Multi-Channel ANEMOMASTER
for Windows

Instruction Manual

KANOMAX JAPAN INC.

Contents

Caution

1．Copyrights of this software are property of Kanomax Japan Inc.

2．Partly or wholly duplicating and using this software and user manual without permission is not allowed.

3．Only one computer is allowed to install and use per a set of this software you purchased.

4．Please understand that an influence on your computer after managing this software or using user manual is

　　not our responsibility.

5．Specification of this software and contents of user manual can be revised without pre-notice.

6．Data file created by NEW multi-function measurement soft (DOS ver.) cannot be used by this software.

7．Data file created by this software cannot be used by Flow View (DOS ver. Data transaction software option).

Transcription of this Manual

This manual is using the following transcriptions.

Transcription	Explanation
CR	Carriage return (0DH)
CRLF	Carriage return (0DH) and line feed(0AH)
□	Space
XX.XX	Display a result like 21.56; X is number(0〜9)

1. Components of this System

.
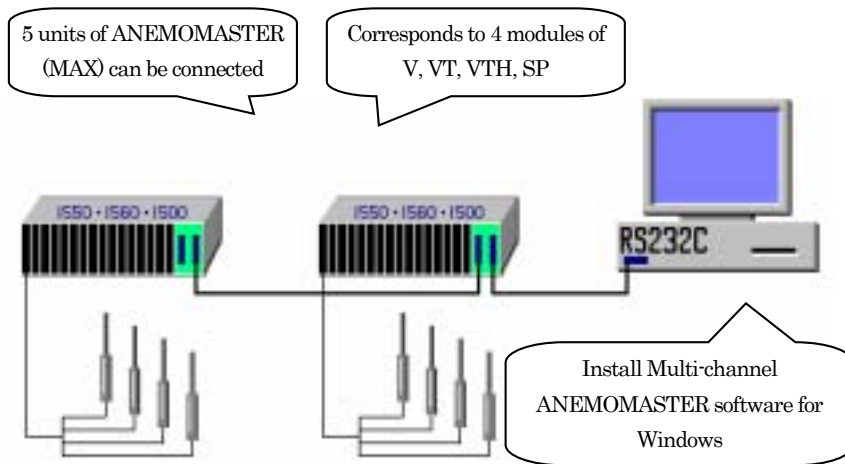
Pic1   Components of system

2. Operation Environment

    ・Computer   : Computer loaded with Pentium CPU

    ・ＯＳ   : Windows 95 or Windows 98

    ・Memory   : More than 8 MB

    ・Hard disk   : Need more than 5 MB for installation

    ・Display   :More than 640×480　pic. Corresponds to Windows 95 or Windows 98

                            (Recommendation: 800×600 pic.)

    ・Applicable models   : Multi-channel ANEMOMASTER

3. Functional Specification

ITEM		CONTENTS
Model No.		1550, 1560, 1500
Module		V, VT, VTH, SP
Numbers of ANEMOMASTER		5 units (maximum) can be connected.
Channel Nos to measure		MAX. 320CH (in case of V module) CH Nos depend on module.
Probe positioning		Optional position in 3 dimension of rectangular coordinates.
Measurement mode		Channel mode
Data mode		Average value mode, Instant mode
Interval of measurement		0.1～6553.5seconds, you can set up by 0.1 second unit
Repetition time		65535 times MAX.
RS232C	Port	ＣＯＭ１、ＣＯＭ２、ＣＯＭ３、ＣＯＭ４
	Baud rate	300, 600, 1200, 2400, 4800, 9600, 19200 bps
	Delimiter	ＣＲＬＦ, CR
	Length of data	8 bit
	Parity	None
	Stop bit	1 bit
Statistical calculating function		・calculate maximum, minimum, average value and standard deviation from data of each probe
Display	Parameter display	Display of module set up, probe set up, RS232C parameter, measurement parameter
	Time serial graph	・ Data for one probe is displayed in one window. ・MAX.320 of time series graph windows can be opened simultaneously. ・Select probe by table. ・Vertical :V,T,H,P (by probe) , scale can be set up optionally. ・Horizontal : times ・Switch scroll and pages ・Display of statistic data
	Data table	・Display of all channel data value of one sampling simultaneously. ・Display of module, channel, probe condition, probe nos, comment, probe position, data (possible to select yes or no to display unit indication). ※ Possible to select indication items other than data.
Print	Time series graph	・ Print out graph in active "time series graph window".
	Data table	・ Print out work sheet of data table.
User back up function		・Version information ・Tool hint ・Status indication ・Indication of file information and comment input

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4. Outline of Software

4.1 Components of Software

1) Components of Software

    This software consists of following files.

Items	File name	Comment
Set up program	Setup.exe	Program to set up "Multi-channel ANEMOMASTER software for Windows". Set up program checks PC environment and install needed files automatically.
Main part of soft ware	MAVIEW.exe	Main part of "Multi-channel ANEMOMASTER software for Windows" (executable file).
	SetAmA.bmp SetAmB.bmp	Bit Map picture data of ANEMOMASTER .
	*.OCX	ActiveX control
	*.DLL	Dynamic link library
Data file	###.KMA ###_P.TXT ###_R.TXT ###_S.TXT	### : input by user

2) Data File List

| Basic data file	・File name：###.KAM ・System ：Binary system ・Contents ：File info, system parameter, RS232C parameter, Measure parameter, 　　　　　　　　Measured time series data, Statistic calculation result ＊This program does data save, handle data, indication, on the basis of this data file.
Parameter file	・File name：###_P.TXT ・System ：Text system 　Contents ：System parameter, RS232C parameter, Measured parameter * Formed with basic data file. * Possible use by table calculation soft in market (ex: Excel).
Present data file	・File name:###._R.TXT ・System：Text system ・Contents：Measured time series data (present data) ＊ Formed with basic data file. ＊ Possible use by table calculation soft in market (ex: Excel).
Statistic data file	File name：###_S.TXT 　System ：Text system 　Contents：statistics calculation result data * Formed with basic data file. * Possible use by table calculation soft in market (ex: Excel).
Condition information　file	・File name：###.KMI ・System ：Binary system ・Contents ：File comment, time series graph indication parameter, install location of ・　　　　　ANEMOMASTER on screen, size and location of each window when they ・　　　　　are opened or finished.
Revised　　result data file	Execute revise calculation to present data by revise software (option), results will be stored in files below. This software can correspond to those files and indicate executed data. 1) ###.CMA 　　：Format is the same with ###.KMA 2) ###_PC.TXT 　：Format is the same with ###_P.TXT 3) ###_RC.TXT 　:Format is the same with ###_R.TXT 4) ###_SC.TXT 　：Format is the same with ###_S.TXT

: input by user

4.2 Set up and Delete of Multi-channel ANEMOMASTER Software

1) Set up (install) of Multi-channel ANEMOMASTER

When you execute "Setup.exe" , set up program will check PC environment and install needed
files automatically. Default directory of install destination is " C:¥Program – File¥MAVIEW " .
If you want to change destination, click " change directory" button and change directory which is
destination of install before start setting up.
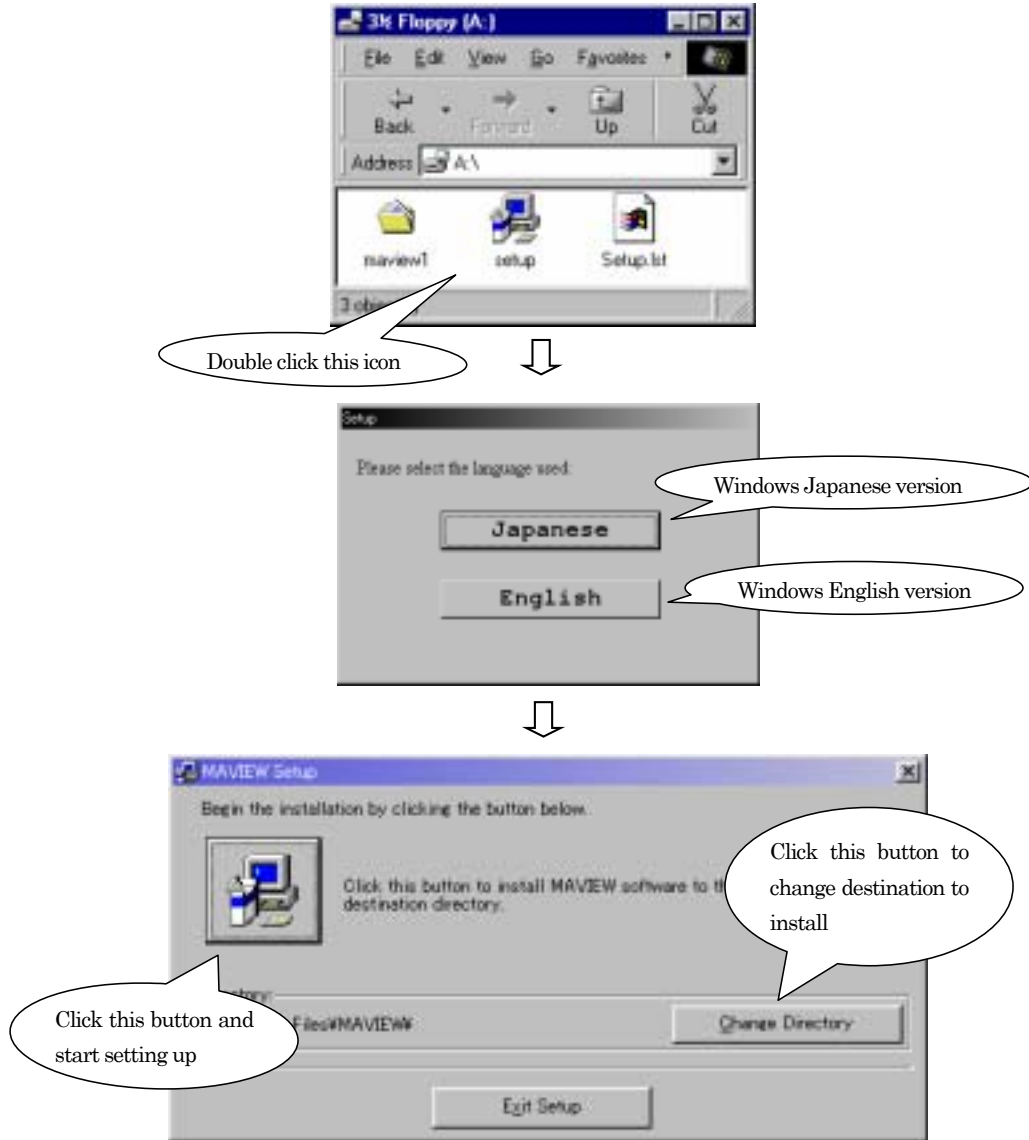
Pic.2　Set up of multi-channel ANEMOMASTER

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You can delete multi-channel ANEMOMASTER soft by " Add/Remove Programs" of "Control Panel".
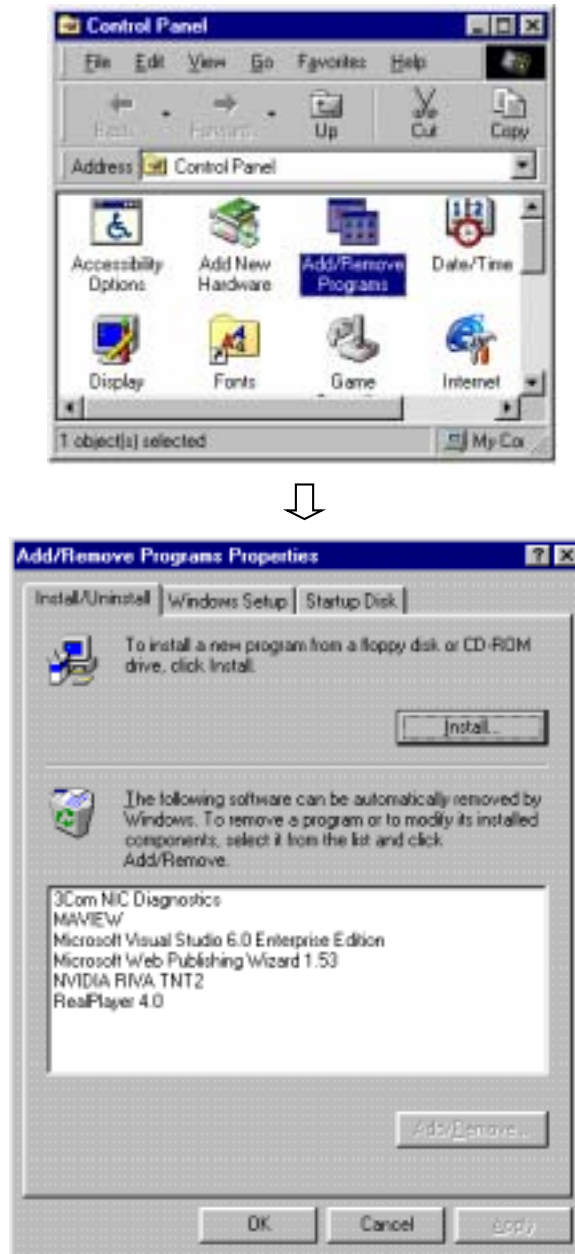
Pic.3   Delete of multi-channel ANEMOMASTER

4.3 Displays

This program adopted Multi-document interface (MDI). This program opens basic data file (*.KMA) and indicate set up data and measurement data which are stored in files.

More than two basic data files can not be opened simultaneously.

Structure of display is as follows. (Figures in parentheses shows numbers of windows which can be indicated simultaneously.)

Index screen [Pic. 4]

Windows

   ├──── Module set up window (1) [Pic. 6, 17]
   ├──── Probe set up window (1) [Pic. 7, 18]
   ├──── Module set up indication window (1)
   ├──── Probe set up indication window　(1)
   ├──── RS232C parameter indication window (1)
   ├──── Measurement parameter indication window (1)
   ├──── Time series graph indication window　(1〜320) [Pic. 23]
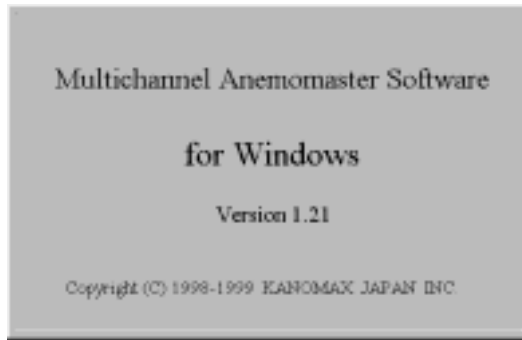   └──── Data table indication window (1) [Pic. 25]

Dialogue box

   ├──── RS232C set up dialogue box　[Pic. 9, 19]
   ├──── Measurement parameter set up dialogue box [Pic. 10, 20]
   ├──── Time series graph indication parameter set up dialogue box [Pic. 21]
   ├──── Time series graph : select probe to indicate dialogue box [Pic. 22]
   ├──── Data table indication parameter set up dialogue box [Pic. 24]
   ├──── Version information dialogue box [Pic. 27]
   ├──── File information dialogue box [Pic. 29]
   └──── Message dialogue box [Pic. 30, 31]

5. Operation Order

① Start up program

Start up operation
(Exe.file : MAVIEW.EXE)

⬇

Multichannel Anemomaster Software

for Windows

Version 1.21

Copyright (C) 1998-1999 KANOMAX JAPAN INC.
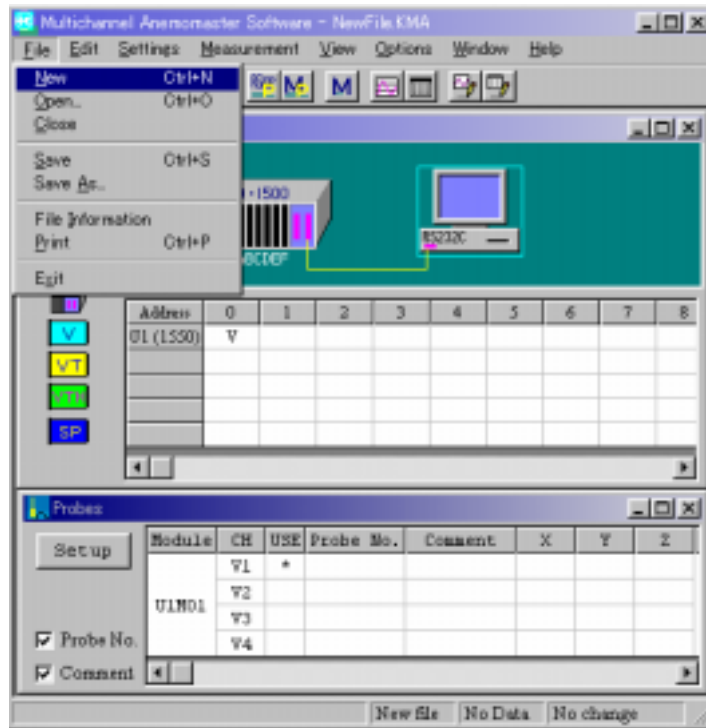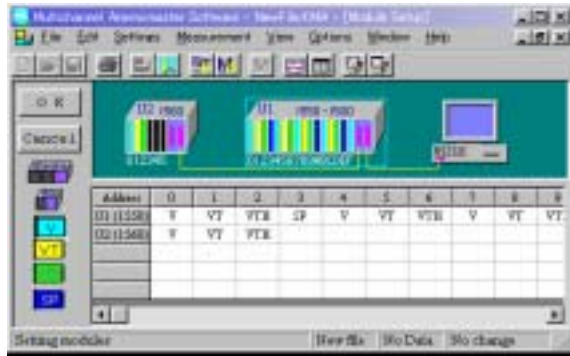
Pic. 4   Index screen

⬇

② Initial screen

→ New draw up of data file

Pic. 5   File menu : New

③ Module set up

Pic. 6   Module set up screen

④ Probe set up
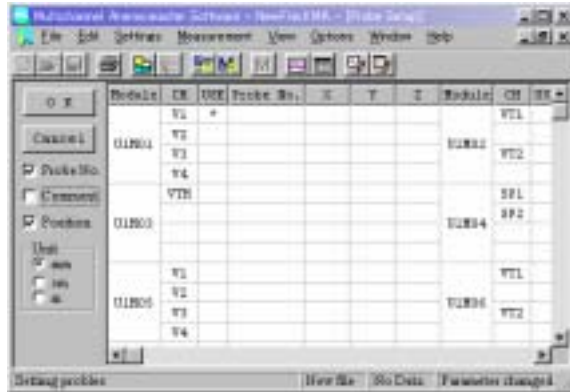
Pic. 7   Probe set up screen

⑤ Open data indication windows

Pic. 8   Data indication screen

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⑥ Set up RS232C

Pic. 9   RS232C set up dialogue box

⬇

⑦ Measurement parameter set up

Pic. 10   Measurement menu ⬇

⑧ Start measuring
*Click start measurement button of
measurement parameter set up dialogue box
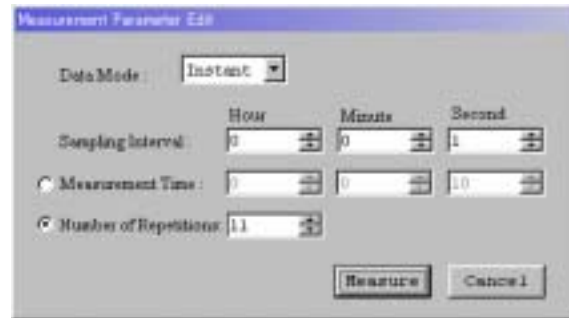
Pic. 11   Measurement parameter set up dialogue box

⬇

⑨ Take in data
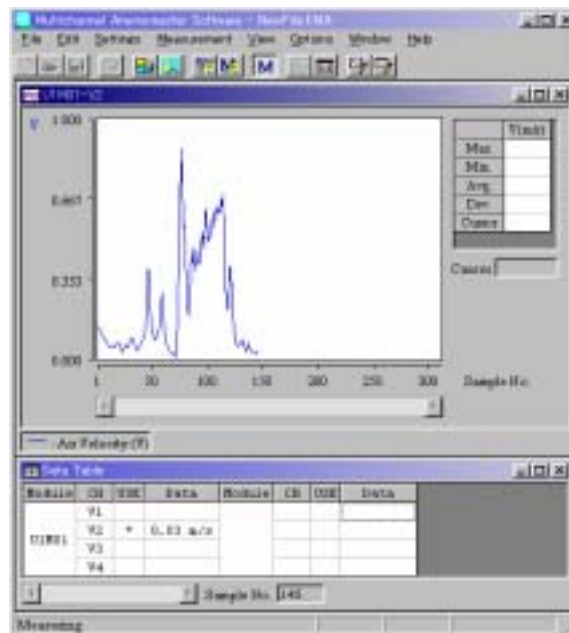
Pic. 12   Time series graph and table indication (during

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measurement)

⑩ Data display after finished data take-in

※ Possible to indicate previous measurement
   data again.
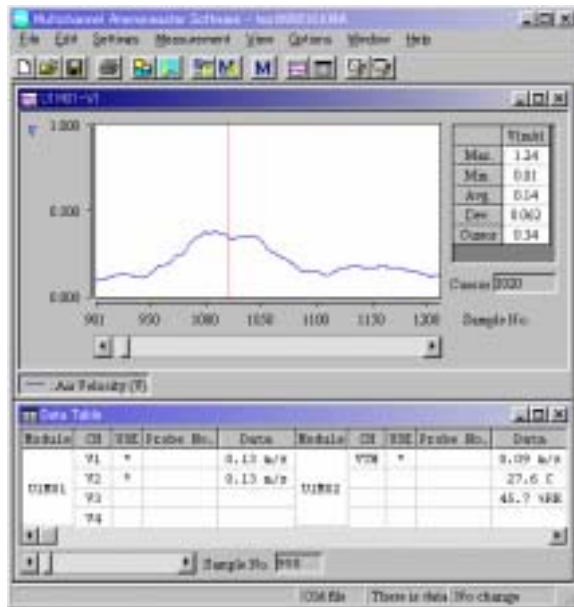
Pic. 13   Data display after finished data take-in

⑪ Data storage

Pic 14   File menu

Pic.   15 Name and save file

⑫ Finish program : Select "Close" of file menu and finish the program.

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6. Operation Explanation

6. 1 Structure of Display
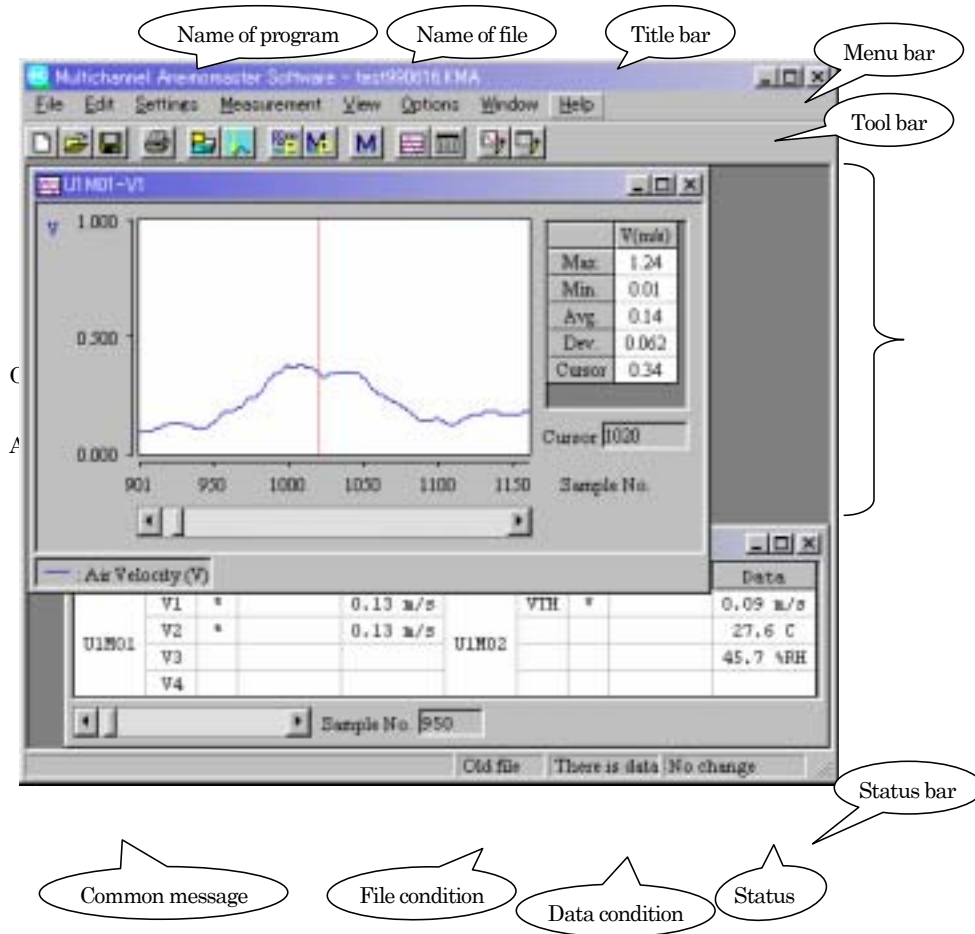
Pic.   16 Structure of display

6.2 Module Set up
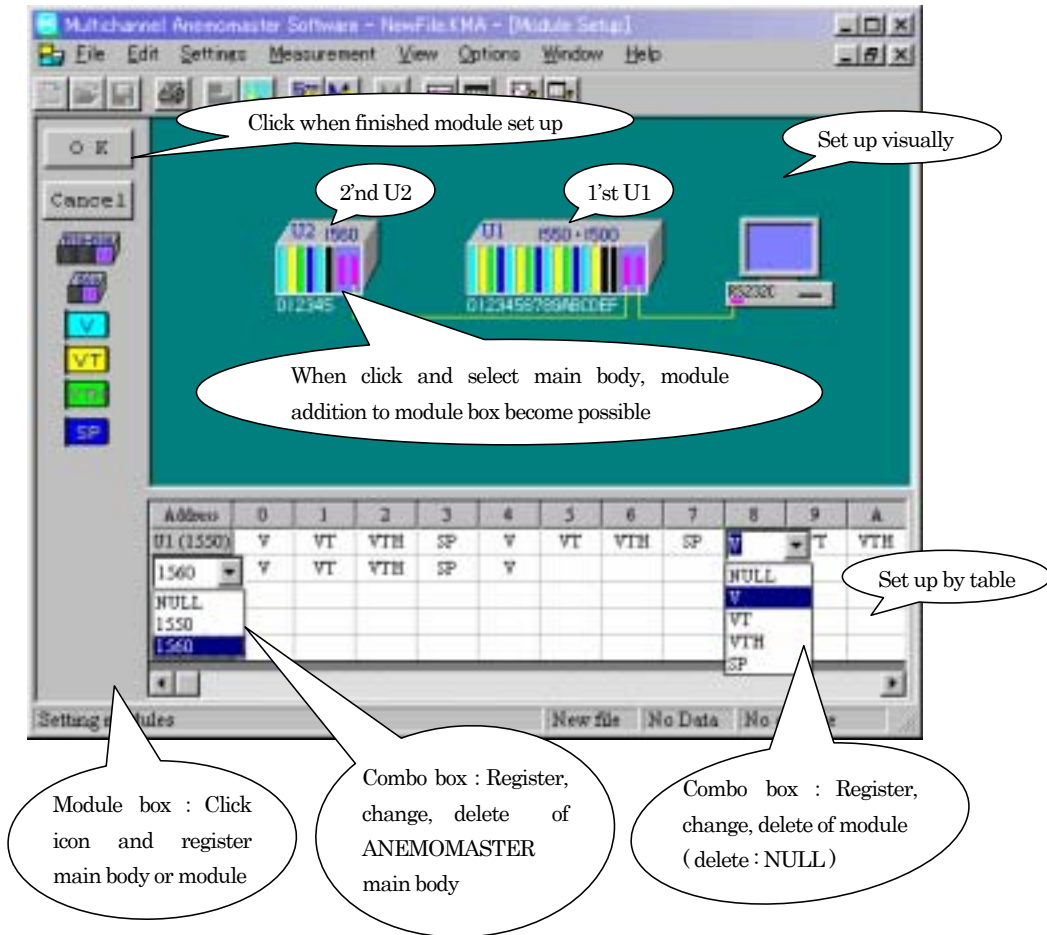
Pic. 17   Module set up window

You can add module and main part by clicking module icon or main part of ANEMOMASTER in module box.

You can move main part of ANEMOMASTER to optional position in set up area by mouse dragging.

● To delete register of module or main part of ANEMOMASTER,   select NULL from combo box.

Set up items

Model No. of ANEMOMASTER	1550, 1560, 1500
Module type	NULL, V, VT, VTH, SP
Numbers of ANEMOMASTER main body	Maximum 5 units

* NULL : No module attached

6.3 Probe Set up
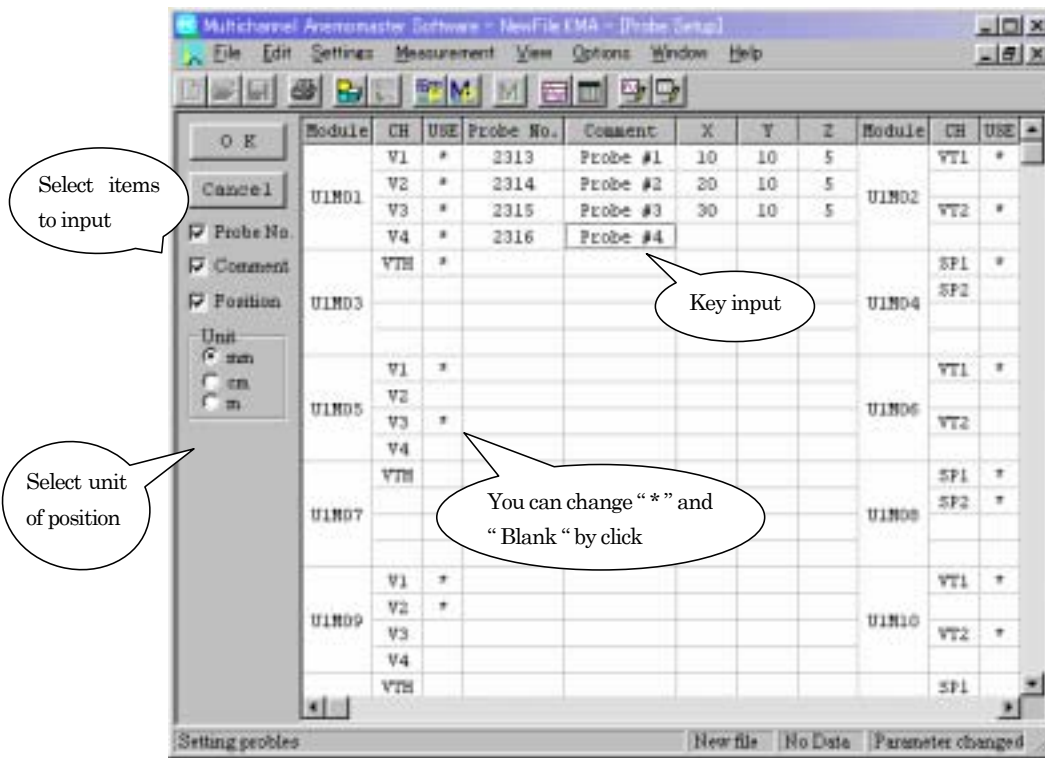
Pic. 18   Probe set up window

- Items to input
  Connect condition (USE)： ○：Connect, ×：Disconnect （change by click or <Enter> key）
  Probe No.   ：Value or Alphabet of 4 digits（Key input）
  Probe comment   ：Characters of 10 digits（Key input）
  Probe position   ：Set up by key   Input format is as follows
                     Unit of mm ：XXXX
                     Unit of cm   ：XXXX or XXX.X
                     Unit of m   ：XXXX or XXX.X or XX.XX

- Select items to input
  You can select items to input such as " Probe No"   " Probe comment"   "Probe position"   by check box.

- Select units of position
  You can select units of position from " mm, cm, m " by option button.

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6.4　RS232C Set up

Pic. 19　RS232C set up dialogue box

Select contents below from combo box.

Correspondence port	COM1, COM2, COM3, COM4
Baud rate	300, 600, 1200, 2400, 4800, 9600, 19200 bps
Delimiter	CR, CRLF

* When you set up correspondence condition, confirm if it corresponds to ANEMOMASTER main body.

6.5 Measurement Parameter Set up

Possible to select measurement times or repeat time

Pic. 20   Measurement parameter set up dialogue box

Set up contents below.

Measurement mode	Fixed to channel mode
Data mode	Possible to select average mode (Average) or Instant mode (Instant)
Interval of measurement time	0.1～6553.5 seconds, possible to set by every 0.1 second
Repeat times	Maximum 65535 times

6.6 Time Series Graph

1) Time series graph indication parameter set up
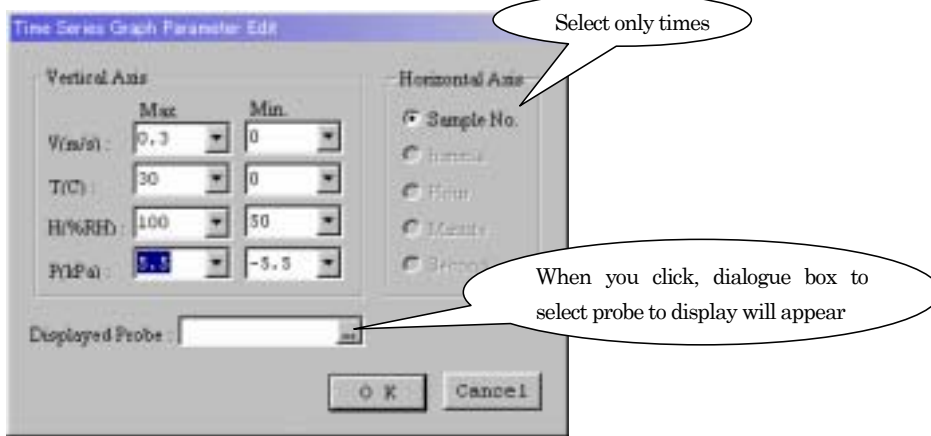
Pic. 21   Time series graph indication parameter set up dialogue box

Set up vertical and horizontal line of time series graph, and select probe to display.

Air velocity : 0～90m/s   Temperature : -50～600℃

Humidity : 0～100%RH   Pressure   : -6～6kPa

2) Select probe to display
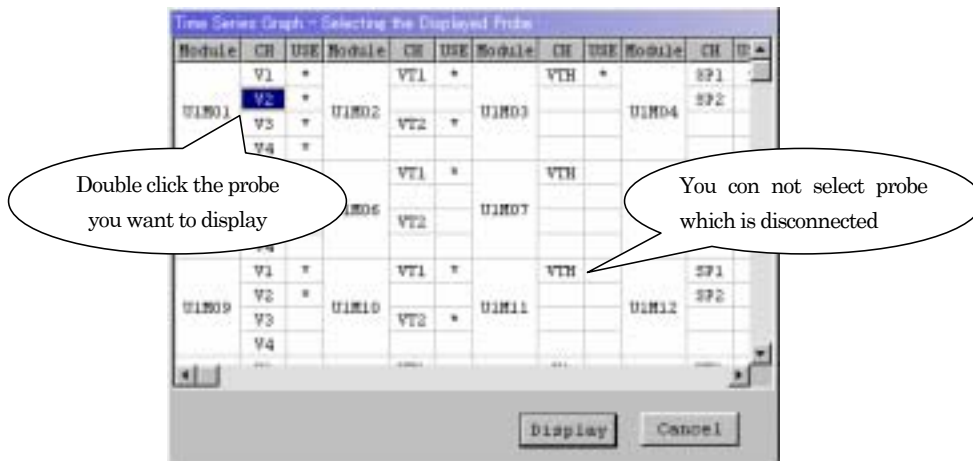
Pic. 22   Time series graph – select probe to display dialogue box

You can select only one probe to display time series graph. To display time series graph on probes in plural,
Repeat "select probe to display" and open graph indication windows in plural.

3) Time series graph indication window
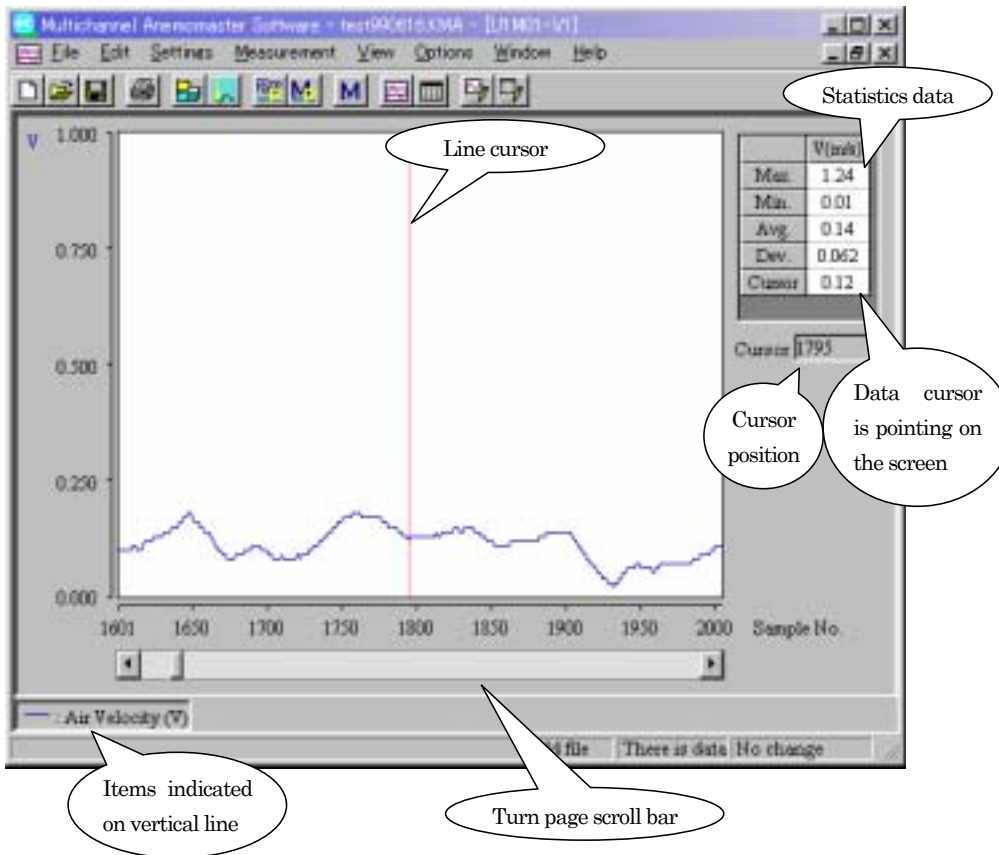
Pic. 23 Time series graph indication window

6.7 Data Table Display

1) Set up data table indication parameter
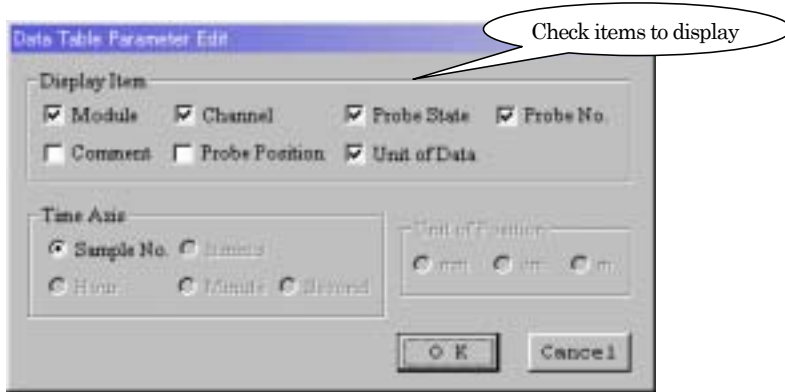
Pic. 24 Data table indication parameter set up dialogue box

2) Data table indication window
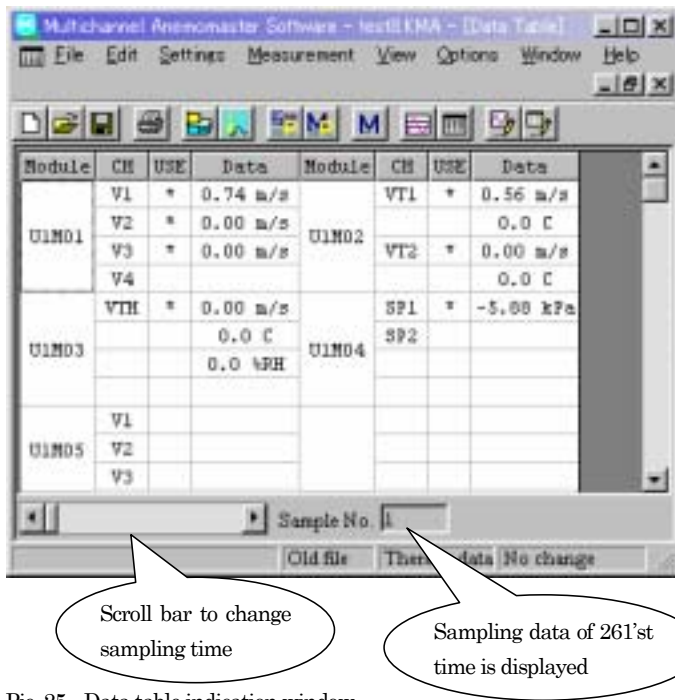
Pic. 25 Data table indication window

6.8   Data Display Windows in Plural
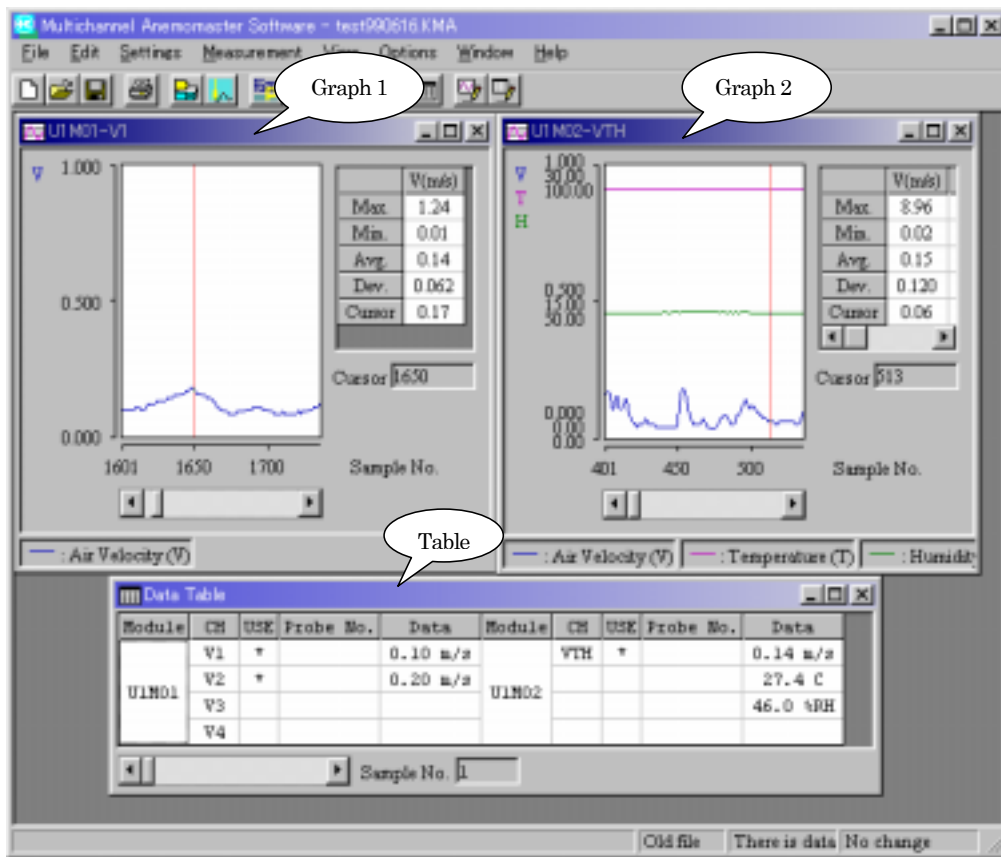
Pic. 26   Data display windows in plural

You can display graphs and tables in plural on screen by adjusting each display size of time series graph and data table.

6.9 Print Out

This program is possible to print out time series data graph and data table.

Orders of print out:

a.   Click and active window of time series graph (or data table) you want to print out.

b.   Select "Print out" item from "File" menu (or click print out icon of tool bar).

6.10 User Back up Function

1) Version information

Pic. 27   Version information dialogue box

2) Tool hint

Pic. 28   Tool hint

When you put mouse pointer on control, tool hint will appear.

3) File information

Pic. 29   File information dialogue box

7.　Message Dialogue box

7.1　Message Dialogue box

"Message dialogue box will be displayed to confirm or indicate error message while the program is run.
This program has two kinds of "Message" dialogue boxes as below.

1) "Caution" message dialogue box

Pic. 30　"Caution message" dialogue box

2) "Question" dialogue box

Pic. 31　"Question" dialogue box

7.2 Message List

"Message" dialogue box consists from "Title" , "Message" and "Command button" as shown in Pic. 30.

Following is message list appears while this program is run.

1) "Caution" message list

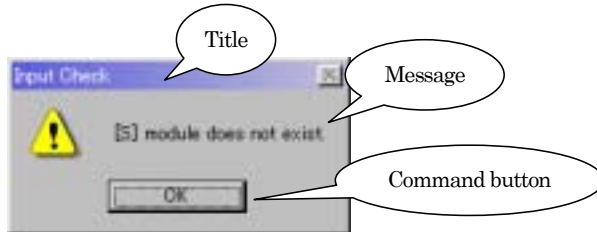| Name of dialogue	Message	Title	Command button	Cause
Input confirmation	Value is not correct.	Check input value	3	Input value is out of set range or letters were input.
	[###] module is missing. (### : Name of module)	Input module type		Input name of module is not correct.
	Settings of measurement interval is 0.1~6553.5 sec.	Set measurement parameter		Input parameter is not correct.
	MAX of measurement time is XXXsec.			
Setting confirmation	There is no set probe.	Multi-channel ANEMOMASTER Soft ware	3	Confirmation will appear when probe was not set before data take in starts.
RS232C Error Message	RS232C can not be opened.	Multi-channel air Velocity meter Soft ware	3	Settings of RS232C is not correct.
	Error occurred when close RS232C.			
	RS232C receive time-out.			RS232C setting is not correct. Timer of ANEMOMASTER : 5sec Timer when data take in :10sec
	There are omissions in take in data.			Followings happened . 1) Take in data delimiter does not corresponds to settings. 2) Sampling repetition time does not corresponds to settings.
	Data error occurred.			Other data error occurred.
	Numbers of ANEMOMASTER connected is not corresponds to set value.			Numbers of ANEMOMASTER connected does not corresponds to settings.
	Data buffer over occurred.			Data buffer over for correspondence of PC occurred.
	ANEMOMASTER memory over occurred.			Memory over of main body of ANEMOMASTER occurred.
	RS232C Correspondence error occurred.			Other correspondence error occurred.
Print out error message	Printer error.	Multi-channel ANEMOMASTER soft ware	3	Printer error will occur while printing if printer is not connected or does not correspond to Windows 95.

- Command button ： 3 ［ok］

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2) Question message list

Name	Message	Title	Command button	Cause
Input confirmation	Value is not correct Input again?	Input check	2	Input value is out of set range or letters were input.
Confirm to stop measuring	Stop data take in?	Multi-channel ANEMOMASTER soft ware	2	Displayed when click measurement stop button.
Confirm to change parameter	Change parameter?	Multi-channel ANEMOMASTER soft ware	1	Displayed when finish setting of module or probe.
Confirm to save file	Parameter is changed. Save it?			Displayed when you try to make new, open, close or finish after parameter was changed.
	There is data in memory. Save it?			When take in data was not saved and followings are selected. 1) Make new, open, close, finish. 2)Set up or right before set up.
Confirm to save over other file	File of the same name exists Save over it?	Save [###] (### : File name)		Displayed when you save file and file of the same name already exist.

* Command button　　　：1："Yes" ," No", "Cancel" three buttons

　　　　　　　　　　　：2："Yes" , "No"　two buttons

　　　　　　　　　　　：3： "OK"　one button

8. Data Link to Calculation Table Soft

This program create data file which can be taken in to calculation table soft at the same time with data saving of
Measured data.

Data file which can be taken in to calculation table soft

File	Parameter file	*File name ： ###_P.TXT *System ： Text system *Contents ： System parameter, RS232C parameter, measurement parameter.
	Present data file	*File name ： ###_R.TXT *System ： Text system *Contents ： Time series data of measured time .
	Statistics data file	*File name ： ###_S.TXT *System ： Text system Contents ： Statistics calculation result data.
	Revised result data file	Do revise calculation to present data using revision soft ware, （option）and save that result to files below 1) ###_PC.TXT ：Format is the same with ###_P.TXT 2) ###_RC.TXT ：Format is the same with ###_R.TXT 3) ###_SC.TXT ：Format is the same with ###_S.TXT

： Input by user

Caution ：If you need to use calculation table soft（ex.：Excel), you have to buy it as option.

Operation order（ex.：Excel)

① Start up Excel
　 Select [File] – [Open]
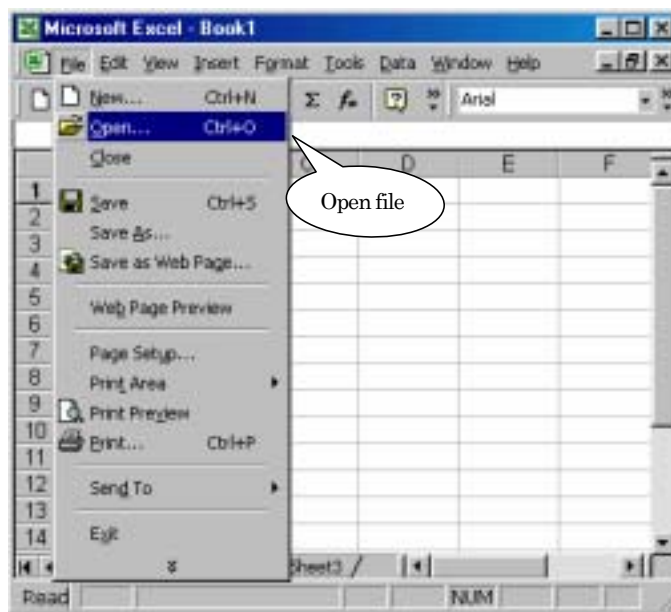
② Select [Text file]
from [Kinds of files].
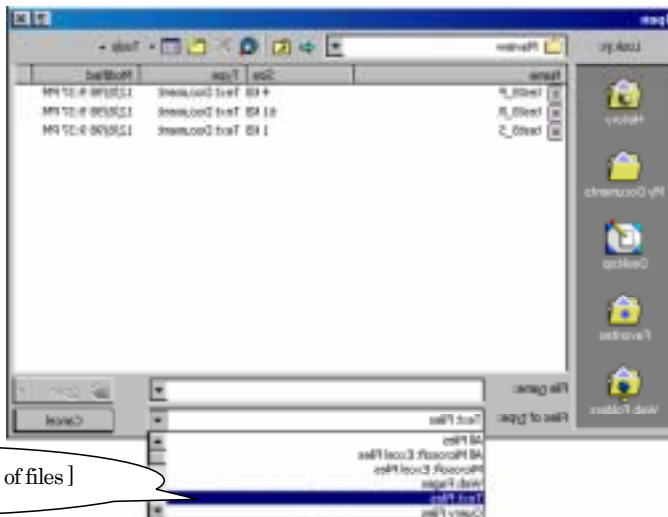
Select [Text file] from [Kinds of files]

Select items according to contents
on screen such as delimited of text file.

Select [delimited]

Click [Next]

Check comma

Check tab

Confirm delimit of data

Check text
qualifier

Click [Next]

Select "General" from data format

Text Import Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

'General' converts numeric values to numbers, date values to dates, and all remaining values to text.

Advanced...

Column data format:
- General
- Text
- Date MDY
- Do not import column (skip)

Data preview

Preview data format

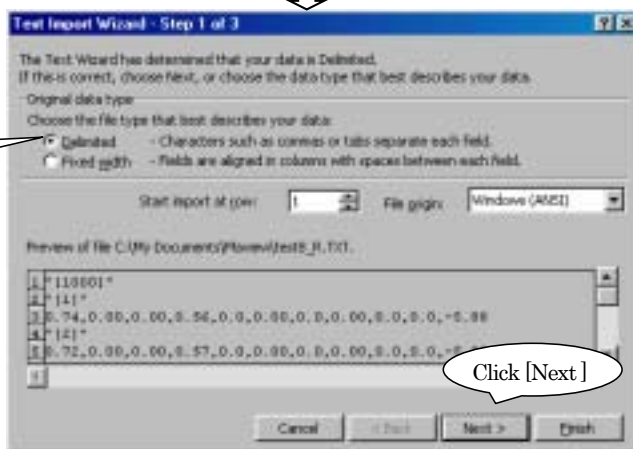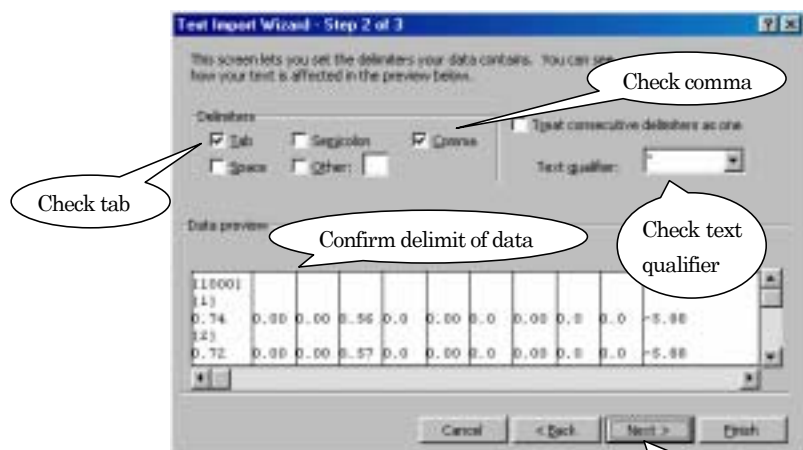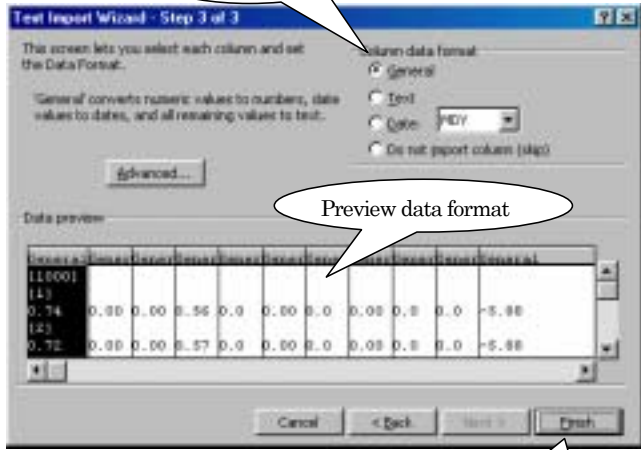| General									General
[1000]									
[1]									
0.74	0.00	0.00	0.56	0.0	0.00	0.0	0.00	0.0	0.0	-5.00
[2]									
0.72	0.00	0.00	0.57	0.0	0.00	0.0	0.00	0.0	0.0	-5.00

Cancel | < Back | Next > | Finish

Click finish

④ Text data will taken into work sheet.

Microsoft Excel - test0_R

File Edit View Insert Format Tools Data Window Help

Arial 10 B I U

A1 = [1000]

	A	B	C	D	E	F	G	H
1	[1000]							
2	[1]							
3	0.74	0	0	0.56	0	0	0	0
4	[2]							
5	0.72	0	0	0.57	0	0	0	0
6	[3]							
7	0.73	0	0	0.58	0	0	0	0
8	[4]							
9	0.66	0	0	0.48	0	0	0	0
10	[5]							
11	0.65	0	0	0.47	0	0	0	0
12	[6]							
13	0.65	0	0	0.47	0	0	0	0
14	[7]							
15	0.62	0	0	0.48	0	0	0	0

test0_R

Ready | NUM