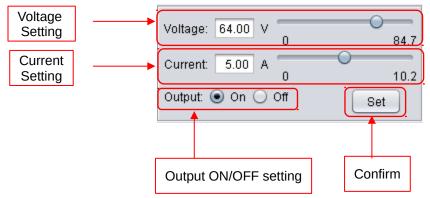
2.3 Display panel



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.

ating: 36V 5A 80W					
11.06V [SETTING] =	Wave Form Generator E	External Timed Program	Internal Preset Memory	Data Log Sett	ing
⊚с.у. 11. ИБО	Select	Voltage(V)		Current(A)	
0.000A 0.210A	Preset A	11.32		0.00	
. 0.0 W _{оυтрит ««}	O Preset B	3.30		1.00	
	O Preset C	0.00		0.00	
Voltage: 11.06 V 0.50 16.00 Current 0.210 A 0.000 5.100 Output On Off Set					
	Set Read	From PS			Clear Table
		Unit	s: 1 MaxP: 80W Samp	ling: 3S UVL: 16	.00V UCL: 5.100A Ver: 2.8

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.

5.620 [SETTING]	Internal	Timed Program	External Timed Program Data Log Setti	ng Calibration	
© C.V. 15. 62U	Step	Voltage(V)	Current(A)	Time	Output
0.00A 12.00A	1	11.62	2.35	0:00:00	v
8.0 6 OUTPUT	2	6.58	0.00	0:00:00	\checkmark
ଷ∎ଷ₩ OUTPUT ∘–∘	3	0.00	0.00	0:00:00	\checkmark
	4	0.00	0.00	0:00:00	\checkmark
ge: 15.62 V	5	0.00	0.00	0:00:00	\checkmark
0 18.2	6	0.00	0.00	0:00:00	\checkmark
nt: 12.00 A	7	0.00	0.00	0:00:00	\checkmark
0 21.5	8	0.00	0.00	0:00:00	\checkmark
ıt: ● On ◯ Off Set	9	0.00	0.00	0:00:00	\checkmark
	10	0.00	0.00	0:00:00	\checkmark
	11	0.00	0.00	0:00:00	\checkmark
	12	0.00	0.00	0:00:00	\checkmark
al Timed Program Description:	13	0.00	0.00	0:00:00	\checkmark
	14	0.00	0.00	0:00:00	\checkmark
	15	0.00	0.00	0:00:00	\checkmark
ig Cycle: 1 🔾	16	0.00	0.00	0:00:00	\checkmark
	17	0.00	0.00	0:00:00	\checkmark
	18	0.00	0.00	0:00:00	\checkmark
	19	0.00	0.00	0:00:00	\checkmark
	20	0.00	0.00	0:00:00	V
		Run			Clear Table

- 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	V
2	11.08	0.00	0:00:00	\checkmark
3	0.00	0.00	0:00:00	\checkmark
А	0.00	0.00	0.00.00	J

- 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		\checkmark
9:59:59	9:59:59 韋	
0:00:00		v

- 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:	1	0	
----------------	---	---	--

- Click Run button to start running cycle.
- In between program running cycle, click **Stop** button to stop program.
- Click Clear Table 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,

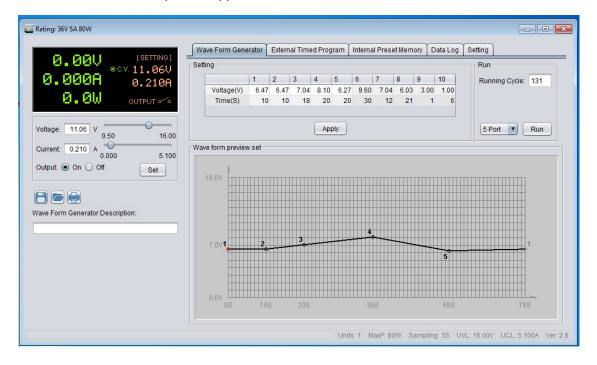
- Direct input your setting value or using slide bar to configure for the UVL an UCL.

Internal Timed Program External Timed Program Data	Log Setting Calibration
Language: English 🔻	Connection: sdp-3636
Data Log Sampling Time:	38 🔾
Voltage Upper Limit(UVL) Setting:	18.20V 0 18.0
Current Upper Limit(UCL) Setting:	21.50A 0 21.5
	Default OK

Click or button to save the setting to power supply

2.8 Wave Form Generator

The MP710077 and MP710078 have wave form generation support. The Wave Form Generator tab will be shown after connected to these power supplies.



2.9 Calibration

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

Rating: 36V 11A						
	Internal Timed P	rogram External	Timed Program	Data Log Setting	Calibration	
	Step	Setting(V)	Output	Step	Setting(A)	Output
	1			1		
	2			2		
	4			4		
	5			5		
oltage: 0.0 V	6			6		
Shage. 0.0 V	8			8		
current: 0.0 A O						
Dutput: On Off Set						
			Enter	Password		
		M	axV: 36.20V MaxC	: 11.50A Sampling:	38 UVL: 0.0V U	CL: 0.00A Ver: V2.1
Enter password The De	fault nacev	vord is "na	eeword"			

Enter password. The Default password is "password"

	Internal Tim	ed Program Ex	ernal Timed Program	Data Log Setting	Calibration	
	Step	Setting(V)	Output	Step	Setting(A)	Output
	1			1		
	2			2		
	3			3		
	4			4		
	5			5		
	7			7		
	8			8		
	Set					
Off						

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.