ANEMOMASTER Measuring Software for Windows

MODEL 6000-41

Operation Manual

KANOMAX

KANOMAX JAPAN INC.

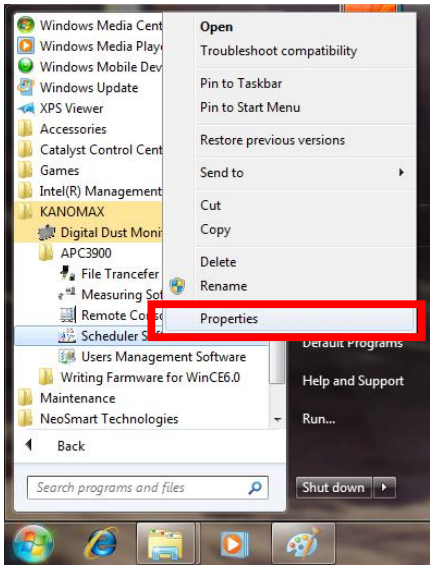
07001
12.03

Precautions When Using Kanomax Software Products in Windows Vista or 7

1. Setting icon of the software :

1. Click [Start] -> [ALL Programs] -> [KANOMAX] or right-click the desktop icon of the software.

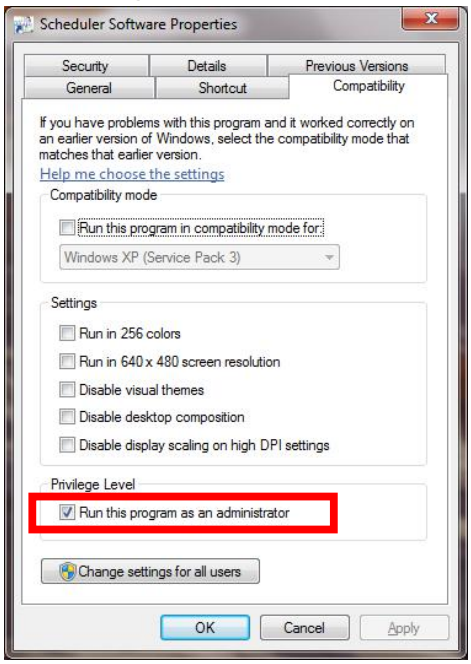
2. Right-click the icon of the software and click [Properties], or click [Properties] of the desktop icon.



3. Click the [Compatibility] tab in the Software Properties window.

4. Check "Run this program as an administrator" under Privilege Level.

5. Click [OK] to close the window.



Note: If you do not follow the above procedure, the software may abort with a runtime error when reading or

printing data.

2. For Stored data:

Stored data may not appear in Windows Explorer if it was saved in the C:¥ folder or one of the folders in Program Files (Program Files(x86) for 64 bit).

Click “Compatibility files” in Windows Explorer to display the data.

If you cannot perform this operation, or “Compatibility files” does not appear, you need to save the data in a folder such as “My Documents” which users can read and write to.

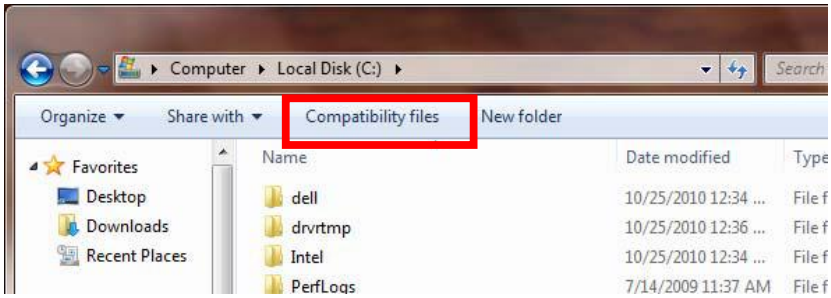


Table of Content

1. Before Using this Software

1.1 Statements

1. Copyright of this Software belongs to KANOMAX Japan, Incorporated.
2. The unauthorized use or duplication of this Software, either a whole or part of it, or its Operation Manual is strictly forbidden.
3. One set of this Software shall be provided to one KANOMAX Anemomaster.
4. KANOMAX Japan Inc. and its distributor(s) shall not be held responsible for any consequences caused directly or indirectly by the use of this Software and its Operation Manual.
5. The specifications and contents of this Software and its Operation Manual are subject to change for quality improvements without notice.

1.2 Glossary

This Operation Manual employs the following signs and expressions:

Sign/Expression	Description
CR	Carriage Return (0DH)
CRLF	Carriage Return (0DH) & Line Feed(0AH)
□	Space
XX.XX	Number & decimal point (X: 0-9) Example) 21.56
Key-entry: Integer 1～800	Enter using the keyboard an integer in the range of 1～800
Key-entry: 0.001～9.999, multiple of 0.001	Enter using the keyboard a value which is a multiple of 0.001 and within the range of 0.001-9.999
Select: 1, 6, 10, 20	Pick one value from the list: 1, 6, 10, 20

1.3 System requirements

・OS: Windows XP SP3 or Higher,Windows Vista SP2 or Higher,Windows 7 SP1 or Higher

・Anemometers: 6113, 6114, 6115, 6531, 6533, 6541, 6542, 6543, 6551, 6552, 6011, 6021, 6511, 6521, 6162, 6621, 6631,6553,6554,6561

1.4 Necessary thing

- KANOMAX Anemomaster instrument
- Communication Cable (RS-232C) or USB Cable
- Personal Computer
- This Software

2. Installation

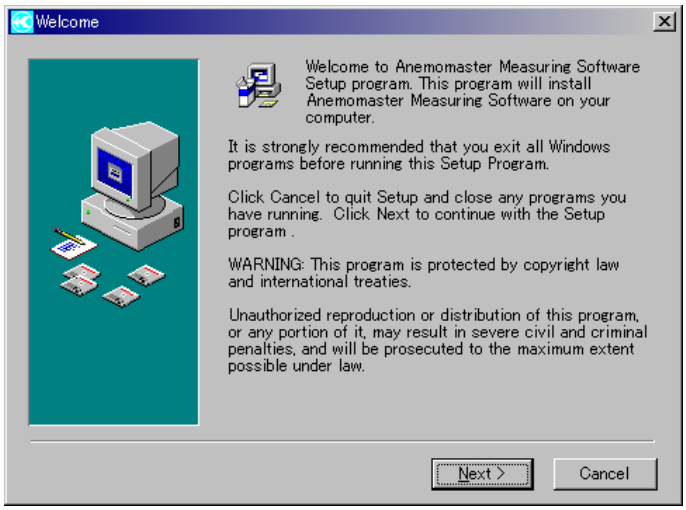
2.1 Before Installation

If previous version of this Software has been installed on your PC, it should be uninstalled first before installing this software to avoid any trouble.
You can refer to Operation Manual of the old version for the way of its uninstallation.

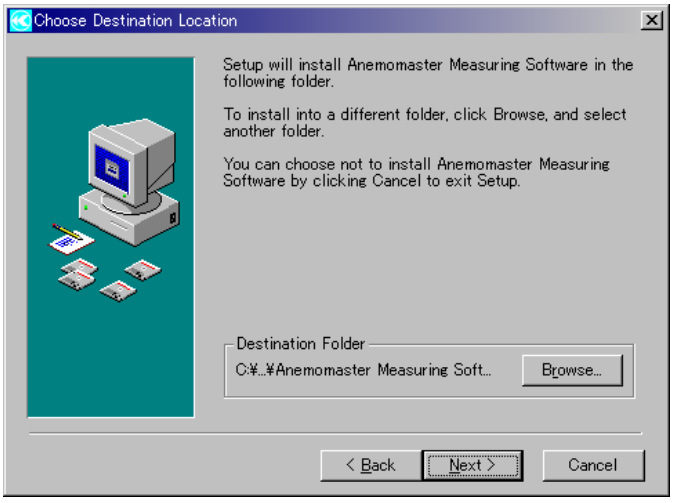
When installing the software, be sure to log in with the user having administrative rights and follow the procedure below.

2.2 Installation

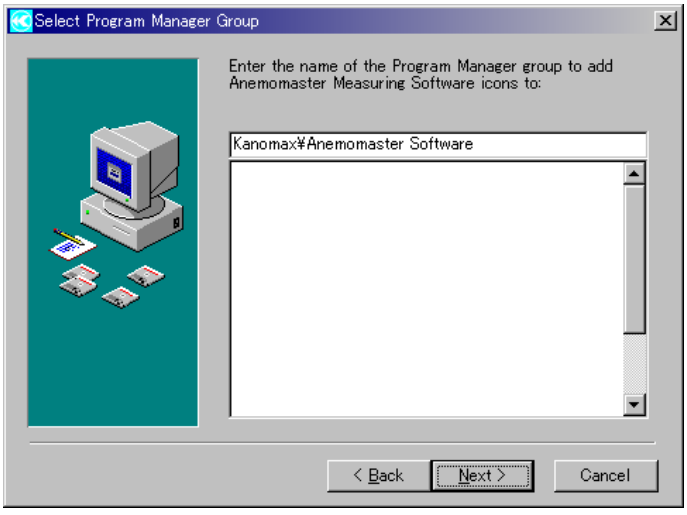
① Exiting any other programs first, then insert the CD-ROM into your CR-ROM drive.
In a second, the right Setup screen is shown automatically.
Click on [Next] to proceed.



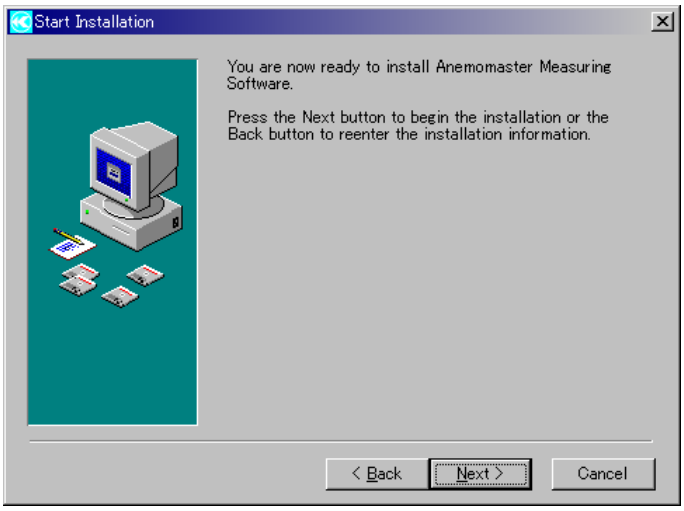
② You can confirm or select the destination of the folder which this software is installed into as per the right screen.



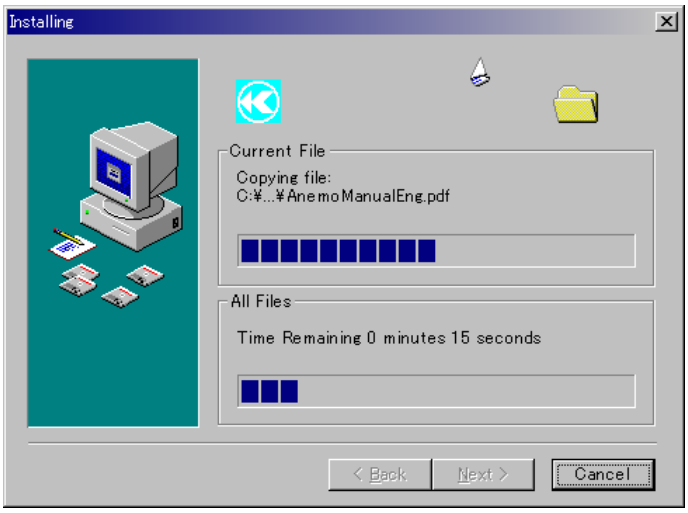
③ Program Manager group is made in the name of "Kanomax".
If no other choice, click on [Next].



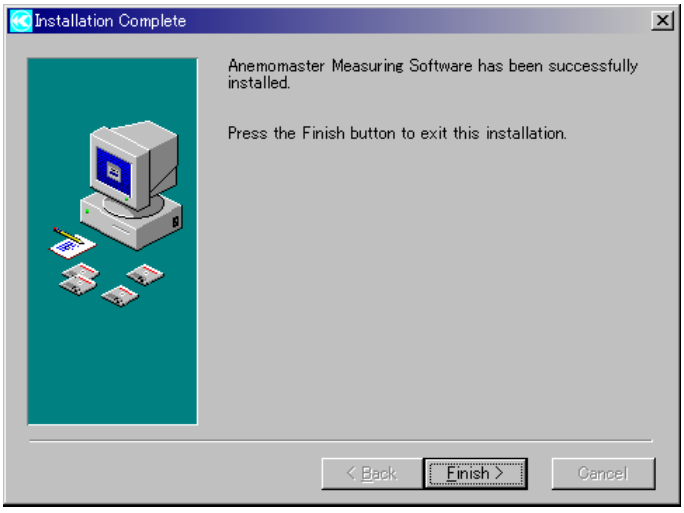
④ Confirm to execute the installation of this software ,then click on [Next].



⑤ Now installing.
Wait until the completion.

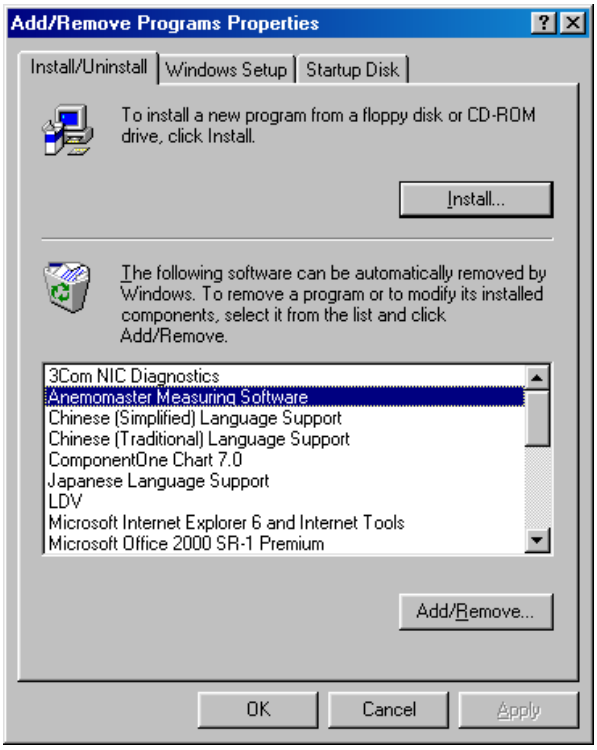


⑥ With the correct completion of the installation ,the right screen is shown.
You can finish the installation by clicking on [Finish].

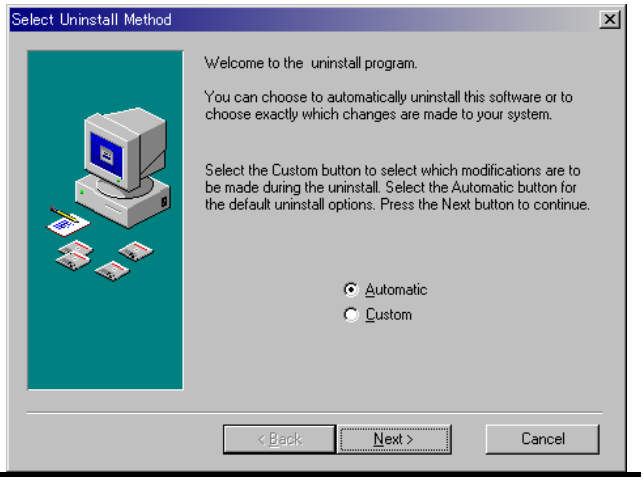


3. Uninstallation

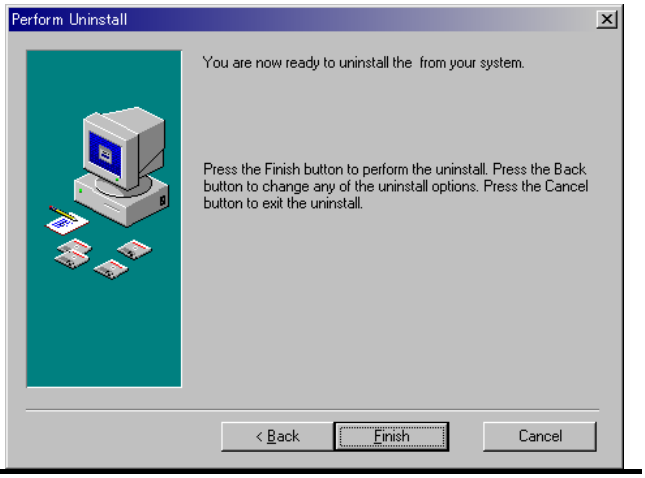
① Open [Control Panel] -[System] –[Add or Delete Program].
② Select “Anemomaster Measuring Software”, and click on [Add or Remove] button to uninstall.



③ Uninstallation method can be selected either in [Automatic] or [Custom].
(Recommendation: [Automatic])
You can proceed by clicking on [Next].



③ Clicking on [Finish] ,you can perform the uninstallation.



※Displayed screen may be different depending on the OS version of Windows

4. Installing Device Driver

4.1 Device Driver Installation

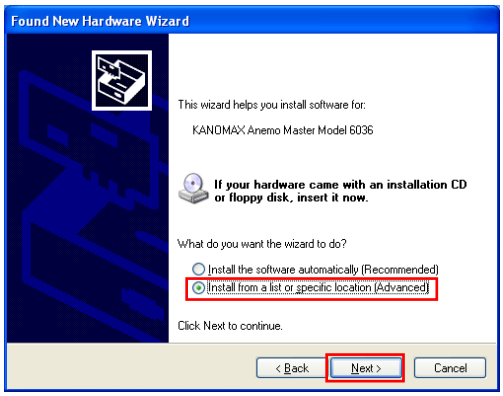
When installing the software, be sure to log in with the user having administrative rights and follow the procedure below.

When you connect the **CRIMOMASTER MODEL 6553/6554/6561**, “Found New Hardware Wizard” window will be displayed. Install the device driver following the procedure below. To install the device driver, be sure to insert the product CD-ROM into the CD-ROM driver.

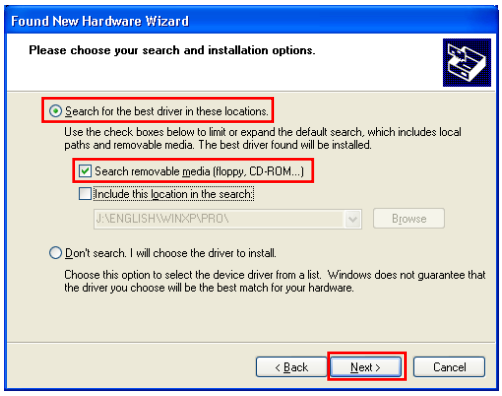
4.1.1 Windows XP

1) “Found New Hardware Wizard” window will be displayed.
Select “No, not this time”, and click [Next>]

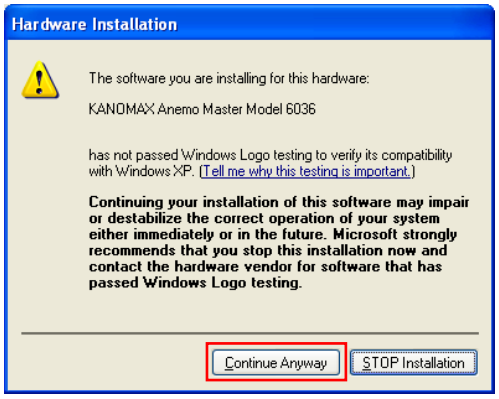
2) Select “Install from a list or specific location (Advanced) ,
and click [Next>]



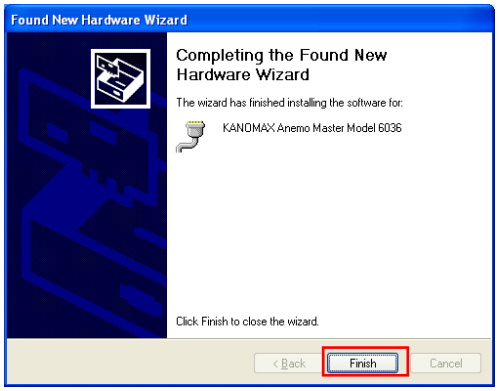
3) On the screen to choose your search and installation options,
select “Search for the best driver in these locations.”,
and check the box for “Search removable media
(floppy, CD-ROM…)”.
Then click [Next>] to start installation.



4) After installation starts, the dialog shown on the right will be displayed. Click [Continue Anyway].

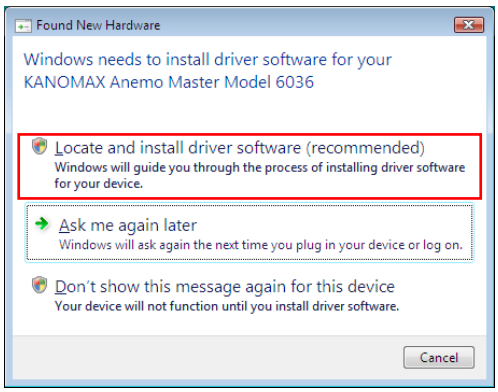


5) When installation completes, the screen shown on the right will be displayed. Click [Finish].



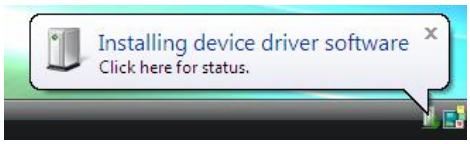
4.1.2 Windows Vista

1) The “Found New Hardware” wizard will appear.
Confirm that the installation disk is inserted in the CD-ROM drive and click “Locate and install driver software (recommended)”.

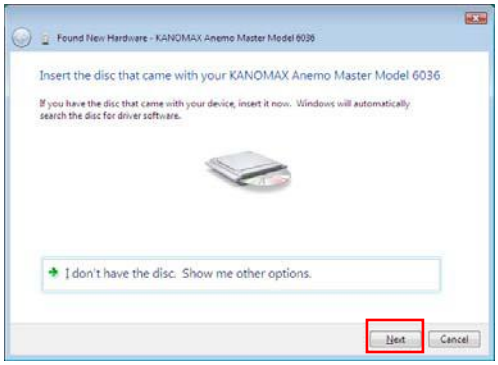


2) The “User Account Control” dialogue will appear.
Click “Continue”.

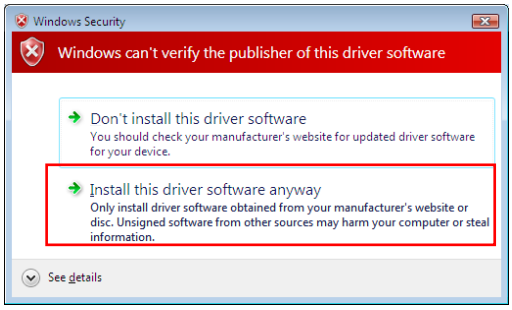
3) Please wait while the “Installing device driver software” message is being displayed in the lower right of the screen.



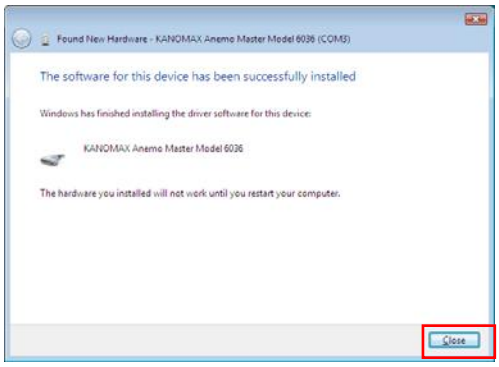
4) The “Found New Hardware” dialogue will pop up.
Click “Next”.



5) In the resulting “Windows Security” dialogue, click “Install this driver software anyway” to start the installation of the driver software.

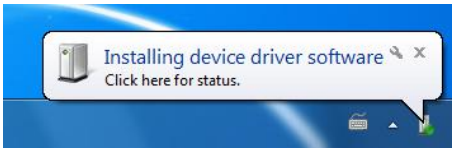


6) When the installation is complete as shown in the right figure, click “Close”.

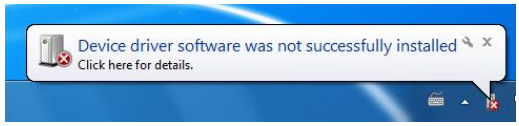


4.1.3 Windows 7

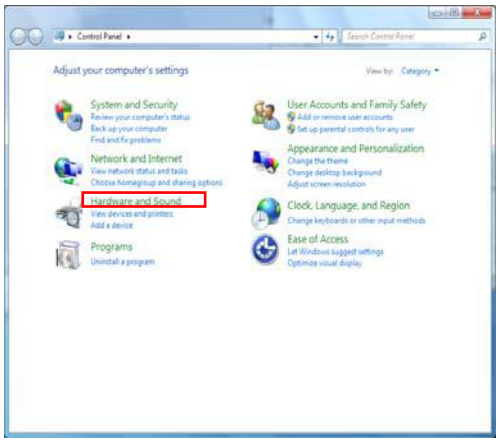
1) Please wait while “Installing device driver software” message is being displayed in the lower right of the screen.



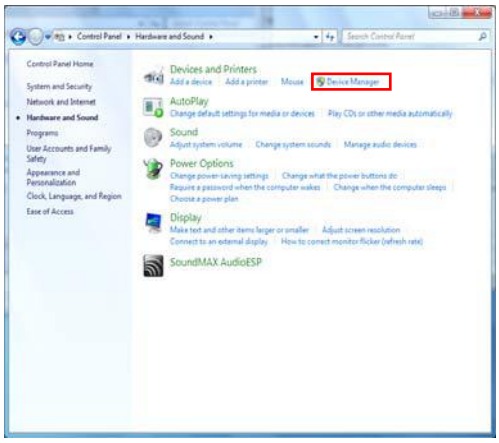
2) In a short time, “Device drive software was not successfully installed” message will appear.



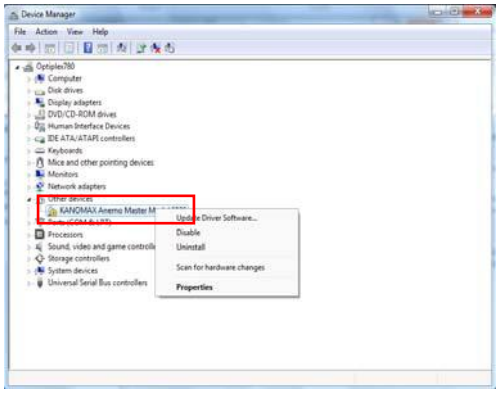
3) Click “Start” → “Control Panel” → “Hardware and Sound”.



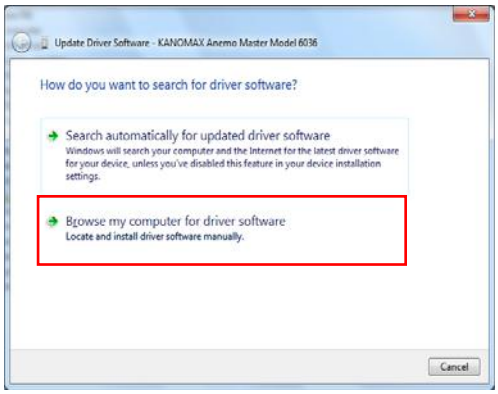
4) Click “Device Manager”.



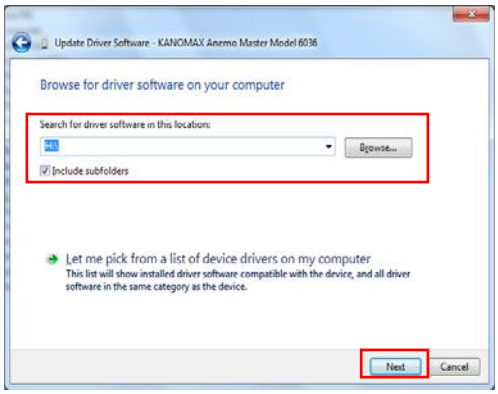
5) After opening the Device Manager window, confirm that “KANOMAX Anemo Master Model 6036” is listed in “Other Device” and right-click it.
Highlight and click on “Update Driver Software”.



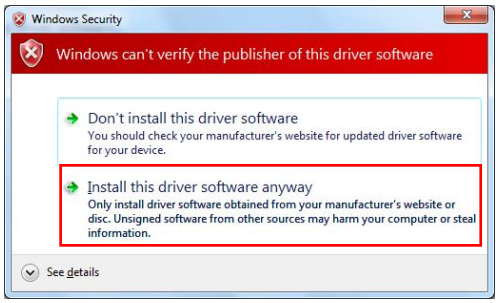
6) Click “Browse my computer for driver software”.



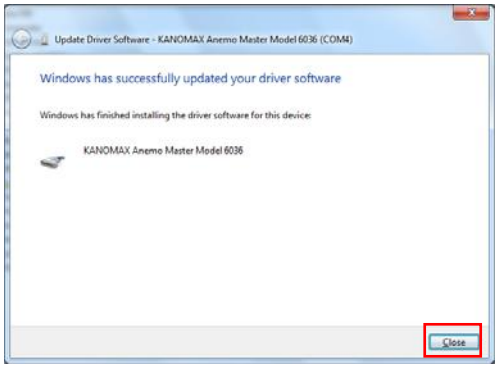
7) Type the name of the CD-ROM drive in the “Search for driver software in this location:” box. Click “Next”.



8) In the resulting “Windows Security” dialogue, click “Install this driver software anyway” to start the installation of the driver software.



9) When the installation is complete as shown in the right figure, click “Close”.



5. Basic steps to use this Software

1 Connecting Anemomaster to PC 📖 P.12

2 Start Software 📖 P.12

3 Setting parameters 📖 P.13

RS-232C parameters / Anemomaster settings / Measurement Parameter(s)

4 Display setting 📖 P.15

Display parameters (Time series graph / Data table)

5 Measurement 📖 P.18 | Monitoring 📖 P.19 | Transfer 📖 P.20

Measurement: PC-controlled measurement by pre-set parameters (i.e. # data, sampling time).

Monitoring: Real-time display of the raw data from Anemometer.

Transfer: Download stored data in Anemomaster to PC.

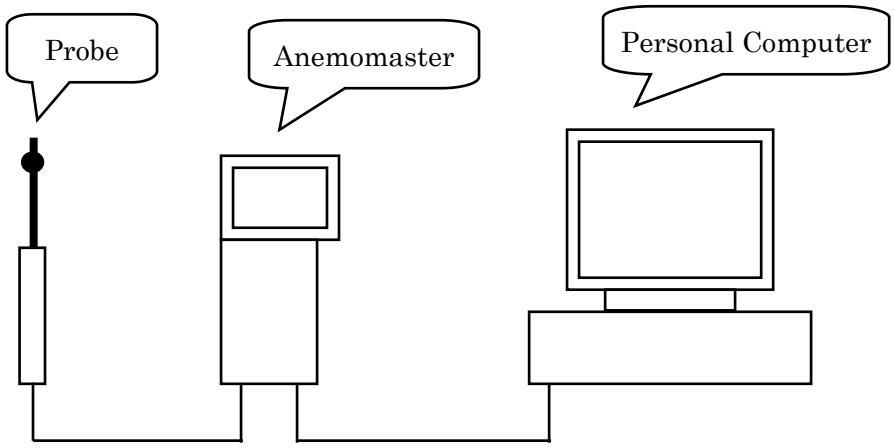
6 Save Data 📖 P.23

7 Exit Software 📖 P.23

6. Getting Started

6.1 Connecting Anemomaster to PC

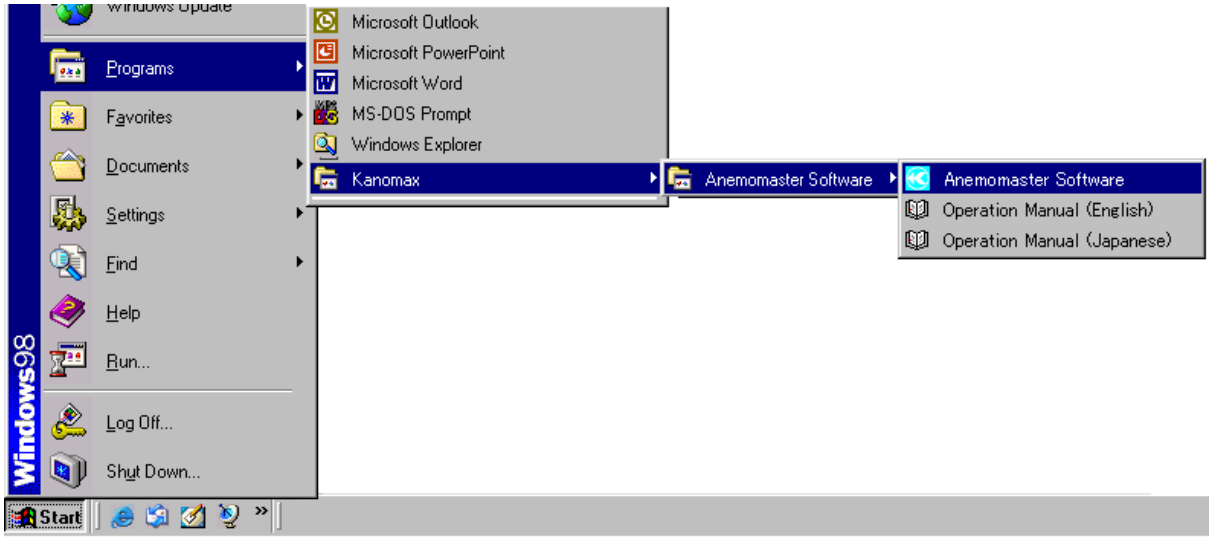
Connect RS-232C(or USB) communication jack of Anemomaster main body to the COM(USB) port of your PC by RS-232C(USB) communication cable.



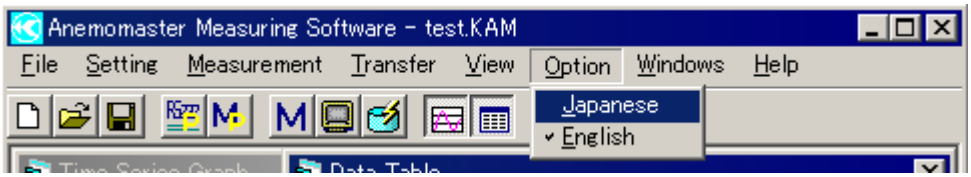
RS-232C cable or USB cable

6.2 Start Software

① Click on [Start] button on the Windows Task Bar.
② Click on [Program] button.
③ Click on [Anemomaster Software] on [Program] menu, and the start-up logo appears (below) and the Software starts. You can also start the Software by [My Computer]-[Local Disk]-[Program Files] -[Anemomaster Measuring Software].

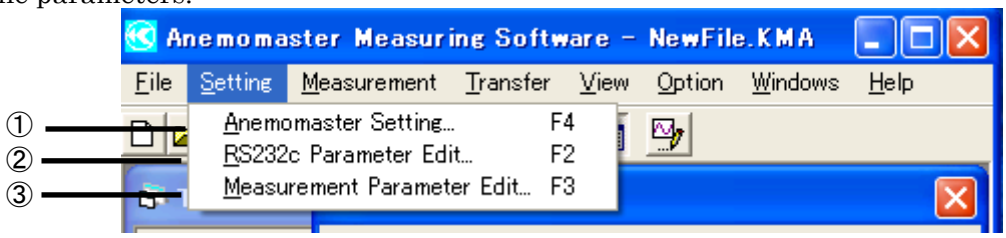


④ If you want to use the Software in Japanese, then select [Option]-[Japanese] from the Menu Bar. Once the language is selected, the Software will start up in the selected language afterwards.



7. Setting Parameters

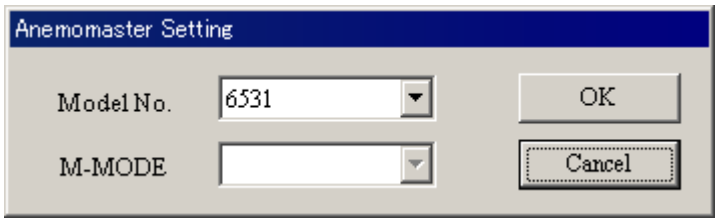
Click on [Setting] from Menu Bar, and following 3 options appear. Select one and click to open the dialog box to edit the parameters.



① Anemomaster Setting

Model number: Select one from the pull-down list.

M-Mode: Indicate measurement parameters. Corresponding parameters will be shown to the selected Anemomaster, as shown below:

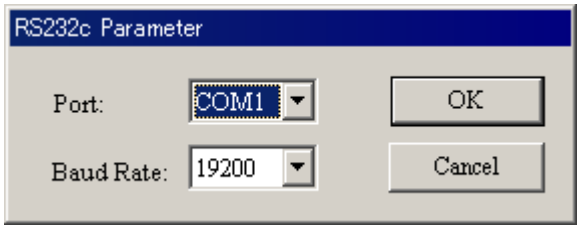


Model #	6113、6114、6115、6531、6533、6541、6542、6543、6561	6551, 6552 6553 6554	6011	6021	6511	6521	6162	6621	6631
M-Mode	—	V	VT	VT	VTH	VTH	VT	VT	VT、SP

V: Velocity Mode
VT: Velocity/Temperature Mode
VTH: velocity/Temperature/Humidity Mode
SP: Static Pressure Mode

※ For 6113, 6114, 6115, 6531, 6533,6561 and 654x series Climomaster: M-Mode will not appear (proceed with the default setting to the instrument)

② RS-232C parameters setting



Port: Select COM port on PC.
(COM1-COM8 selectable, must match with the CP's dedicated COM port).
Please see the following page for confirming PC's COM port.

Baud Rate: Select from 4800, 9600, 19200 and 38400bps.
Must match with the Baud Rate on the main body of your Anemomaster. (Please refer to the Operation Manual of your Anemomaster).

- ●Models with 4800bps: 6011, 6021, 6511, 6521, 6162, 6621, 6631
- ●Model that can select baud rate: 6113,6114,6115, 6531, 6533, 6541, 6542, 6543, 6551, 6552.6553, 6554,6561

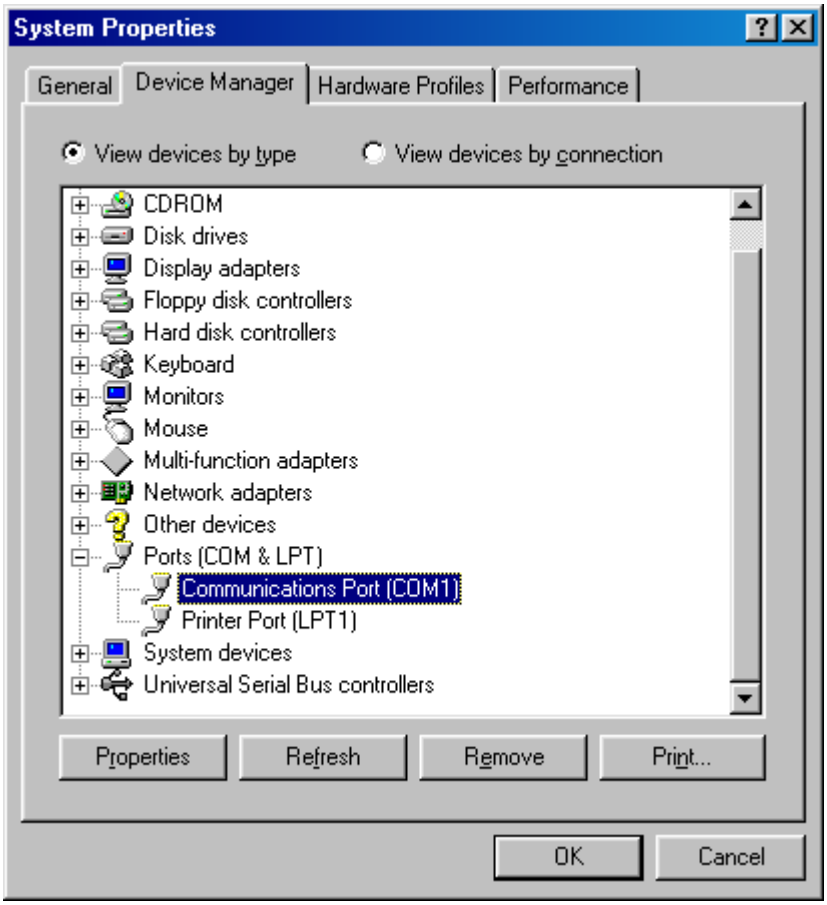
※ Model 6011, 6021, 6511 and 6521 are fixed with 4800bps.

Models with USB Connection

- ●When a model with a USB connection is connected to a computer, the serial number of the instrument will be added to the port. Please select the serial number that you would like to use. Must match with the Baud Rate on the main body of your Anemomaster. (Please refer to the Operation Manual of your Anemomaster).

<<< Confirmation of COM port of your PC >>>

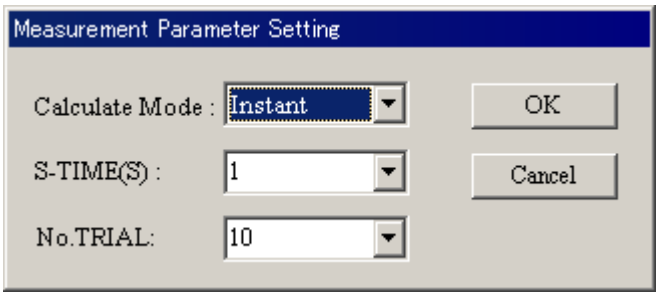
Select [My Computer] – [Control Panel] – [System] – [Device Manager] to open the following window. Select "Port(COM&LPT)" to check the COM port currently in use.



③ Measuring parameters setting

Select [Measurement Parameters Setting] to open edit box (shown right). You can make selections on the following parameters in the measurement.

The same edit box appears before Measurement starts, and you can edit parameters then.



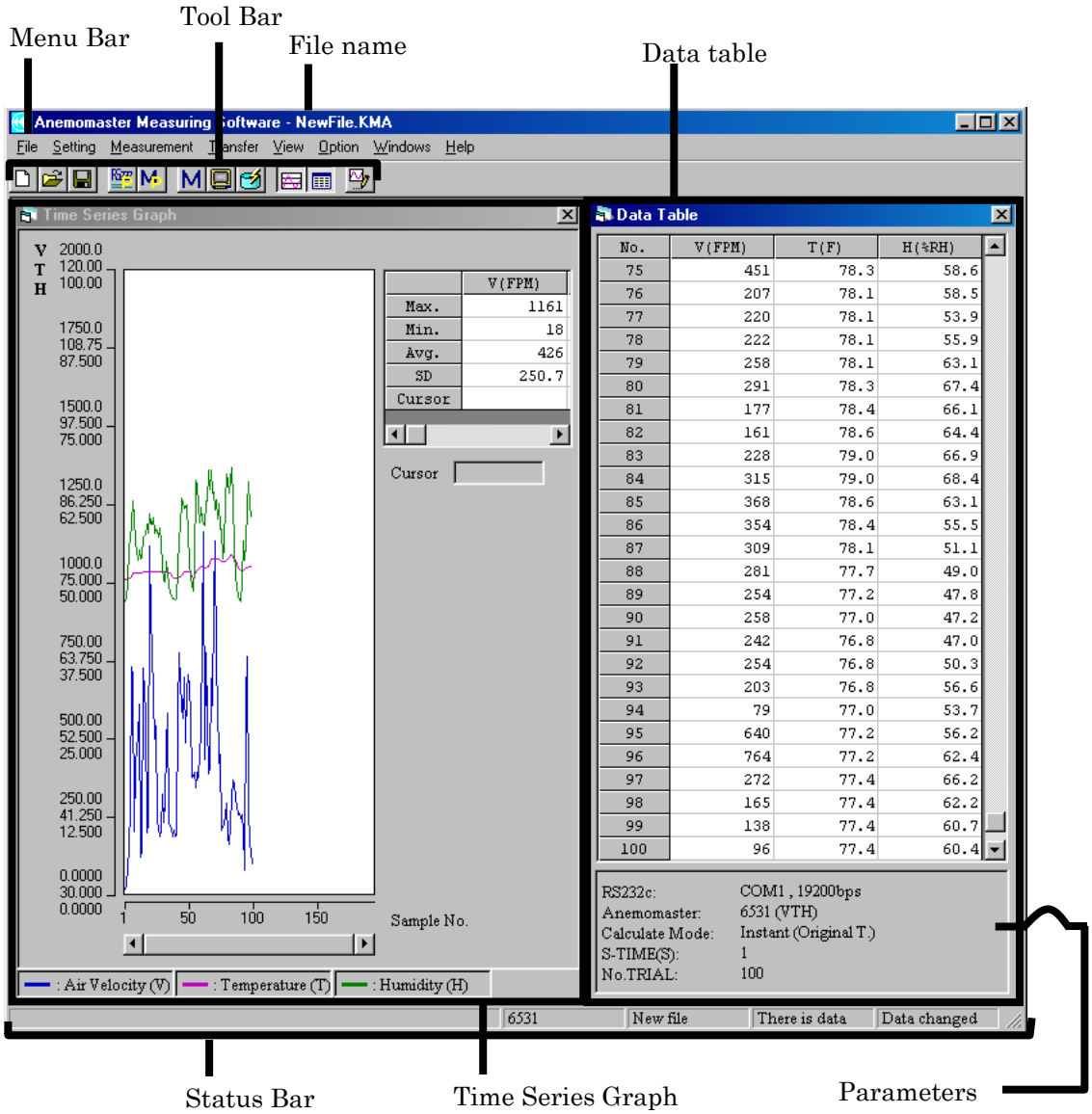
Parameter	Setting options
Calculation Mode	"Instant" or "Average"
S-TIME(S) Sampling Time (second)	Set the sampling time in # of seconds Key-entry: Integer 1-30000 Pull-down box: 1, 2, 3, 4, 5, 6, 10, 30, 60, 120, 300, 600
No. Trial※ # of data to record	Key-entry: Integer 1-30000 Pull-down box: 1, 6, 10, 60, 100, 200, 600, 1000

※Shown as DATA(N) on Models 6011, 6021, 6511, 6521, 6162 and 6631.

8. Display

8.1 Initial Screen

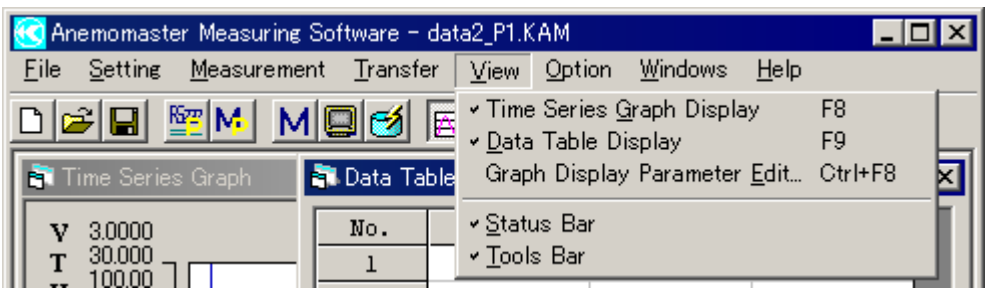
When you start the Software, the last file before exit appears on the display. When booted for the first time, you find the blank Data table and blank Time Series Graph windows.



■ **Select Display windows**

When you click on [View] of the Manu Bar, you have options of which windows to display (as shown on next page). Select [Time Series Graph] or [Graph Display Parameter Edit] to show Time Series Graph, or select [Data Table Display] to show Data table.

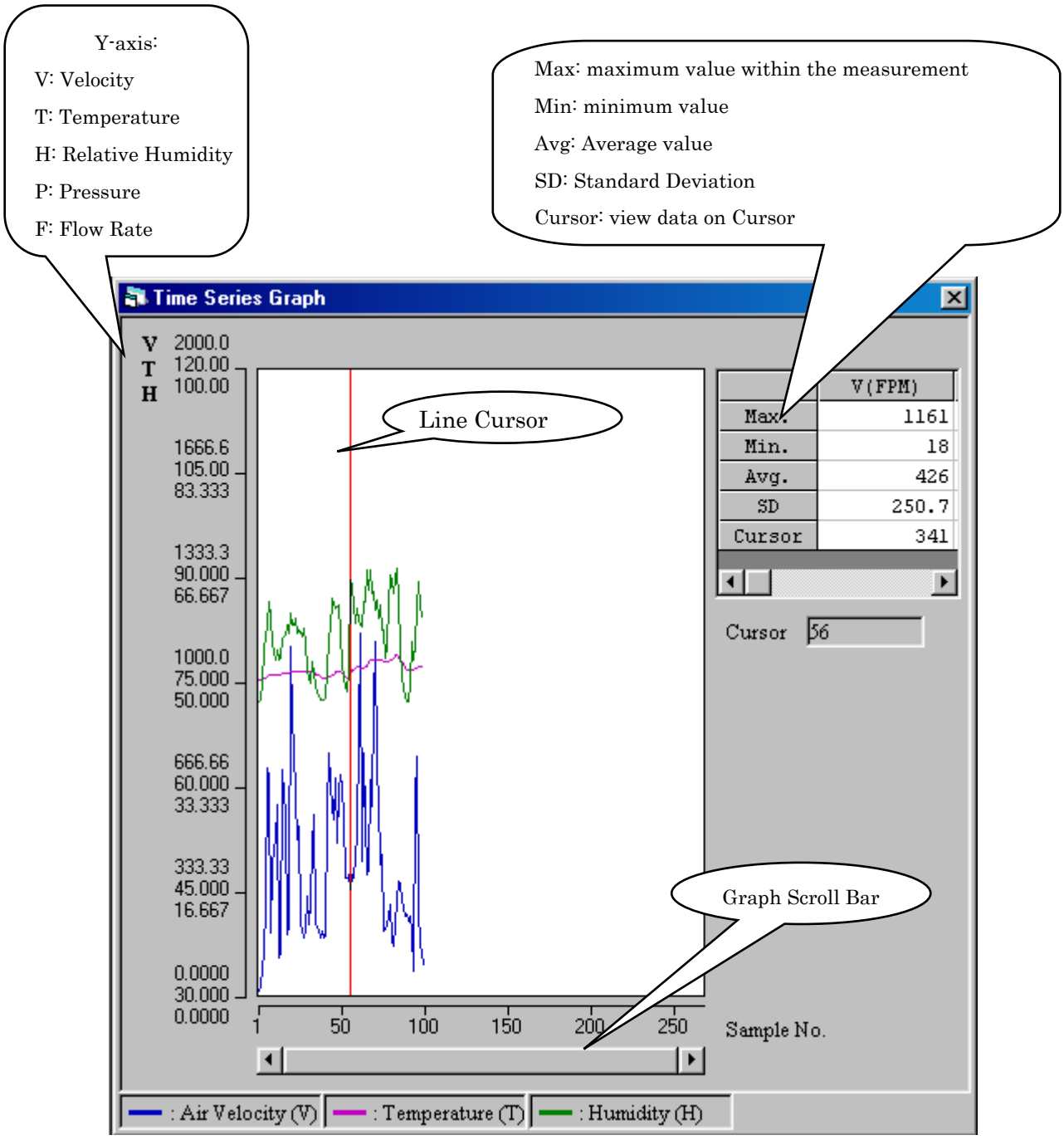
You can also click on  "Graph" or  "Data Table" icons.



8.2 Time Series Graph

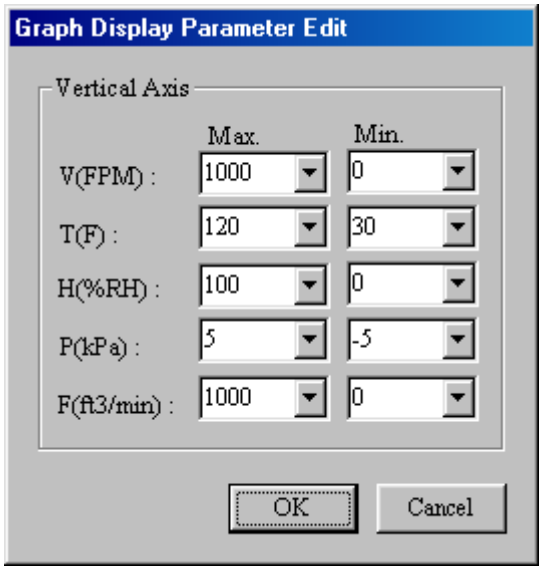
Time Series Graph (shown below) offers the following features:

- Adjust window size
- Instantaneous view of Velocity (or flow rate), Temperature and Humidity ("Pressure" shown separately).
- Edit display range - View data on a point by cursor
- View maximum, minimum, average and standard deviation within the measurement.



■ Edit display range (Y-axis) of Time Series Graph

Click on [View] on Menu Bar and select [Graph Display Parameters Edit] to open edit box (shown right). You can edit the graph's Y-axis range by entering values.



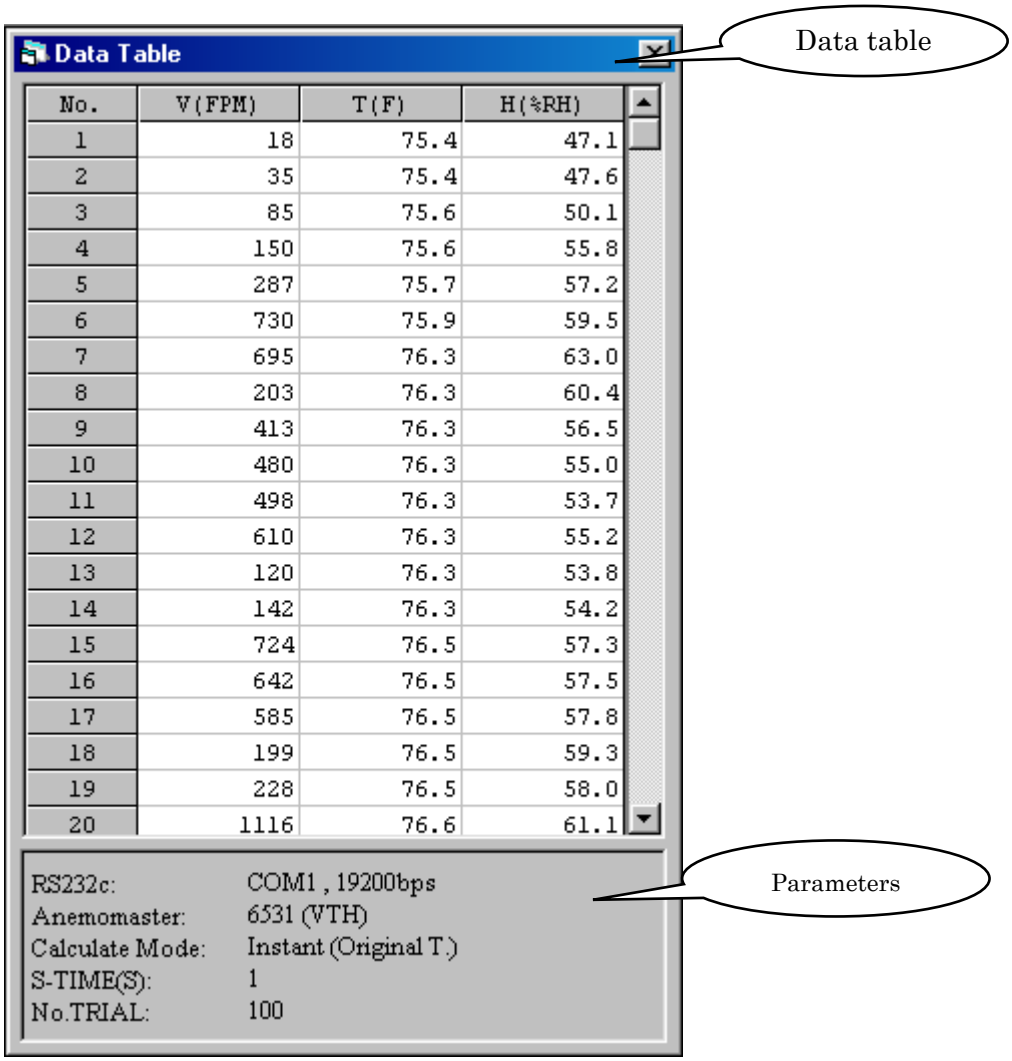
You can also open the edit box by clicking on  on Tool Bar.

※ Model 6011, 6021, 6511, 6521, 6162, 6621 , 6631, 6113 , 6114, 6115 are not capable of showing Flow Rate.

※ You can't change the range of X-axis.

8.3 Data table

Select [Data table Display] to view raw data and measuring parameters (as shown below).

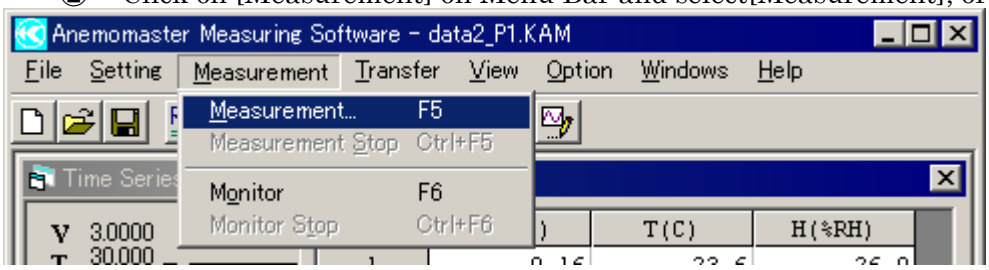


No.	V(FPM)	T(F)	H(%RH)
1	18	75.4	47.1
2	35	75.4	47.6
3	85	75.6	50.1
4	150	75.6	55.8
5	287	75.7	57.2
6	730	75.9	59.5
7	695	76.3	63.0
8	203	76.3	60.4
9	413	76.3	56.5
10	480	76.3	55.0
11	498	76.3	53.7
12	610	76.3	55.2
13	120	76.3	53.8
14	142	76.3	54.2
15	724	76.5	57.3
16	642	76.5	57.5
17	585	76.5	57.8
18	199	76.5	59.3
19	228	76.5	58.0
20	1116	76.6	61.1

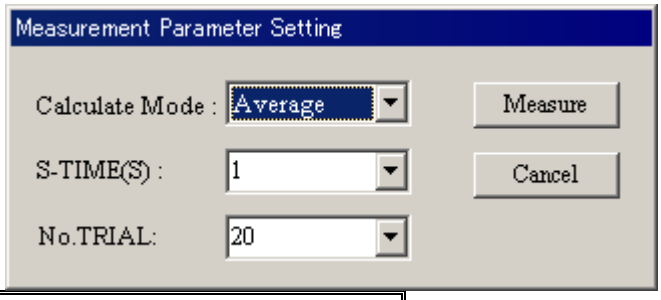
9. Measurement

① Set your Anemometer to initial mode (INITIAL/NORMAL) or monitormode(MONITOR).

② Click on [Measurement] on Menu Bar and select[Measurement], or click on on Tool bar.



④ Measuring parameter edit box appears (shown right, refer to Section 6 on page 8).



You can edit the following parameters

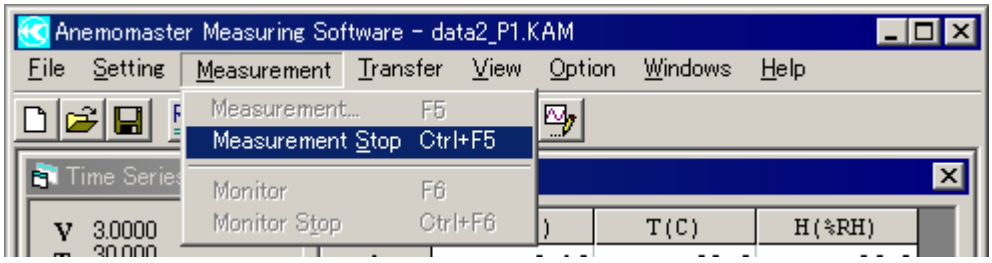
Parameter	Setting options
Calculation Mode	"Instant" or "Average"
S-TIME(S) Sampling Time(second)	Set the sampling time in # of seconds Key-entry: Integer 1-30000 Pull-down box: 1, 2, 3, 4, 5, 6, 10, 30, 60, 120, 300, 600
No. Trial※ # of data to record	Key-entry: Integer 1-30000 Pull-down box: 1, 6, 10, 60, 100, 200, 600, 1000

※Shown as DATA(N) on Models 6011, 6021, 6511, 6521, 6162 and 6631.

④ After editing parameters, click on [Measurement] button to start measurement. Your Anemomaster starts measuring, and you can view the Time Series Graph and Data table in real-time.

⑤ When you want to discontinue measurement

Select [Measurement Stop] from [Measurement] Menu, and the message appears to confirm stopping measurement. You can also click on  on Tool Bar to stop. When the measurement is incomplete, only the measured data can be saved. The number of data to save shall the actual number recorded before stopping measurement.



⑥ Saving Measurement Data

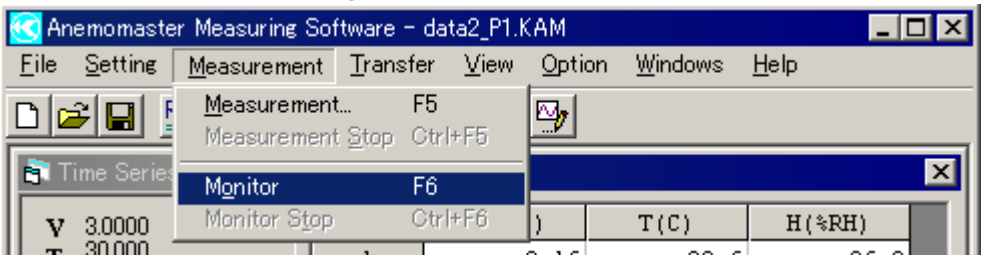
During measurement, the recorded data is stored on a temporary data file (ANEMO123.BKA). After completing measurement, you can save the data by selection [File]-[Save as].

You can save the data file either on [.TXT] or [.CSV] format. Once saved, the data file shall be automatically accompanied by another file (the same name as data file, with [.KAM] extension). See Section 13. on page 24 for data file format in more detail.

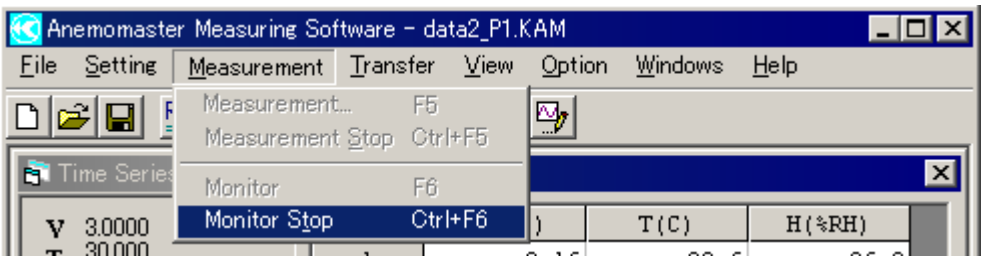
10. Monitoring

①Select [Measurement] - [Monitor] to start monitoring.

You can also click on  on Tool Bar.



②
DiscontinueMonitoring
Select [Measurement] – [Monitor Stop] to discontinue monitoring.
You can also click on  on Tool Bar.



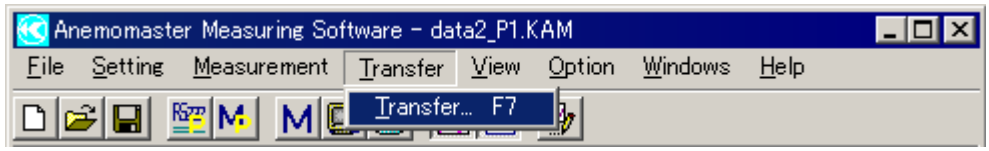
During Monitoring, you can view the raw data from Anemomaster on both Time Series Graph or Data table in real-time.
※ You can't save the raw data while in monitoring mode.

11. Data Transfer

11.1 Procedure

You can download the data store in the main body of your Anemomaster to your PC and save it as data file and to view Time Series Graph.

①┌ Make sure that your Anemomaster is in DATA OUTPUT mode (6113, 6114,6115, 6531, 6533, 6541-6543, 6551, 6552,6553,6554,6561: no need to check the mode: data transfer can be done from Normal mode), and select [Transfer]-[Transfer] from Menu.



You can also click on  on Tool Bar to transfer.

② Data transfer dialog box appears and displays the data parameters stored in Anemomaster. Data content on each page (=memory area) is displayed on dialog box. [---] is shown when no data is available. For Flow Rate data calculated by Model 6531, 6533, 6541-6543, 6551, 6552,6553,6554,6561 [POINT](=# of measuring point) is shown as [?????].

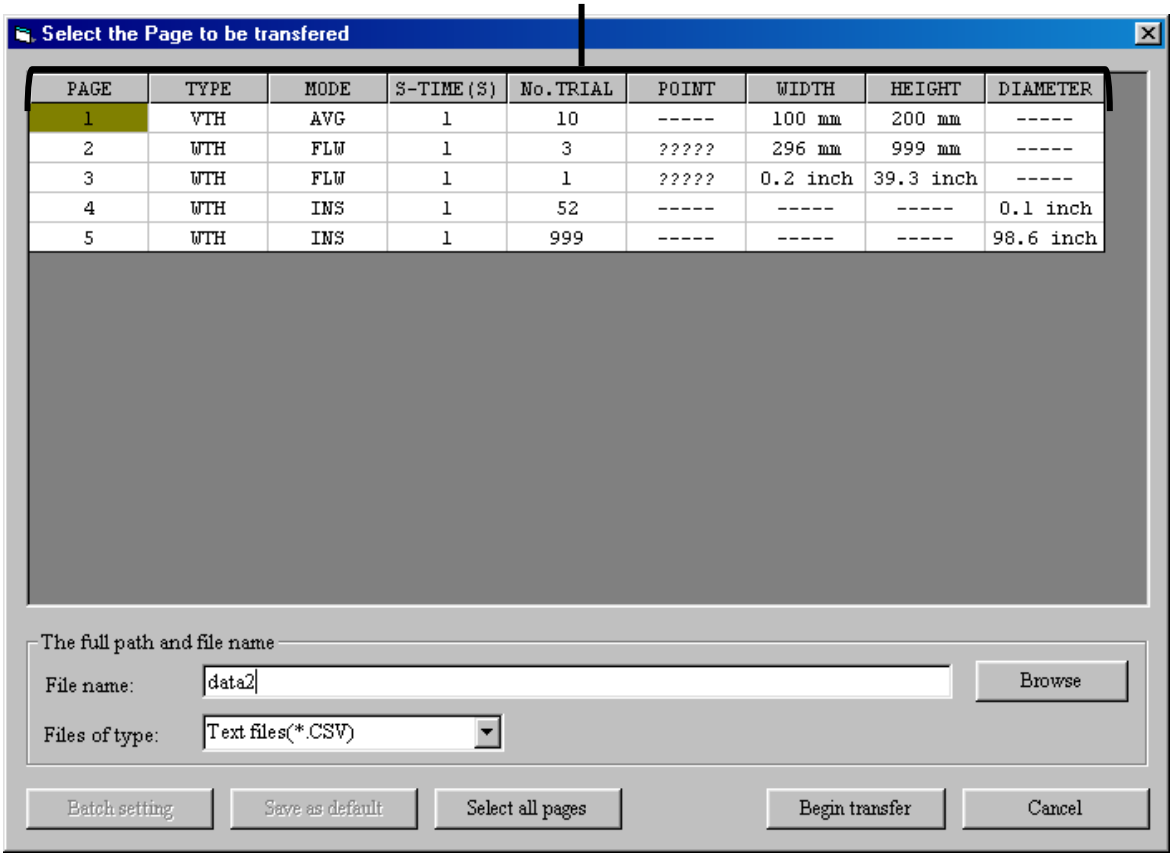
⑤ Setting Transfer parameters

Model 6113, 6114, 6115, 6531, 6533, 6541-6543, 6551, 6552, 6631, 6621,6162,6553,6554,6561: No need to edit setting manually.

Model 6011, 6021, 6511, 6521: Need to edit parameters manually in order to transfer data correctly. Match the parameters to correspond to that of the stored data in Anemomaster (as shown below). See the following Section 10.2, page 16 for more detail.

※ Parameters may vary by Anemomaster models

Transfer



⑥ Select Page & Folder
Click on the "page" (containing stored data) cell to select for transfer. You can click [All Page] button on the bottom to select all pages (selected cell will change colors).
Enter the name and address of a folder on your PC where you want to download the data. You can key-in the folder name or click on [Browse] button to search.
Default folder is the same folder where the Software is installed.
⑦ Click on [Transfer] button to start download.

⑧ When the download is complete, the message (shown right) appears, click on [OK] button. Time Series Graph and Data table of the transferred data file appears on the screen.

⑨ Storing data
Data file transferred to the designated folder is separated and saved by each page. They are automatically named by the system, adding the file name you choose with the page number, like an example shown below:
When you want to save the file containing 3 pages (Pages 1, 2, and 3) with the file name "TEST"
-> following 3 files are created by the system.
Data on page 1: Test_P1.CSV(or Test_P1.TXT)
Data on page 2: Test_P3.CSV(or Test_P3.TXT)
Data on page 3: Test_P5.CSV(or Test_P5.TXT)
※ [.KAM] file accompanying each file saved is also created by the system. Please refer to Section13, page 24.

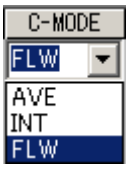
11.2 Setting Transfer parameters

You need to enter or edit transfer parameters for Models 6011, 6021, 6511 and 6521 in order to transfer data correctly. You need to match the parameters to correspond to that of the stored data in Anemomaster.

■ Ways to enter / edit parameters

No.1 a) Double-click on a cell which you can enter or edit, and the pull-down list appears.
b) Select a parameter from the list.

No.2 a) Move the cursor to the cell you want to enter / edit.
b) Push [Enter] key, and the pull-down menu appears.
c) Select a parameter from the list.



No.3 a) Move the cursor to the cell you want to enter / edit.
b) Enter a value using the keyboard.

See the table of parameters on next page for more details.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Page	M-MODE	C-MODE	S-TIME(S)	DATA(N)	POINTS	INT(min)	AREA(m^2)	Comment
1	VTH	FLW	60	32	3	-----	66	
2	VTH	AVE	60	3	-----	-----	-----	
3	VTH	FLW	60	17	10	-----	66	
4	VTH	AVE	60	3	-----	-----	-----	
5	VTH	AVE	60	3	-----	-----	-----	

Transfer Parameter	Parameter Options
①Page # of Page in memory	Automatically transferred, no need to enter / edit.
②M-MODE Measuring Mode	Automatically transferred, no need to enter / edit.
③C-MODE Calculation Mode	Select : Average(Normal), Interval(Climate), Flow Rate ,Multi Flow Rate
④S-TIME(S) Sampling time(second)	Select from pull-down list or enter a value using the keyboard.
⑤DATA(N) # of data stored	☐When "Average(Normal)" is selected for C-MODE: Value automatically transferred, no need to enter / edit. ☐Other options for C-MODE: Select from pull-down list or enter a value using the keyboard.
⑥POINT # of points where data was taken	Automatically transferred, no need to enter / edit.
⑦INT(min) Measuring Interval(min)	When "Interval(Climate)" for C-MODE: Enter / edit a value. Other than "Interval(Climate)" for C-MODE: no need to enter/edit.
⑧AREA(m^2) Duct area(㎡)	When "Flow Rate" for C-MODE: Enter / edit a value. Other than "Flow Rate" for C-MODE: No need to enter/edit.
⑨Comment	You may add comments to each page section, which will be saved in [.KAM] file and you can view the comments on [File]-[File Properties]. You do not have to enter comments.

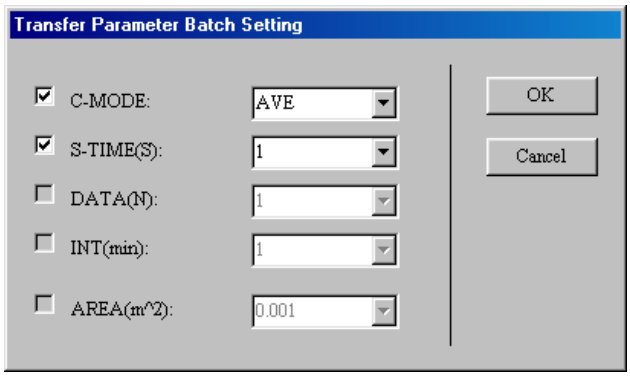
※ C-MODE options available for Model 6511/6521 are "Normal", "Climate", "Flow Rate".

※ C-MODE options available for Model 6011/6021 are "Average", "Interval", "Flow Rate".

■ Entering/Editing same parameters for all pages

If the parameters of all pages in Anemomaster memory is the same, you can short-cut the entry/edit by clicking on Batch setting button to show the edit dialog box (shown right).

Check the parameter you want to enter/edit and select or enter a value in each box. The parameters entered on this dialog box will apply to all pages.

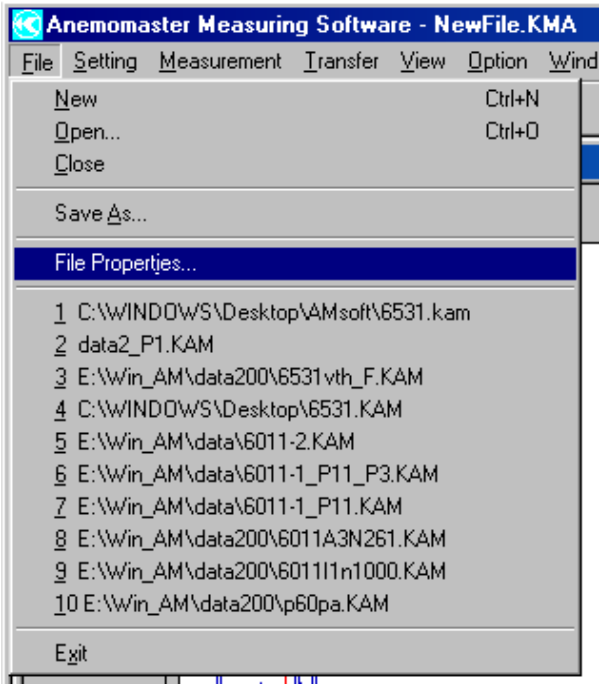


■ Save parameters setting

Click on Save as default button to save the current parameter setting as Default.

12. [File] Menu

You can create, open, close or save a file from [File] on Menu Bar.



12.1 Create a new file

Select [File]-[New] to open a new file.

(1) When there is unsaved data in memory, the dialog box appears to confirm saving data before opening a new one.

(2) New file opens with a temporary file name "NEWFILE.KAM". The new file succeeds the measuring parameters of the previously opened file.

12.2 Open a file

Select [file]-[Open] to open an existing file.
The dialog box appears and you can select the file you want to open.

12.3 Close a file

Select [File] – [Close] to close a file.

(1)When there is unsaved data in memory, the dialog box appears to confirm saving the file.
You can choose either [.TXT] or [.CSV] format to save the data.

(2)Then the current file is closed.

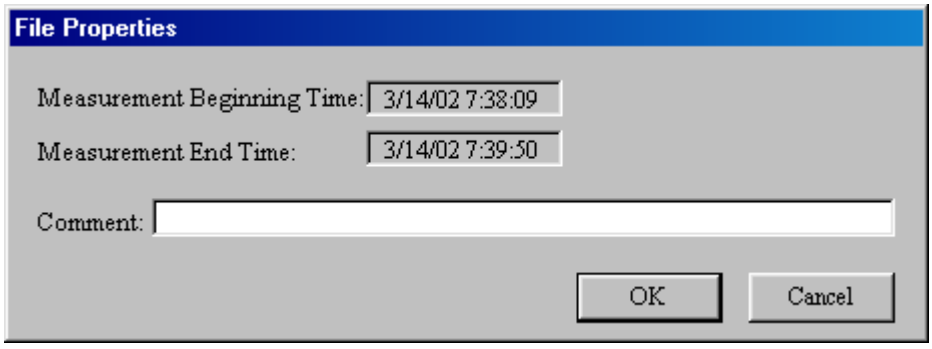
(3)All windows associated with the closed file will also be closed, leaving MDI Window screen..

11.4 Save a file

Select [File]-[Save As] to save a file. The dialog box appears and you can save the data under the file name you enter. You can choose either [.TXT] or [.CSV] format to save the data.

11.5 File Properties

Select [File]-[File Properties] to view the following dialog box. You can enter / edit your comment on the data file. For the data file transferred (downloaded) from Anemomaster, [Measuring Start/Measuring End] time are shown [-----].

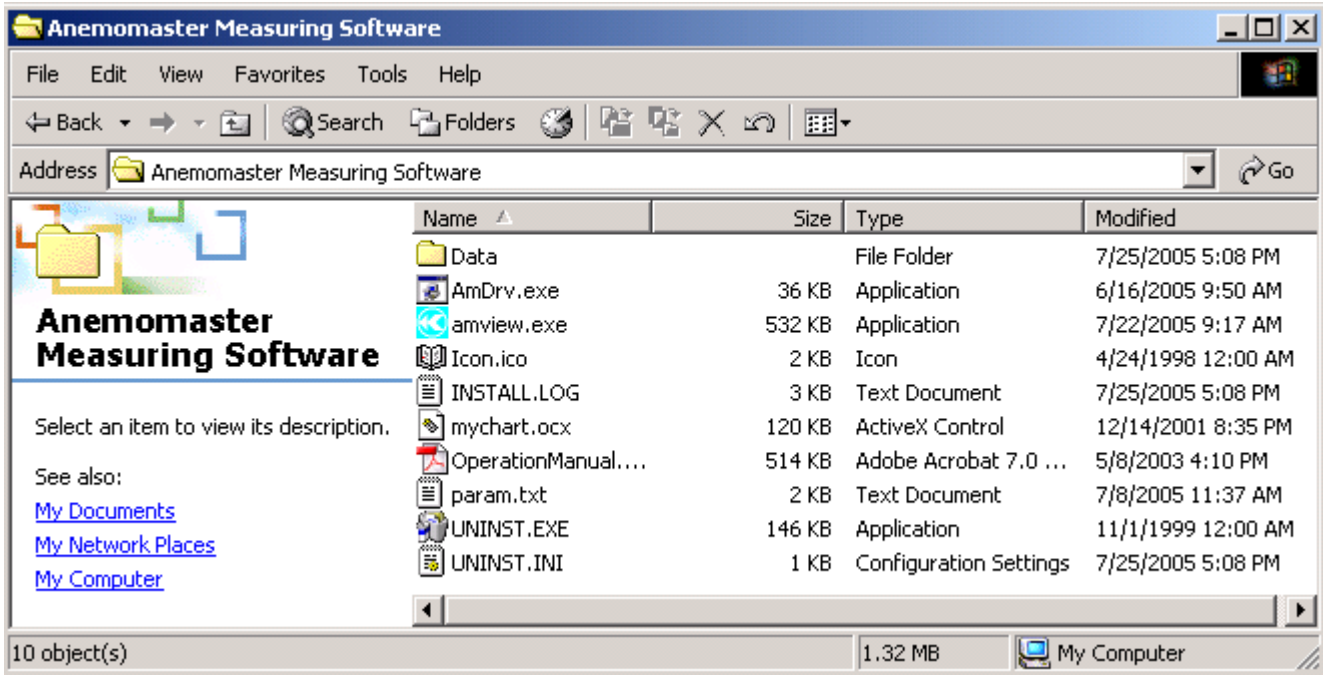


13. Data files

13.1 File formats

The data file is saved respectively by the following forms.

In the case of not specifying the folder where file is saved, The data file is saved in the folder of [My Computer]–[Local Disk]–[Programs files]–[Anemomaster Measuring Software]–[data]. (Refer to the figure below.)



Besides the data files you create and/o save, there are other types of data files created by the system (Software). The following is the list of data files and formats used in this Software:

Data file (CSV)	・Fie name: [(name).CSV] ・Format: CSV format ・ Content: Measured data and parameters(RS-232C setting, Measuring parameters and Calculation parameters, automatically added by the Software) ※ See 13.2 Data file structure (next page) for more detail.
Data file (Text)	・File name: [(name).TXT] ・Format: Text format Content: Measured data and parameters(RS-232C setting, Measuring parameters and Calculation parameters, automatically added by the Software) ※ See 13.2 Data file structure (next page) for more detail.
Base Data file ※used in the system	・File name: [(name).KAM] (KAM stands for "KANOMAX Anemomaster") * This Software uses the content of this file to store, process and display data.
Windows information file ※used in the system	・File name: [(name).KAI] ・ Content: File comment, Graph Display parameters, each windows information (size & position when closed). * Information is saved each time you close the Software; next time you start the Software, the previous data file and windows shall re-appear.

13.2 Data file structure

Data file you create and save (either .CSV format or .TXT format) contains the following sections: "Parameter" section, "Calculation" section and "Data" section. The content of each section is shown below.

1) Parameter section

Measuring Parameters are recorded in this section. Data content varies depending upon your Anemomaster instrument. Check the content by the sign (◎/●/○) for your Anemomaster shown below.

◎: All Anemomaster models

●: Model 6531, 6533, 6541, 6542, 6543, 6551, 6552,6553,6554,6561

○: Model 6011, 6021, 6511, 6521, 6162, 6621, 6631

Content			Description
[Software version]	Ver.2.37 CRLF	◎	Software version ex)Ver.2.37
[Measurement beginning time]	#2000-01-20 13:46:29# CRLF	◎※1	Measurement Start Time
[Measurement end time]	#2000-01-20 13:48:10# CRLF	◎※1	Measurement End Time
[Model number]	6011 CRLF	◎	Anemomaster Model ex) 6011
[Measurement mode]	VT CRLF	◎※2	Measurement Mode ex) VT
[Data transfer mode]	Memory Data Transfer CRLF	◎	Original Data Transfer (Measurement) Memory Data Transfer (Data Transfer)
[Calculation mode]	Flow Rate CRLF	◎	In Measurement: Average, Instant In Data Transfer of stored data: Average, Interval, Flow Rate,Multi Flow Rate
[S-TIME(S) -- Sampling interval (s)]	10 CRLF	◎※1	# of seconds ex) 10 seconds
[DATA(N) -- Number of sampling data],	20 CRLF	○	# or data recorded ex) 20 data
[No.TRIAL -- the Number of Trial]	20 CRLF	●※3	# of data recorded ex) 20 data
[POINTS -- Number of measurement]	5 CRLF	◎※4	# of measurements ex) 5 measurements
[WIDTH -- Width of Duct(mm)]	200 CRLF	●	Rectangular Duct size (width) ex) 200mm
[HEIGHT -- Height of Duct(mm)]	300 CRLF	●	Rectangular Duct size (height) ex) 300mm
[DIAMETER -- Diameter of Duct(mm)]	----- CRLF	●	Round Duct size (diameter)
[INT(min) -- Measurement interval(min)]	----- CRLF	○	# of minutes
[AREA(m2) -- Duct sectional area(m^2)]	0.2 CRLF	○	Cross-sectional area of Duct

* "-----" indicates the data not available or invalid.

※1 It is not displayed in case of Model6113,6114,6115 memory data transmission.

※2 "VTP" is displayed when Model6113 ,6115 has the data of Velocity ,Temperature and Pressure.

※3 It can be shown even on Model 6113,6114,6115.

※4 It is not displayed in FLOWRATE MODE of Model6531,6533,6541,6542,6553,6554,6561 and 6543, 6551, 6552 and in Model 6113,6114,6115.

2) Calculation section

Calculated values from the measured data are stored in this section.

Content	Example	Comments
V (MODEL6551, 6552,6553,6554) On Flow Rate Mode, Flow Rate (m^3/h、m^3/min) data is also shown for Models 6551, 6552.		
"　　", "V(m/s)" CRLF "Max.", XX.XX CRLF "Min.", XX.XX CRLF "Avg.", XX.XX CRLF "SD", XX.XXX CRLF	"　　", "V(m/s)" "Max. ", 15.21 "Min.", 10.31 "Avg.", 12.68 "SD.", 1.413	Maximum V(m/s) Minimum V(m/s) Average V(m/s) Standard Deviation, V(m/s)
VT (MODEL6162,6011,6021,6541,6542,6543,6551,6621, 6631,6561) ※ On Flow Rate Mode, Flow Rate (m^3/h、m^3/min) data is also shown for Models 6541, 6542 6543.		
"　　", "V(m/s)", "T(℃)" CRLF "Max.", XX.XX , XXX.X CRLF "Min.", XX.XX , XXX.X CRLF "Avg.", XX.XX , XXX.X CRLF "SD", XX.XXX, XXX.XX CRLF	"　　", "V(m/s)", "T(℃)" "Max. ", 15.21 , 26.1 "Min.", 10.31, 25.5 "Avg.", 12.68, 25.8 "SD.", 1.413, 0.18	Maximum V(m/s), T(℃) Minimum V(m/s), T(℃) Average V(m/s), T(℃) Standard Deviation, V(m/s),T(℃)
VTH (MODEL6521,6511,6531,6533) ※ On Flow Rate Mode, Flow Rate (m^3/h、m^3/min) data is also shown for Models 6531, 6533.		
"　　", "V(m/s)", "T(℃)", "H(%RH) " CRLF "Max.", XX.XX, XXX.X, XXX.X CRLF "Min.", XX.XX, XXX.X, XXX.X CRLF "Avg.", XX.XX, XXX.X, XXX.X CRLF "SD.", XX.XXX, XXX.XX, XXX.XX CRLF	"　　","V(m/s)", "T(℃)", "H(%RH) " "Max.", 15.21, 26.1, 66.2 "Min.", 10.31, 25.5, 65.6 "Avg.", 12.68, 25.8, 65.9 "SD.", 1.413, 0.18, 0.08	Maximum V(m/s),T(℃),RH(%RH) Minimum V(m/s),T(℃),RH(%RH) Average V(m/s),T(℃),RH(%RH) Standard Deviation V(m/s), T(℃),RH(%RH)
※[1]SP (6531,6533,6542,6541,6543,6551, 6552, 6631,6553,6554,6561)		
"　　"," SP(kPa) " CRLF "Max.", XX.XX CRLF "Min.", XX.XX CRLF "Avg.", XX.XX CRLF "SD.", XX.XXX CRLF	"　　", "SP(kPa)" "Max.", 0.15 "Min.", -0.12 "Avg.", -0.02 "SD.", 0.064	"Max.", 0.15 "Min.", -0.12 "Avg.", -0.02 "SD.", 0.064
MODEL 6113, ※[2] 6114, 6115		
"　　", "V(m/s)", "T(℃)", "P(kPa) " CRLF "Max.", XX.XX, XXX.X, XXX.X CRLF "Min.", XX.XX, XXX.X, XXX.X CRLF "Avg.", XX.XX, XXX.X, XXX.X CRLF "SD.", XX.XXX, XXX.XX, XXX.XX CRLF	"　　","V(m/s)", "T(℃)", "(kPa) " "Max.", 15.21, 26.1, 0.11 "Min.", 10.31, 25.5, 1.05 "Avg.", 12.68, 25.8, 1.02 "SD.", 1.413, 0.18, 1.01	Maximum V(m/s),T(℃), P(kPa) Minimum V(m/s),T(℃), P(kPa) Average V(m/s),T(℃), P(kPa) Standard Deviation V(m/s), T(℃),P(kPa)

※1: Model6531, 6533, 6541, 6542, 6543, 6551, 6552,6553,6554,6561: The pressure measurement function is an option.

※2: Model6114: The pressure measurement function is an option.

3) Data section

Measured data transferred to PC is stored in this section.

Content	Example	Comments
V (MODEL6551, 6552,6553,6554)		
On Flow Rate Mode, Flow Rate (m^3/h、m^3/min) data is also shown for Models 6551, 6552.		
"No.", "V(m/s)" CRLF " 1", XX.XX CRLF " 2", XX.XX CRLF . . . " N", XX.XX, CRLF	"No.", "V(m/s)" " 1", 10.21 " 2", 15.31 " 3", 12.68 " 4", 14,10 " 5", 15,04	1st data: V(m/s) 2nd data: V(m/s) . . . Nth data: V(m/s)
VT (MODEL6162,6011,6021,6541,6542,6543,6621, 6631,6561)		
※ On Flow Rate Mode, Flow Rate (m^3/h、m^3/min) data is also shown for Models 6541, 6542 6543.		
"No.", "V(m/s)", "T(℃)" CRLF " 1", XX.XX, XXX.X CRLF " 2", XX.XX, XXX.X CRLF . . . " N", XX.XX, XXX.X CRLF	"No.", "V(m/s)", "T(℃)" " 1", 10.21 , 25.6 " 2", 15.31 , 25.5 " 3", 12.68 , 26.1 " 4", 14,10 , 26.0 " 5", 15,04 , 25.8	1st data: V(m/s), T(℃) 2nd data: V(m/s), T(℃) . . . Nth data: V(m/s), T(℃)
VTH (MODEL6521,6511,6531,6533)		
※ On Flow Rate Mode, Flow Rate (m^3/h、m^3/min) data is also shown for Models 6531, 6533.		
" ", "V(m/s)", "T(℃)", "H(%RH) " CRLF "Max.", XX.XX, XXX.X, XXX.X CRLF "Min.", XX.XX, XXX.X, XXX.X CRLF "Avg.", XX.XX, XXX.X, XXX.X CRLF "SD.", XX.XXX, XXX.XX, XXX.XX CRLF	"No.", "V(m/s)", "T(℃)", "H(%RH)" " 1", 10.21, 25.6, 65,7 " 2", 15.31, 25.5, 65.6 " 3", 12.68, 26.1, 66.0 " 4", 14,10, 26.0, 66.2 " 5", 15,04, 25.8, 66.1	1 st data: V(m/s), T(℃), H(%RH) 2 nd data: V(m/s), T(℃), H(%RH) . . . N th data: V(m/s), T(℃), H(%RH)
※1SP (6531,6533,6542,6541,6543, 6551, 6552, 6631,6553,6554,6561)		
"No.", " SP(kPa) " CRLF " 1", XX.XX CRLF " 2", XX.XX CRLF . . . " N", XX.XX CRLF	"No.", "SP(kPa)" " 1", 0.10 " 2", -0.05 " 3", -0.12 " 4", 0.03 " 5", 0.15	1 st data: SP(kPa) 2 nd data: SP(kPa) . . . N th data: SP(kPa)

※1: Model6531, 6533, 6541, 6542, 6543, 6551, 6552,6553,6554,6561: The pressure measurement function is an option.

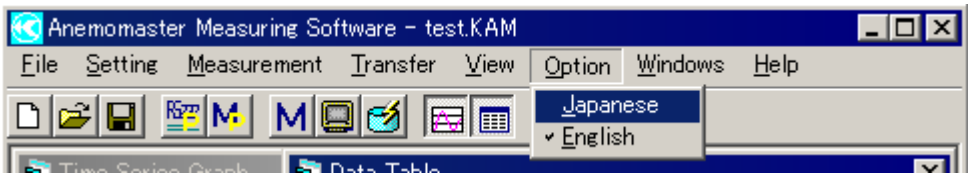
MODEL 6113, ※2 6114, 6115	
"No.", "Measurement time", "Mode", "V(m/s)", "T(℃)", "P(kPa)" CRLF " 1",#XXXX/XX/XX XX: XX: XX#, XX, .XX.XX, XX.X, XX.X.X CRLF " 2", ,#XXXX/XX/XX XX: XX: XX#, XX, .XX.XX, XX.X, XX.X.X CRLF . . . " N", ,#XXXX/XX/XX XX: XX: XX#, XX, .XX.XX, XX.X, XX.XX CRLF	1st data: Measurement date(Year/Month/Day),Velocity(m/s),Temperature(℃),Pressure(kPa) 2nd st data: Measurement date(Year/Month/Day),Velocity(m/s),Temperature(℃),Pressure(kPa) . . . N times data: Measurement date(Year/Month/Day),Velocity(m/s),Temperature(℃),Pressure(kPa)

※2: Model6113: The pressure measurement is an option.

14. Other functions

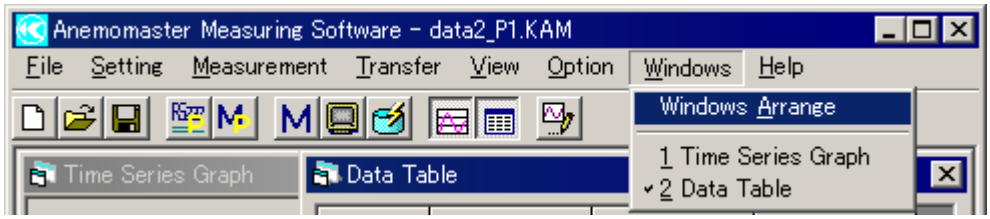
14.1 Switching Languages

You can choose and select between English and Japanese by selecting from [Option] on Menu Bar.



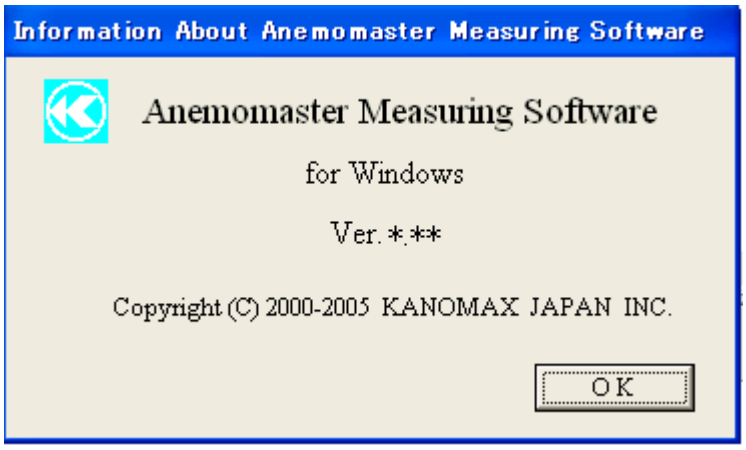
14.2 Windows Arrange

Select [Windows] – [Windows Arrange] to arrange Time Series Graph window and Data table window.



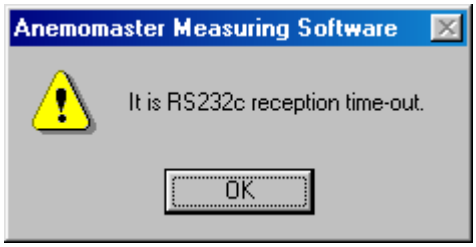
14.3 About (Software version)

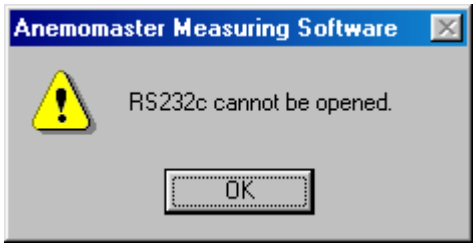
Select [Help] – [About] to view the Software version information dialog box (shown below).



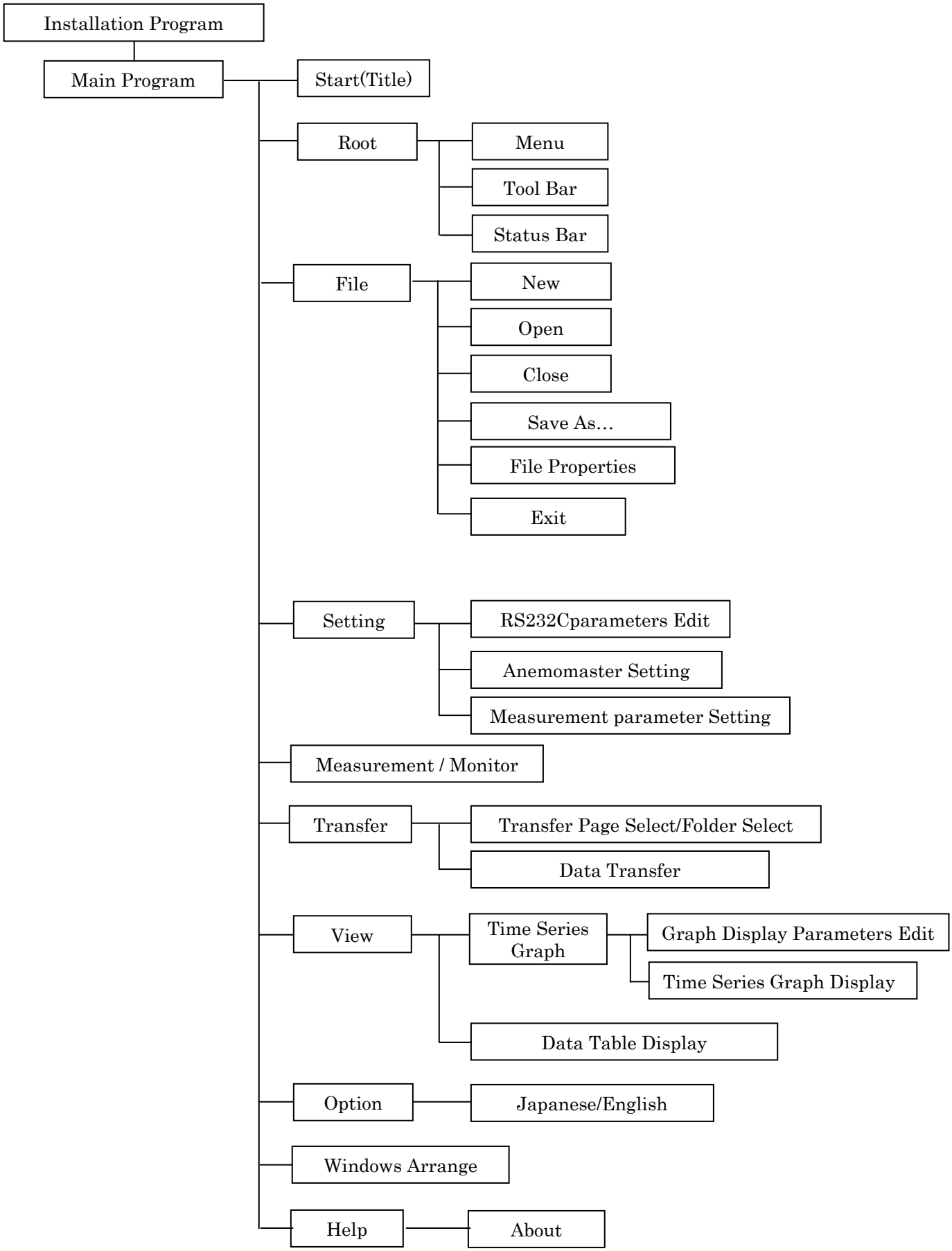
15. Error Messages

The following error messages appear if the connection between Anemomaster and PC is not established. Turn off Anemomaster, make sure of the cable connection, confirm Baud Rate on both sides match, and back on the power of Anemomaster again.
Sometimes restarting the Software may be the solution.





16. Appendix ---- Software block diagram



U.S.A. & Europe

KANOMAX USA, INC.
PO Box 372, 219 US Hwy 206, Andover, NJ 07821 U.S.A.
TEL: (800)-247-8887 / (973)-786-6386 **FAX:** (973)-786-7586
URL: http://www.kanomax-usa.com/
E-mail: info@kanomax-usa.com

Japan & Asia

KANOMAX JAPAN, INC.
2-1 Shimizu Suita City, Osaka 565-0805, Japan
TEL: 81-6-6877-0183 **FAX:** 81-6-6877-5570
URL: http://www.kanomax.co.jp/
E-mail: sales@kanomax.co.jp

China

Shenyang Kano Scientific Instrument Co., Ltd
No. 12, 4 Jia Wencui Road Heping District
Shenyang City PRC
TEL: 86-24-23845309 **FAX:** 86-24-23898417
URL: http://www.kanomax.com.cn/
E-mail: sales@kanomax.com.cn