

The setting of Test Script

Test Script Setting Procedures: (Using a PSW as an example)

1. Download t001.csv and t001.tst from GW Instek website

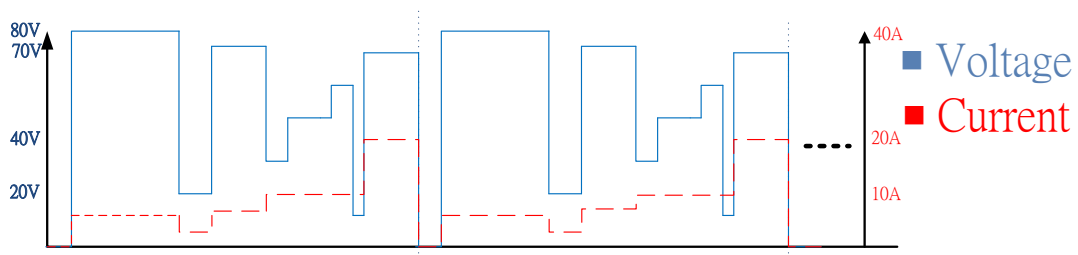
2. Save t001.csv and t001.tst to your USB's root directory and confirm the saved file names are identical in your USB flash drive



3. Open t001.csv provided by GW Instek and edit output voltage, current, time, cycle, etc. for step1~step9. Please refer to the following chart. For cycle setting, first of all, set the step numbers for Start and End. Start and End should be placed corresponding to the step positions.

Step	Point	Output	Time(sec)	Voltage (V)	Current (A)	OVP(V)	OCV(A)	Bleeder	IV Mode	Vsr up(V)/Vsr down(V)	Isr up(A)/Isr down(A)	IR(ohm)	Beeper	Sense Aver	Jump to	Jump Cat	Trig
32	1 Start	Off	2	0	0	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
33	2	On	10	80	7	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
34	3	On	3	20	3.5	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
35	4	On	5	75	8	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
36	5	On	2	30	10	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
37	6	On	4	45	10	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
38	7	On	2	50	10	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
39	8	On	1	10	10	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
40	9 End	On	5	70	20	MAX	MIN	ON	CVHS	MAX	MAX	MAX	MIN				
41	10																
42	11																

After filling the Excel chart with the parameters, users can quickly obtain a sequential power output as shown below.



From the above output example, each step is a setting and there are 9 steps to make up a cycle. The set cycle was repeated for two times.

Settings for power supply: (For demonstration purpose, this example only planned 9 steps, please see Test Script features below for its full capability.)

Features of GW Instek Test Script:

Setting: Capable of editing up to 20,000 settings

Cycle: Capable of setting 1 billion or infinite cycles

Duration time: Each setting can be set from 50ms to 20 days

Step 1 Set output Off for two seconds

Step 2 Set 80V/ 7A output for 10 seconds

Step 3 Set 20V/ 3.5A output for 3 seconds

Step 4 Set 75V/ 8A output for 5 seconds

Step 5 Set 30V/ 10A output for 2 seconds

Step 6 Set 45V/ 10A output for 4 seconds

Step 7 Set 50V/ 10A output for 2 seconds

Step 8 Set 10V/ 10A output for 1 second

Step 9 Set 70V/ 20A output for 5 seconds. Determine whether the cycle number reaches 2.

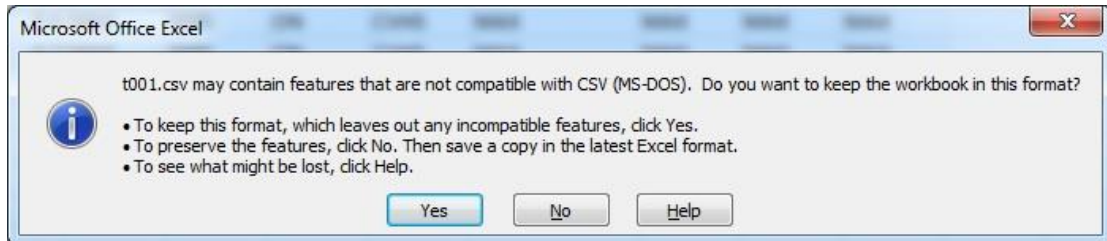
(End Test Script if the cycle number is 2. If the cycle number is less than 2, repeat step1~step9.)

Test Script Parameter Definition:

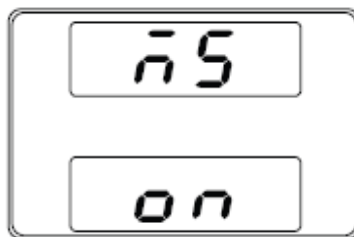
- i. OVP: over voltage protection setting. MAX: Maximum value by default ;
MIN: Minimum value by default
- ii. OCP: over current protection setting. MAX: Maximum value by default ;
MIN: Minimum value by default
- iii. Set Bleeder to 1 to activate bleeder control ° (This function is to assist DUT to quickly discharge) Set Bleeder to 0 to deactivate bleeder control
- iv. IV mode:
 - CVHS: Set PSW under CV priority mode, voltage rising and falling are at the fastest mode (slew rate setting for voltage and current is invalid)
 - CCHS: Set PSW under CC priority mode, current rising and falling are at the fastest mode (slew rate setting for voltage and current is invalid)
 - CVLS: Set PSW under CV slew rate control mode, voltage rising and falling are operated by settings °
 - CCLS: Set PSW under CC slew rate control mode, current rising and falling are operated by settings °

Cycle: Set the number of cycles (To execute infinite cycles please set the number of cycles to 0)

4. The following dialogue box will appear when you save or close the file. Please click “yes” to maintain this format.



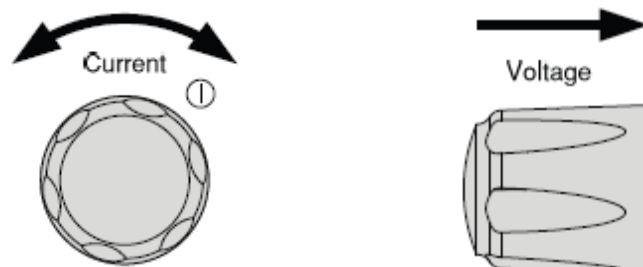
5. After saving the file, please insert USB to the USB port on the front panel of PSW and wait for 5 seconds. (MS appearing on the display represents USB has been read)



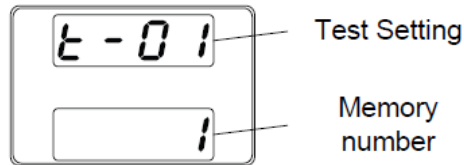
6. Press test key on the front panel of PSW to enter Sequence function settings.



7. Use voltage knob to select T-02, then use current knob to select desired memory location (1~10) and press voltage knob to save the file to PSW.



Note: If .csv file name is t001 please select memory location(number) 1. If .csv file name is t002 please select memory location 2 and so on.



8. Use voltage knob to select T-01, then use current knob to select desired memory location (1~10) and press voltage knob to confirm execution setting. Press OUTPUT key, PSW will then output the previous edited settings.

9. Press voltage knob and then the following display will be shown to represent it is successfully entering the execution stand-by display. Press “output” to initiate operation. To pause operation, press “output” again. To resume operation, press “output”. To terminate operation and exit Test Script, press “Test”.



Note: If there is error messages as shown on the following displays please follow “Error Messages and Solutions” to amend t00x.csv file. °

(For example: Error 93→_SEQ_ERR__OCP_TOO_SMALL.) OCP setting is too small that is beyond the specifications. Settings should be within the specifications.)



GW Instek power supply models supporting Test Script are as follows:

PSU 6-200	PSW 30-36	PSW 250-4.5	PSB-1400L	PFR-100L
PSU 12.5-120	PSW 30-72	PSW 250-9	PSB-1400M	PFR-100M
PSU 20-76	PSW 30-108	PSW 250-13.5	PSB-1800L	
PSU 40-38	PSW 80-13.5	PSW 800-1.44	PSB-1800M	
PSU 60-25	PSW 80-27	PSW 800-2.88		
PSU 100-15	PSW 80-40.5	PSW 800-4.32		
PSU 150-10	PSW 160-7.2			
PSU 300-5	PSW 160-14.4			
PSU 400-3.8	PSW 160-21.6			
PSU 600-2.6				