

Large Particle Sensor Evaluating Kit Operating Manual

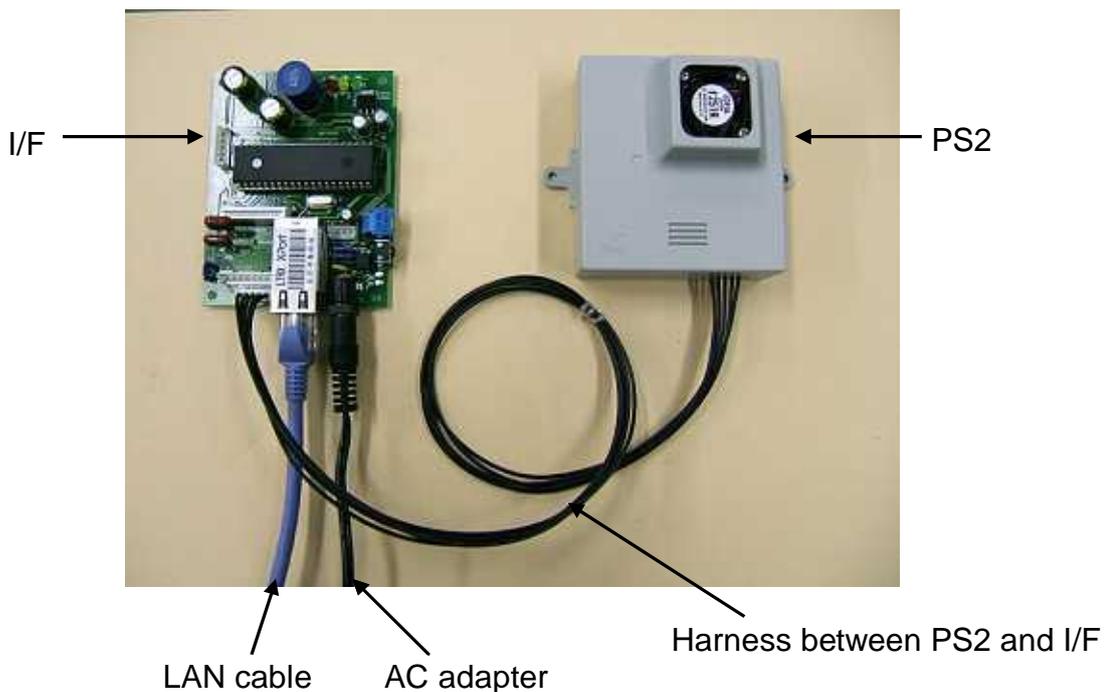


*Corresponding with Particle Judgment Matrix Ver1.0

1. Contents

- (1) Large Particle Sensor PS2
- (2) Connection Interface I/F
- (3) Harness
- (4) Original AC adapter (DC12V)
- (5) Evaluating Software (CD-R)
 - Folder "¥XPort_DeviceInstaller" -- Device Installer (by LANTRONIX)
 - Folder "¥NET Framework" -- Microsoft.NET Framework
 - Folder "¥Particle Judgment Matrix" -- Connecting Software "Particle Judgment Matrix Ver1.0"

2. Wire Connection



2-1 Wire Connection and Setting

- (1) Please connect PS2 and interface using attached harness (5 lines).
- (2) Please connect one end of LAN cable to interface plate and another end of LAN cable to PC or hub in the network.
 - *Please connect LAN cable as below.
 - When you connect 1 Large Particle Sensor directly to 1 PC. -- Please use cross over cable.
 - When you connect Large particle Monitor to PC through LAN Hub. -- Please use straight cable.
- (3) Please set Large Particle Sensor (PS2) as you can see in below photograph:
 - Its fan comes upper side and its suction slit comes lower side, vertically.**
- (4) Please plug in attached AC adapter to interface plate.

Note: Please do not use power source other than attached AC adapter. Or, do not use attached AC adapter for different use.

Note: Large Particle Sensor (PS2) and interface must be set in the place where they never get wet by rain or snow. Also, Large Particle Sensor (PS2) is not designed to be set outside naked for measurement. When they receive the direct sunlight, they cannot detect faint scattered light from floating particles. So, please set it in a place that the direct sunlight cannot reach, just like a thermometer shelter.



Example of Setting PS2 in Thermometer Shelter (For your reference)

3. Getting ready for Connection

3-1 System environment needed for connection

Large Particle Sensor can be connected to PC through Ethernet. The system composition (Hardware and Software) needed is as below.

- PC that can run Microsoft windows98/2000/XP normally.
- Network card which correspondent with above PC.
- The PC has been installed TCP/IP as a network protocol and can run it normally.

*The "Internet Connection Firewall" must be disabled, or else UDP Ports 30718, 43282, 43283 must be available.

For details, please visit Lantronix Device Installer website. (www.lantronix.com)

3-2 Installing Software

In order to connect Large Particle Sensor and PC by Ethernet, you need to install two software as written below.

- "Device Installer (By LANTRONIX)
This software helps you to assign IP address to Large Particle Sensor.
- Connecting Software "Particle Judgment Matrix Ver1.0"
This software communicates with Large Particle Sensor and judge how many particles have been detected.

(1) Installing "Device Installer"

Please find a folder "¥XPort_DeviceInstaller" from CD-R contents, and run "Setup.exe".

Note: You need Microsoft.NET Framework to install "Device Installer"

When you see the below dialogue,



Click on "No" to stop installation, find a folder "¥NET Framework" from CD-R, and run "dotnetfx.exe" to install "Microsoft.NET Framework", and restart the procedure to install "Device Installer".

*You can download "Device Installer" from below website of Lantronix.

http://ltxfaq.custhelp.com/cgi-bin/ltxfaq.cfg/php/enduser/std_adp.php?p_refno=020122-000019

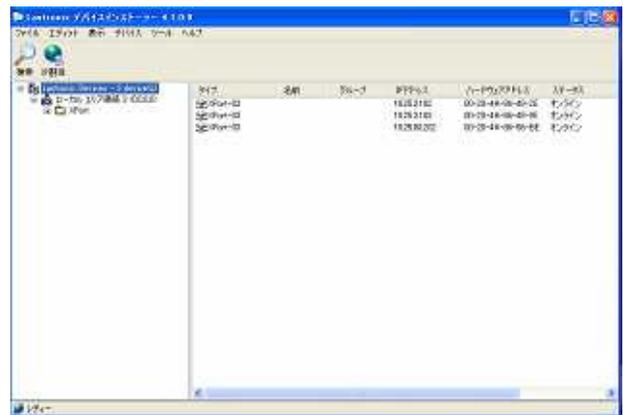
(2) Installing a Connecting Software "Particle Judging Matrix Ver1.0".

Please find a folder "Particle Judgment Matrix" from CD-R contents, and run "Particle Judgment Matrix.ms".

3-3 Assigning IP address

(1) Plug in AC adapter to power outlet to power on Large Particle Sensor. After waiting for **10 seconds** or so, activate Device Installer. Then you can see the window and also all of the connected Large Particle Sensors.

*If you see “unknown” on the (TYPE) column on the upper side of the window, it is not problem, so follow below procedure.



(2) Select connected Large Partcile Sensor in the window and click “Assign IP”.

(3) If you would like to assign IP address automatically from DHCP server, check “Obtain an IP address automatically”.



(4) If you would like to assign specific IP address to Large Particle Sensor, please check “Assign a specific IP address” and follow the message.

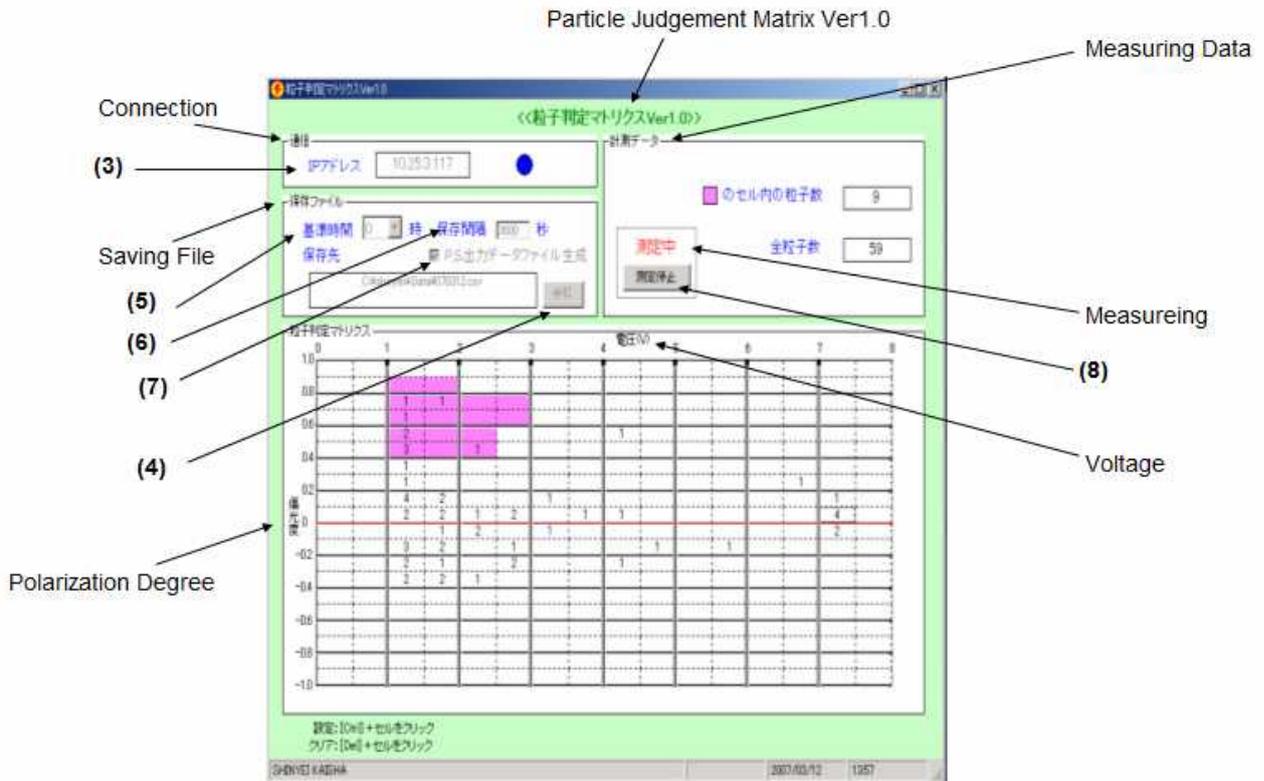


Note: In some cases, assignable IP address can be limited by the networking environment. In that case, please inquire with network manager.

Note: Never change settings other than IP address. If you change them, you will not be able to connect with Large Particle Sensor.

4. Measurement

- (1) Plug in AC adapter to power outlet to power on Large Particle Sensor.
- (2) Activate Connecting Software “Particle Judgment Matrix Ver1.0”.



- (3) IP address
 Input the IP address that you have assigned to Large Particle Sensor with above procedure.
 *Please input IP address with half-width numbers and point off with period. For example, 192.168.0.1
 *The "Internet Connection Firewall" must be disabled, or else TCP Port 10001 must be available.
- (4) The folder to save data
 Click on “Refer” button to select a folder where to save data.
 *The name of the file for saving measurement data will automatically be “date.CSV”. The new data file will be created everyday.
- (5) Setting Standard Time
 Please set the standard time for measurement.
 *For example, if you would like to make a file to save the data from AM9:00 to PM9:00, select “9”.
 *For example, if you selected the standard time of “9”, the files will be made under these name.
 - ・The date from November 1, 2006 AM 9 to November 2 PM 9 … “061101.CSV”
 - ・The data from October 31, 2006 AM 9 to November 1 PM 9 … “061031.CSV”

(6) Data Storing Interval

Please input the interval for storing the accumulated number of particles.

*Please input integral number 1-3600 (seconds)

*If you input the number over 3600, it will automatically be 3600 seconds.

*If you input the number less than 1, it will automatically be 1 second.

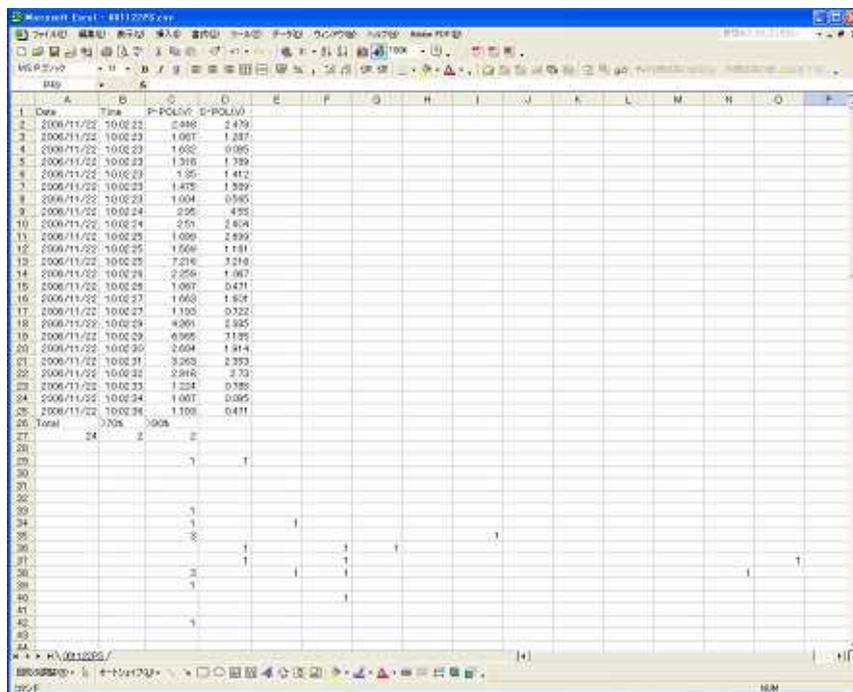
*If you have chosen 3600 seconds, it will store the data every hour.

For example, if you started measuring on 9:10, next storing time will be 10:00 and next will be 11:00, not 10:10, or 11:10.

(7) Producing data files of P and S output

This function is for Pollen Sensor. For detecting large particles, this function should be ignored. Adding to the file for saving the accumulated number at desired interval, you can produce the file for P output and S output of every Pollens and Particles. If you would like to produce it, please check in a checkbox.

*The name of the file for saving measurement data will automatically be “date.CSV”. The new data file will be created everyday in selected folder.

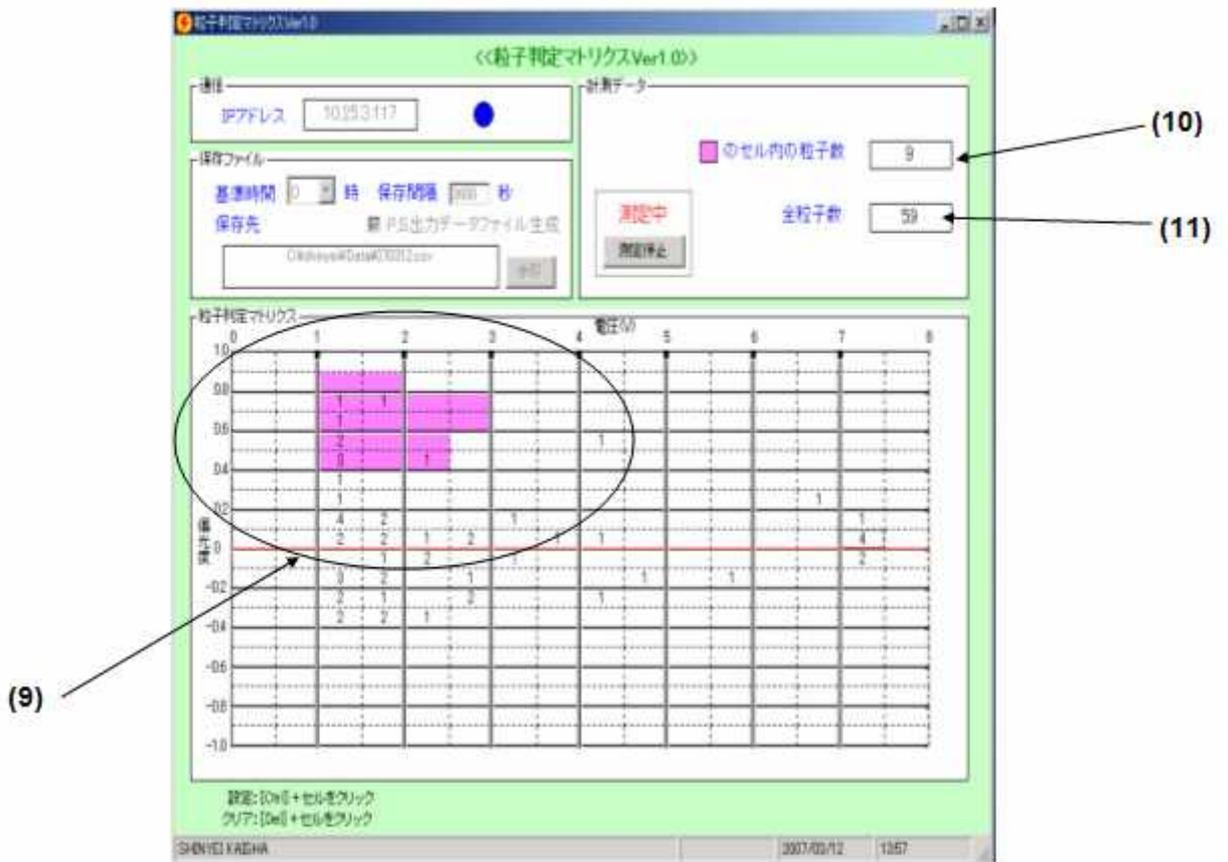


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Date	Time	P-POLV	S-POLV												
2	2006/11/22	10:02:23	0.888	2.479												
3	2006/11/22	10:02:23	1.061	1.287												
4	2006/11/22	10:02:23	1.652	0.995												
5	2006/11/22	10:02:23	1.316	1.389												
6	2006/11/22	10:02:23	1.35	1.412												
7	2006/11/22	10:02:23	1.475	1.599												
8	2006/11/22	10:02:23	1.604	0.965												
9	2006/11/22	10:02:24	2.06	4.92												
10	2006/11/22	10:02:24	2.51	2.674												
11	2006/11/22	10:02:25	1.099	2.999												
12	2006/11/22	10:02:25	1.506	1.181												
13	2006/11/22	10:02:25	2.216	3.161												
14	2006/11/22	10:02:26	2.256	1.067												
15	2006/11/22	10:02:26	1.097	0.471												
16	2006/11/22	10:02:27	1.668	1.824												
17	2006/11/22	10:02:27	1.105	0.722												
18	2006/11/22	10:02:29	4.891	1.965												
19	2006/11/22	10:02:29	0.966	3.195												
20	2006/11/22	10:02:30	2.604	1.914												
21	2006/11/22	10:02:31	3.263	2.353												
22	2006/11/22	10:02:32	2.816	2.731												
23	2006/11/22	10:02:33	1.234	0.392												
24	2006/11/22	10:02:34	1.001	0.095												
25	2006/11/22	10:02:34	1.109	0.411												
26	Total		705	906												
27		24	2	2												
28																
29			1	1												
30																
31																
32																
33			1													
34			1													
35			2													
36																
37			1													
38			1													
39																
40																
41																
42			1													
43																

(8) Start measuring by clicking on “Start Measuring” button.

*When the Large Particle Sensor with IP address that you input exists in network, the connection condition will show . If it does not exist in network, the connection condition will be .

Note: Please do not input the wrong IP address. If you input IP address that you have assigned to Large Particle Sensor, it can not have connection.



- (9) To identify particular particles, certain cells can be selected.
Hold Ctrl., then click the cells to select. Selected cells will be highlighted in pink.
To cancel the selected cells, hold Del and select cells.
- (10) When the Large Particle Sensor detects certain selected particles, it will be shown on the window of “Selected Cell.”
- (11)The total number of particles that Large Particle Sensor has detected will be shown on the window of “Total Particles”.
*Please see the above window for an example, it shows that “Total Particles” are 59. “Particles in Selected Cell” are 9.

License for using Software

1. Connecting software "Particle Judgment Matrix Ver1.0" is the evaluating software of Large Particle Sensor. Shinyei Kaisha will be exempt from responsibility for compensation and not be responsible for the direct or indirect damage from this software.
2. Shinyei Kaisha will not be liable for anything including the guarantee for the performance of this software, the guarantee for the adequateness of purpose of usage, the guarantee of commercialbility, the guarantee for the accuracy and reliability of the conclusion of usage, the infringement of the third party or defect liability.
3. Copyright of this software belongs to only Shinyei Kaisha.
4. Do not distribute, rent, lease, loan this software to the third party.
5. These clauses will be valid when the buyer of this Large Particle Sensor started to use this software.

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