

**NEW**

Realize various sequence motion with simple action

The sequence software  
for power supplies and electronic loads

**PSS2**

PSS2 is the dedicated software which can actuate various power supplies, electronic loads and digital controller for power supplies manufactured by Matsusada Precision Inc. with simple set up. It is the perfect for the aging test, the burn-in test and the withstand voltage test for electronic parts, and for the endurance test, intermittent / continuous operation test or various simulation test for electric component of automobile.

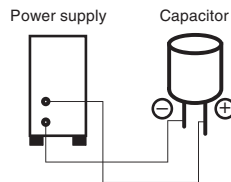
## FEATURE

- Set-up of various sequences with simple action only inputting voltage, current and time is possible.
- Saving log of data with the monitoring function is possible.
- Test continuously changing environment load of temperature or humidity in coupled operation with thermostatic chamber manufactured by ESPEC Corp. is possible.
- Packaged control in one application soft is possible if power supplies or electronic loads applied in combination with PSS2 are of many different types.

## IT IS USABLE TO FOLLOWING APPLICATION FOR EXAMPLE

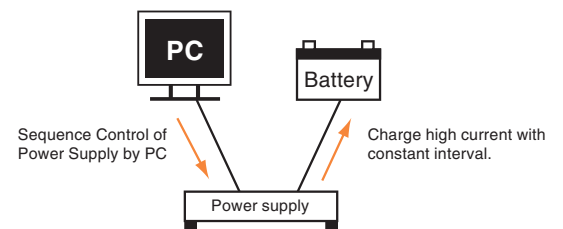
### ▶ Destructive test for electronic parts such as capacitor

Measurement of breakdown voltage of the parts by loading voltage with ramp pattern is possible. PSS2 is applicable to our DC power supply and also a high voltage power supply.



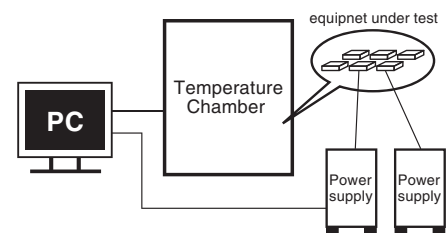
### ▶ Heat cycle test for Rechargeable Battery or connectors

Heat cycle test loading high current with some interval by making up sequence pattern simulated actually use of PSS2.



### ▶ Endurance test for products or components in combination with temperature chamber

It is possible to control the power supply with the sequence pattern by PSS2, at the same time, to control temperature and monitor temperature chamber.



Our products are available for a board rage of application such as voltage fluctuation test, high-capacity electric test, highest toleration test, highly accelerated life test, migration test, insulation resistance test, measurement of insulation aging, etc.

# LINEUP

Model No. of PSS2 Series		Applicable our Power Supplies and Electronic Load	
PSS2en-R4K36	PSS2en-DCPS	DC Power Supplies	R4K-36 series
PSS2en-R4K80			R4K-80 series
PSS2en-RK80			RK-80 series <sup>*1</sup>
PSS2en-R4G			R4G series <sup>*1</sup>
PSS2en-R4GT			R4GT series <sup>*1</sup>
PSS2en-RK			RK series
PSS2en-RKT			RKT series
PSS2en-RE			RE series <sup>*1</sup>
PSS2en-REK			REK series
PSS2en-REH <sup>*2</sup>			REH series <sup>*1</sup>
PSS2en-REKJ			REKJ series
PSS2en-TB			TB series
PSS2en-VOL			VOL series
PSS2en-VOT <sup>*2</sup>			VOT series
PSS2en-EHD			PSS2en-DCEL
PSS2en-EGD	EGD series		
PSS2en-CORG	PSS2en-CO	Adapter of Power Supplies for Analog Control	RG series <sup>*3</sup>
PSS2en-COHV			ES series <sup>*1 *3</sup>
			AU series <sup>*3</sup>
			AF / AE series <sup>*1 *3</sup>
			W series <sup>*3</sup>
	EQ series <sup>*1 *3</sup>		
PSS2en-DRJ	PSS2en-ACPS	AC Power Supplies	DRJ series <sup>*1</sup>
PSS2en-DRA			DRA series <sup>*1</sup>
PSS2en-DRS <sup>*2</sup>			DRS series
PSS2en-DRK <sup>*2</sup>			DRK series <sup>*1</sup>
PSS2en-EPR <sup>*2</sup>	PSS2en-HVPS	High Voltage Power Supplies	EPR series <sup>*1</sup>
PSS2en-AES <sup>*2</sup>			AES / AESS series
PSS2en-DOPF	PSS2en-AMP	Bi-polar Power Supplies	DOPF series <sup>*1</sup>
PSS2en-DOSF			DOSF series <sup>*1</sup>
PSS2en-DOKF			DOKF series
PSS2en-DJOPF			DJOPF series <sup>*1</sup>
PSS2en-COMS	Whole Power Supplies intervened to Controller CO-MS		
PSS2en-EL	Electronic Loads	ELD series	



For PSS2 series, it is possible to order in combination them. (Model No. is alphabetical order.)  
 Example : PSS2en-DCEL-DCPS / PSS2en-CO-DCEL – To apply the unit combined the DC power supply and the electronic load.

\*1 : Only for the model installed optional digital interface.

\*2 : Planning to go on sale in the near future.

\*3 : The dedicated our adapter needs. For the detail, please contact with our sale staff.

**All of line-up model are supported by dongle license in its action.**

You can apply PSS2 in various combinations as it is possible to issue the license for a number of component combinations.

### Example of Combination

#### ■ Actuation of DC source in different series



You can actuate two DC source of R4K-36 series and R4K-80 series at same time by issuing two PSS2 license for PSS2en-R4K36 and PSS2en-R4K80.

#### ■ Actuation in combination of DC source and electronic load



You can actuate two DC source of RK-80 series and R4K-80 series and electronic load of EL series, at same time by issuing three PSS2 license for PSS2en-RK80, PSS2en-RK and PSS2en-EL.

# OPERATION MODE

**NEW**

## Direct Control Function

Go on Sale in the near future

It is possible to control directly the objective components to be controlled such as power supplies. It is possible to change setting value monitoring condition of the power supply or load.

### Constant Mode

It acts at constant voltage and constant current. In case of electronic load, it is constant-resistance mode, in case of AC power Supplies or bipolar power supply, it is the mode un-changed setting value like as constant frequency.

### Software Sequence

It changes action of our product concerned, feeding continuously setting value from PC. (Possible steps to set : up to 999 steps)

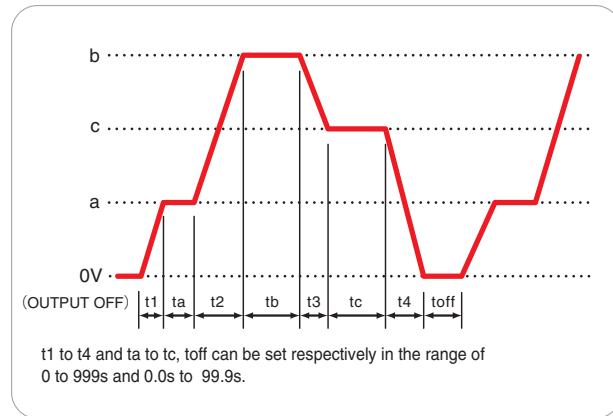
### Hardware Sequence

Pulse sequence and pulse ramp sequence of DC power supply provided optional (\*) pulse ramp sequence can be set.

\* For the detail of these options, please refer to the catalogue for wearable DC power supplies

It is usable to combine pulse sequence action and ramp action. If combine multi-set function, it is also possible to actuate sequence action by using voltage and current value set in memories a, b and c.

It is possible to set repeat count and of course continuous operation. It is available in various aspects as it is able to change slowly up and down voltage and current up to the three set values and also repeatable it.



[WORKING IMAGE]

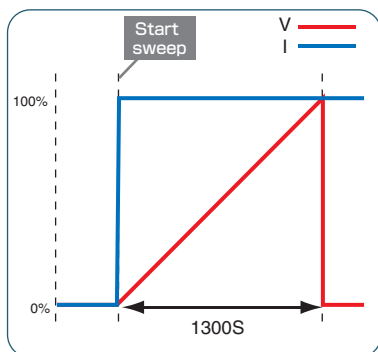
### Hardware Sweep

Sweep items for DC power Supplies provided optional pulse sequence or pulse ramp sequence(\*) can be set.

\* For the detail of these options, please refer to the catalogue for wearable DC power supplies

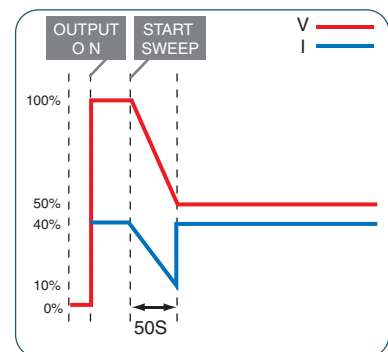
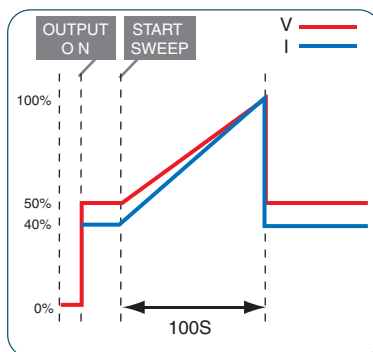
#### Example for an application at constant voltage

- The set voltage after arrival 0V
- The time of arrival 1300S



#### Example for the cases to sweep from a certain value and return to the origin after arrival.

- Return to the original voltage / current after arrival
- The time of arrival 100S
- Keep the voltage but return the original current after arrival
- The time of arrival 50S.



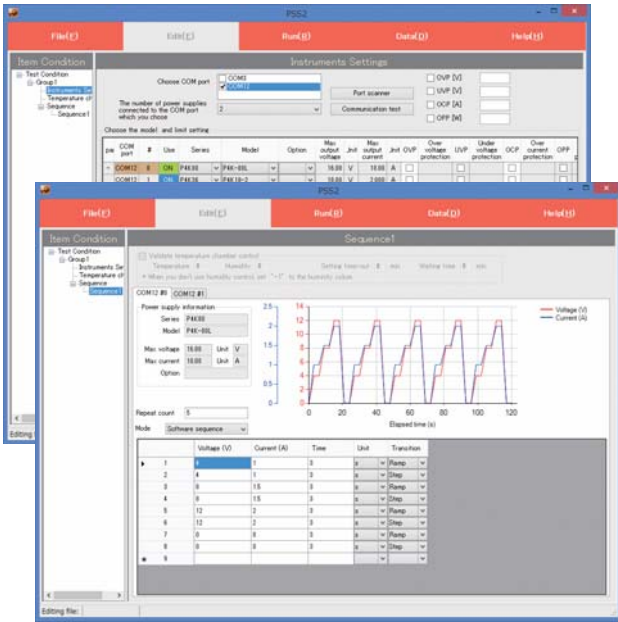
# EXAMPLES FOR OPERATION OF PSS2

# 1

## Set-up test condition

Make-up test conditions like as setting the power Supplies or action sequence and so on.

Number of settable sequence pattern is max. 16, it is possible to set various test conditions fitted the target like as selection of the action mode and setting of any protection function, etc.

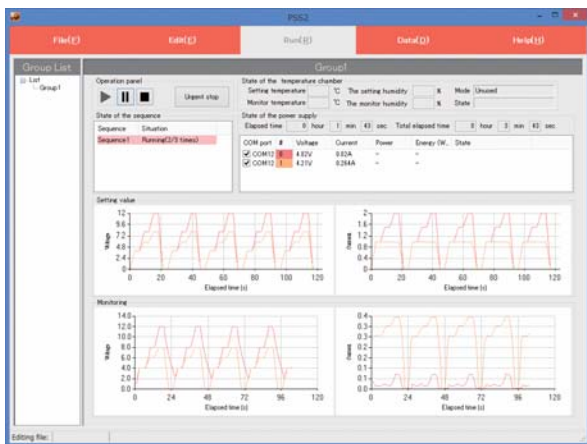


# 2

## Execution of Test

It is possible to test each group setup.

On the operation display, it is possible to monitor on the one screen required information like as sequence, the status of the thermostatic chamber and the power supply, and voltage / current at testing. Also when execute in parallel plural group, it is possible to monitor these status together.

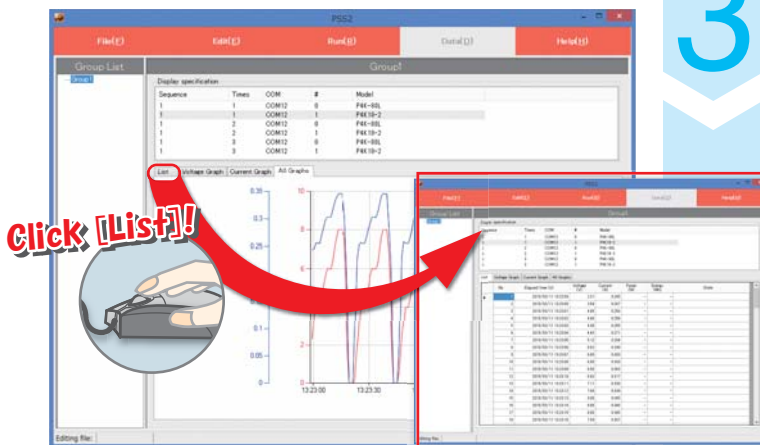


# 3

## Confirmation of Measured Data

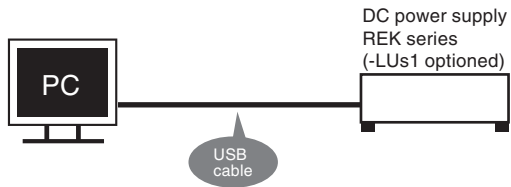
It is possible the test data completed.

It is possible to confirm values of each sequence, the individual graph or the packaged graph. Also it is possible to output measured data with CSV style and then to sum up or analyze them with the spreadsheet software.

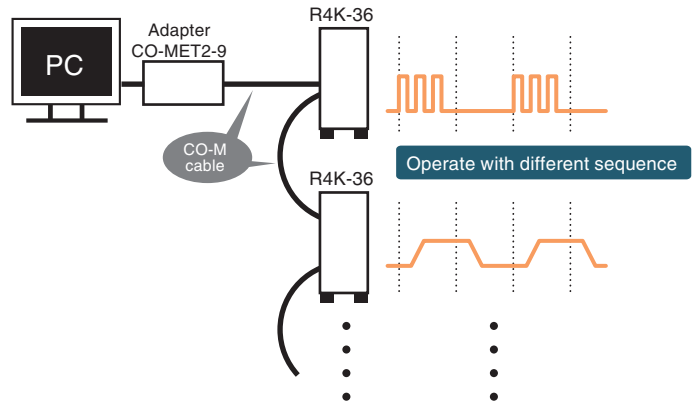


# EXAMPLES FOR CONNECTION

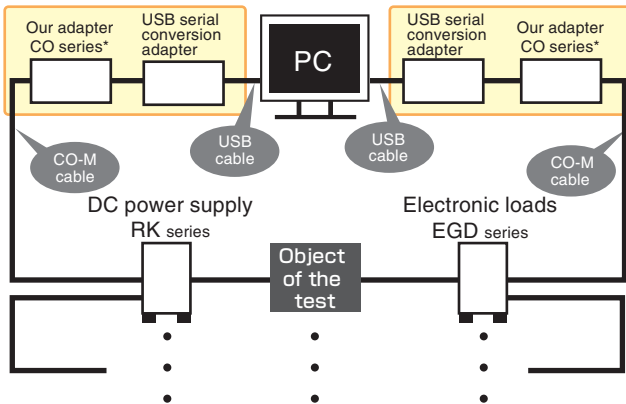
Easy control High-voltage power supply with one USB cable



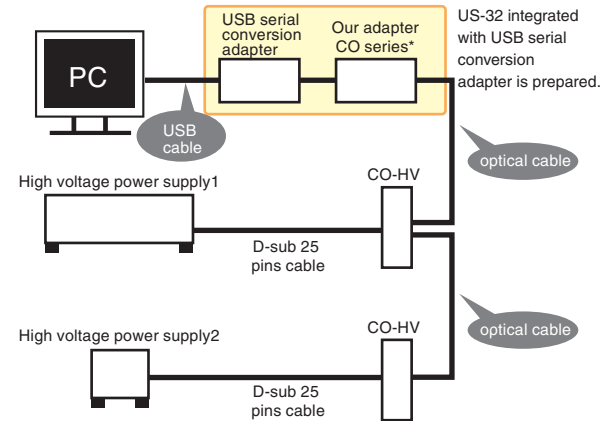
Operation plural DC power supply R4K-36 with different sequence in the software



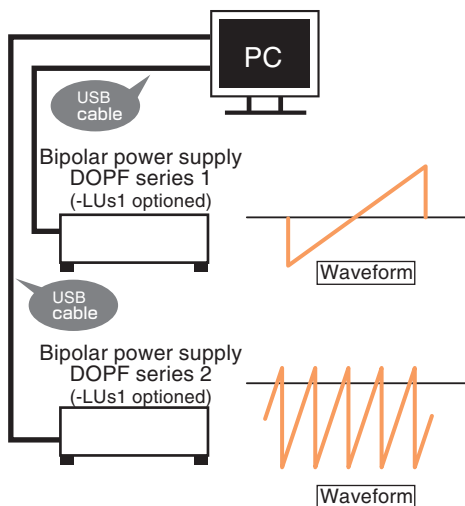
Test system combined DC power supply and electronic loads



Control of high voltage power supply by using the controller CO-HV for HVPS



Sweeping by using two bipolar power supplies built-in function generator



[Example for operation screen]

\* For the detail, please contact us our sales staff.

## OPERATION ENVIRONMENT

OS *	Windows 8.1 (32 / 64bit), 8(32 / 64bit), 7(32 / 64bit), Vista(32 / 64bit), Microsoft .NET Framework3.5SP1	<b>Commercially available USB serial converter cable</b>  USB serial converter confirmed operation by us  <ul style="list-style-type: none"> <li>• BSUSRC06, SRC06USB by BUFFALOInc.</li> <li>• USB-CVRS9 by SANWA SUPPLY Inc. (defect report from a part of user)</li> <li>• REX-USB60F by RATOC Systems Inc.</li> <li>• USB-RSAQ6R, USB-RSAQ5R by I-O DATA DEVICE Inc.</li> <li>• USB-013 by HUMANDATA Ltd.</li> </ul> (Any one is not of warranty. Other USB serial conversion cable than above have not been confirmed operation.)
Language	English	
CPU	Pentium4 or higher grade	
RAM	1GB and larger	
HDD	500MB and larger free space	
Display	1024×768pixel and higher resolution	
Device Driver	Driver for communication port or virtual communication port is required for communication to our product	
Communication Port	USB or RS-232C port (connection method or number of required free port is different by the communication adapter.)	
Protection for software	Connected USB Security Key is required.	

\* Operation on Windows XP has been confirmed by us.

But we preclude any possibility of support for operation on Windows XP, as Support for it by Microsoft is terminated.

- ▶ Microsoft and Windows are registered trademark of Microsoft Corporation in USA and other countries.
- ▶ Other product names are registered trade mark of each company concerned.
- ▶ Only when plural kind of PSS2 are purchased at same time, it is able to consolidate USB protect key to one. For detail, please contact our sale staff.
- ▶ There are some cases that it not operate correctly depending on ROM version installed our product concerned. We recommend purchase software and hardware at the same time.
- ▶ Do not cut the power supply of any hardware or PC or pull out the plug of communication cable during communication with the hardware.

## GENERAL SPECIFICATIONS

Step time in Squence *1	1 to 999s / m / h If sequences are set on the hardware but not on PSS2 for power supplies provided optional -LDc or -LDe, specifications are as follow. Pulse : 1.0 to 99.9s / m / h    Ramp : 0 to 999s
Set Range	The same with setting range of our product concerned.
Set Accuracy	The same with setting accuracy of our product concerned.
Set Value to Save	Setting any names together with holder names and file names is possible. (Spec. of names is pursuant with one of Windows.)
Monitor	Status, Output Voltage, Output Current (It will be handled other than above, if there are any monitoring function provided on our product.)
Accuracy of Monitor	The same with monitoring accuracy of our product concerned.
Interval of monitoring	Set with one of delta time, delta voltage, delta current. Minimum interval *2 : 0.25s / time for a power supply, etc Resolution capability : 1s Setting range : higher than the accuracy of monitor (only for delta voltage and delta current)
Saving of Monitored Data *3	Saved in real time
Data to be Saved	Time, Output Voltage, Output Current (It will be handled other than above, if there are any stored data provided on our product.)
Action Mode *4	Action with Constant Value, Software Sequence, Hardware Sequence *5, Hardware Sweep *5
Number of Control Unit	1 to 32 units of our products per one PC
Coupled Operation with Temperature Chamber	Couple operation with temperature chamber by ESPEC is possible. (Please contact us, if apply a temperature chamber.) Set Operation Range : Depend on the temperature chamber to be applied. Operable Units : Units provided digital interface. Operable Unit Number : maximum 16 .
Accessory	CD for Installation (1), USB Security Key (1), Instruction Manual (1)

\*1 These are not applied in case of AC and bipolar power supplies. If 32 units are made daisy chain connection, the minimum setting time is 8 seconds as 0.25 seconds need per one unit. The minimum setting time for cascade connection is 1 second.

\*2 Not warranted. It may be differ by the usage environment or the connection condition.

\*3 Save exceeding the remaining storage of destination to save is not possible. We recommend save on a local HDD as there are cases so that saving is not able depending on the devise of destination to save and / or connection method.

\*4 Please refer to P.4 and 5, for the detail of action mode.

\*5 Only for applicable power supplies.

