



**KANOMAX**

# **Piezobalance Dust Monitor Software**

## **MODEL S352-10**

### **Operational Manual**

Read this manual carefully and understand the warnings described in this manual before operating the product.  
Keep this manual handy for ready reference.



**01002**

**11.10**

**No. S352-10**

Thank you for purchasing a product of Kanomax Japan, Inc.  
Please read this operation manual carefully and operate the instrument appropriately  
by following the instructions given in this manual.

- This manual is stored on the software CD-ROM as a PDF file, which can be read by “Adobe Acrobat 4.x” and higher.
- Windows 9x/NT/2000/XP/7 is a registered trademark of Microsoft Corporation.
- Any unauthorized duplication of the product, in whole or in part, without written consent from Kanomax Japan Inc. is strictly prohibited.
- Contents of the Operation Manual are subject to change without notice.

# Important Safety Information

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Types and definitions of warning signs used in this instruction manual are shown below.

**[Danger]**

**To prevent serious injury or death.**

Warnings in this classification indicate danger that may result in serious injury or death if not observed.

**<Caution>**

**To prevent damage to the product.**

Warnings in this classification indicate a risk of damage to the product or possible performance failures that affect the product warranty if not observed.

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# 1. Overview

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## 1.1 System Overview

This software is provided for the Piezobalance Dust Monitor (Model 3521).

Using this software, data records of the Piezobalance Dust Monitor can be transferred to a computer.

The data is stored in the computer in a “csv” format, which can be read and processed by applications such as Microsoft Excel.

This software is operable under Windows 2000, XP and 7.

### Applicable Computer Requirements:

Model	IBM PC compatible
Communication Port	One or more COM(RS232C) ports
OS	Windows 2000 SP4, Windows XP SP1 or higher, Windows 7
Memory Capacity	128MB or more
Required HDD Capacity	50MB or more
Display	Resolution of 800*600 or higher

\* When using a RS232C-USB converter, please check the COM port number assigned to it, in Device Manager, and select this COM port in the software. For further details, please contact our service center.

## 1.2 System Settings

Settings of Piezobalance Dust Monitor.

### 1) Communication Settings

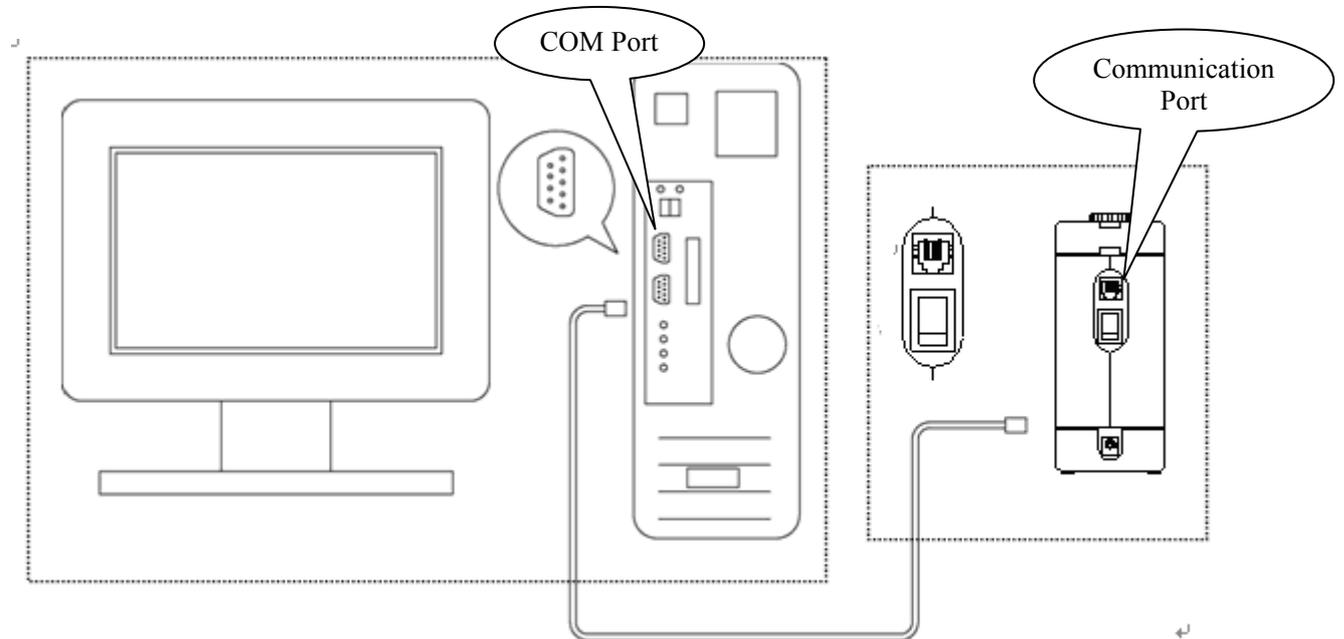
Screen of the Piezobalance Dust Monitor	Description of Operation
<div style="border: 1px solid black; padding: 5px;"> <p>MENU 1.NORMAL 2.SAMPLING TIME 3.DATA OUTPUT 4.PRINT OUTPUT 5. DATA CLEAR 6.TIME ADJUST 7.COMMUNICATION</p> </div> <p style="text-align: center;">↓</p>	<p>When high voltage is NOT being supplied, press “MENU”, and the screen shown on the left will be displayed. Select “COMMUNICATION” by using  and . Press “SET” to proceed to the communication settings screen.</p>
<div style="border: 1px solid black; padding: 5px;"> <p>COMMUNICATION 1.BAUDRATE 19200</p> <p>2.SAVE INFO</p> </div>	<p>Set the communication baud rate by using  and . To enter the settings, press “SET” at item 2.</p> <hr/> <p>The baud rate can be selected from the following by using  and .</p> <p><b>19200</b>      <b>9600</b>      <b>4800</b></p>

### Operation Precautions

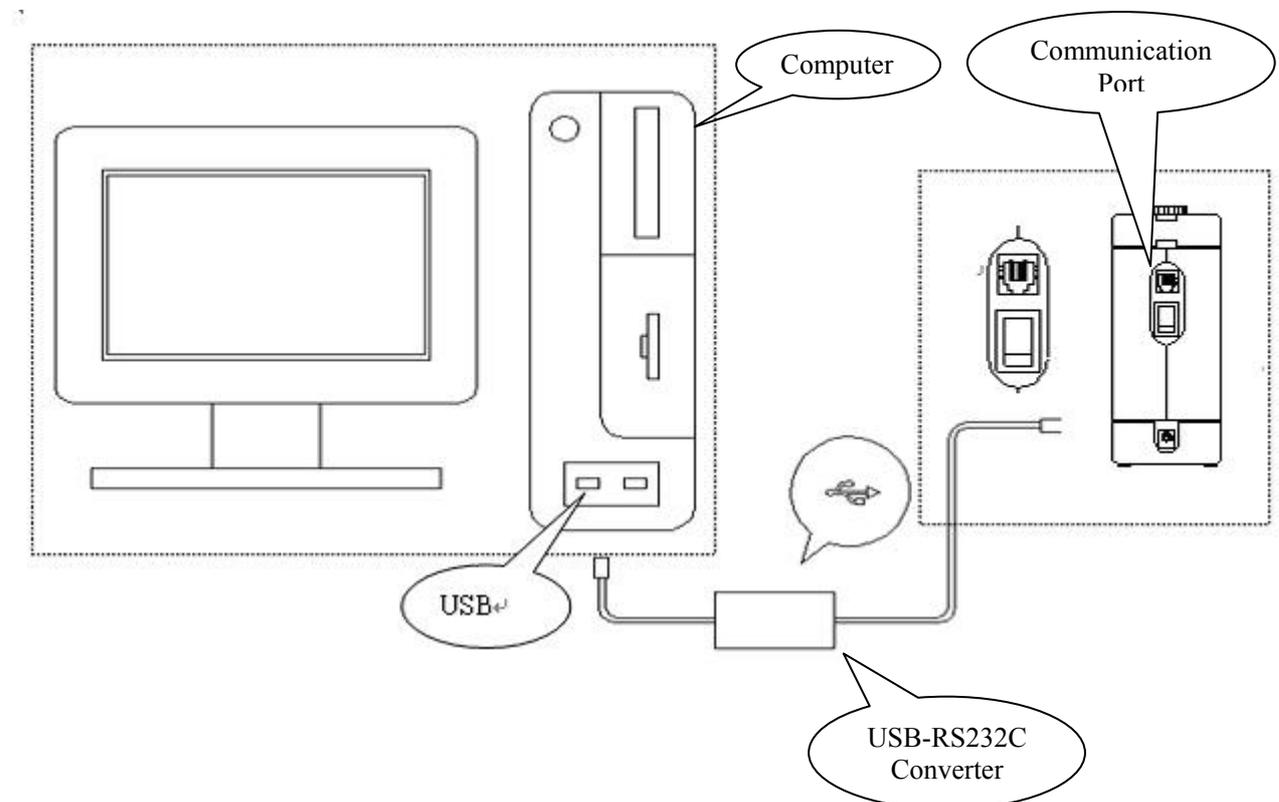
- By selecting a COM port, the software will automatically configure the baud rate settings.
- When a computer is connected to the instrument, communication is possible without using the screen of the instrument .  
In this case, the instrument screen must be set to the “MENU” screen.
- Do NOT use the software when the instrument is performing a measurement. There may be problems transferring data if communications occur while the instrument is measuring.

## 2) Connecting to a Computer

(1) Use the provided communication cable to connect the instrument to a COM port of the computer.



(2) If the computer is not equipped with a COM port, a USB-RS232C converter can be used to connect the instrument to the computer.



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## 2. Installation

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### 2.1 Software Setup

**When performing the installation, make sure to log in with an account that has administrative rights.**

- 1) Insert the installation CD-ROM in the computer.  
(\* If an old version of the software is already installed, uninstall the previous version before proceeding.)  
**Before starting setup, close any open applications.**
- 2) The window shown below is displayed automatically when the CD is inserted.  
Press "OK" to proceed.



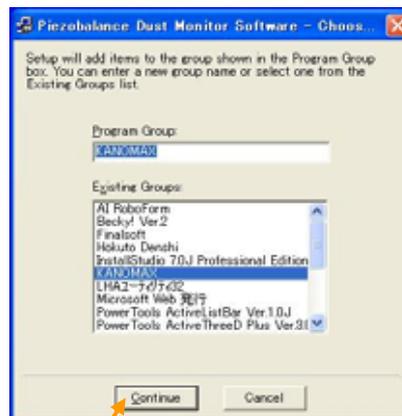
Click

- 3) Confirm or change the destination directory to save the software to, then click the installation starting icon.



Click

- 4) Select the Program Group for installing the software. By default, a program group called “Kanomax” will be created. To proceed with the default setting, click “Continue”, and the installation will start.



Click



- 5) When installation is completed properly, the following window will be displayed. Press “OK”.

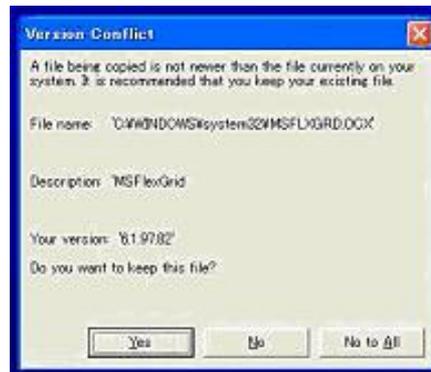


Click

## 2.2 Setup Precautions

The following window may be displayed during setup. This window indicates that one of the installation files is already installed on the computer.

If you are not experiencing any operational problems with your current system, press “YES” to keep the existing file.



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## 3. Startup and Measurement

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### 3.1 Software Startup

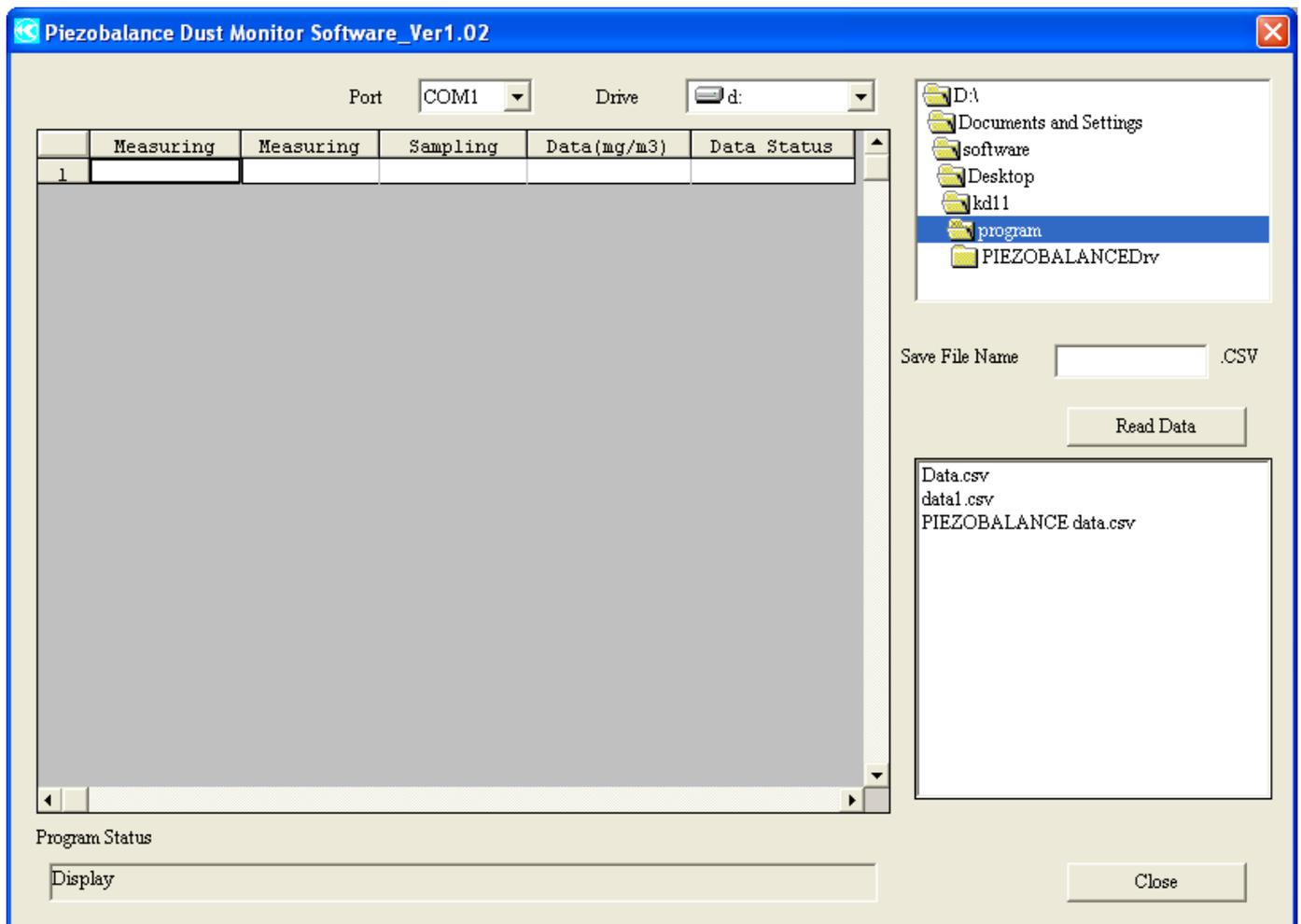
To start the Piezobalance software, select

[Start] → [(All) Programs] → [Kanomax] → [Piezobalance Dust Monitor Software] ,

or

[My computer] → [*Appropriate Drive*] → [Program Files] → [Piezobalance Dust Monitor Software] → [Piezobalance]

The following screen will be displayed when the software starts.



### 3.2 Transferring Data

Procedure for transferring data:

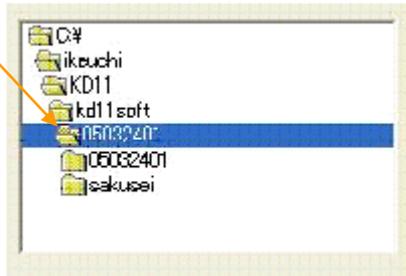
- 1) Select the appropriate communication port:(COM1 to COM8)



- 2) Select the drive name for where the data will be stored.



- 3) Select the destination folder for where the data will be stored.



- 4) Enter the file name the data will be saved under.



- 5) Click **Read Data** to transfer the data stored in the instrument to the computer.  
The data will be displayed on the screen and stored on the computer in the location you specified above.
- 6) Program status will indicate “Read Data” while the data is being transferred. The status will change to “Display” when the data transfer is complete.
- 7) Click **Close** to close the software.

The screenshot shows the Piezobalance Dust Monitor Software Ver1.02 interface. At the top, there are dropdown menus for 'Port' (set to COM1) and 'Drive' (set to d:). Below these is a table with columns: Measuring, Measuring, Sampling, Data(mg/m3), and Data Status. The table contains 22 rows of data. To the right of the table is a file explorer showing the directory structure: D:\, Documents and Settings, software, Desktop, kd11, program, and PIEZOBALANCEDrv. Below the file explorer is a 'Save File Name' field with 'data3' entered and '.CSV' as the extension. A 'Read Data' button is located below the file explorer. At the bottom right, there is a 'Close' button. At the bottom left, there is a 'Program Status' section with a 'Display' button. A large callout box at the bottom center says 'Displays Transferred Data Records'.

	Measuring	Measuring	Sampling	Data(mg/m3)	Data Status
1	12/22/2005	4:34:20 PM	0120	0.85	0
2	12/22/2005	4:42:20 PM	0120	0.84	0
3	12/22/2005	4:50:19 PM	0120	0.81	0
4	12/22/2005	4:58:19 PM	0120	0.77	0
5	12/22/2005	5:06:20 PM	0120	0.75	0
6	12/23/2005	9:29:48 AM	0040	5.10	0
7	12/23/2005	9:37:49 AM	0040	4.83	0
8	12/23/2005	9:45:49 AM	0040	4.55	0
9	12/23/2005	9:53:49 AM	0040	4.24	0
10	12/23/2005	10:01:50 AM	0040	4.05	0
11	12/23/2005	11:15:39 AM	0120	3.17	0
12	12/23/2005	11:23:39 AM	0120	3.02	0
13	12/23/2005	11:31:39 AM	0120	2.83	0
14	12/23/2005	11:39:38 AM	0120	2.66	0
15	12/23/2005	11:47:40 AM	0120	2.49	0
16	12/23/2005	1:28:39 PM	0120	1.27	0
17	12/23/2005	1:36:28 PM	0120	1.23	0
18	12/23/2005	1:44:28 PM	0120	1.20	0
19	12/23/2005	1:52:28 PM	0120	1.13	0
20	12/23/2005	2:00:28 PM	0120	1.16	0
21	12/26/2005	4:48:50 PM	0024	0.05	0
22	12/26/2005	4:50:25 PM	0024	0.07	0

When there is data stored in the selected location, the file names of any stored data are displayed in the file list section. (The file name is used when transferring the stored data.)

### 3.3 Operational Messages

1) If you try to transfer data without first specifying a unique file name the following message will be displayed:



2) If data cannot be written to the selected drive, the following message will be displayed:



3) If there is a communication failure between the computer and the instrument, the following message will be displayed:



Confirm the communications cable is properly attached and the baud rate settings are correct.

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## 4. File Description

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Viewing Stored Data (Example of a data file opened with Microsoft Excel)

The screenshot shows a Microsoft Excel spreadsheet titled "data3" with the following data:

No	Measuring Date	Measuring Time	Sampling time	Data(mg/m3)	Data Status
1	12/22/2005	4:34:20 PM	120	0.85	0
2	12/22/2005	4:42:20 PM	120	0.84	0
3	12/22/2005	4:50:19 PM	120	0.81	0
4	12/22/2005	4:58:19 PM	120	0.77	0
5	12/22/2005	5:06:20 PM	120	0.75	0
6	12/23/2005	9:29:48 AM	40	5.1	0
7	12/23/2005	9:37:49 AM	40	4.83	0
8	12/23/2005	9:45:49 AM	40	4.55	0
9	12/23/2005	9:53:49 AM	40	4.24	0
10	12/23/2005	10:01:50 AM	40	4.05	0
11	12/23/2005	11:15:39 AM	120	3.17	0
12	12/23/2005	11:23:39 AM	120	3.02	0
13	12/23/2005	11:31:39 AM	120	2.83	0
14	12/23/2005	11:39:38 AM	120	2.66	0
15	12/23/2005	11:47:40 AM	120	2.49	0
16	12/23/2005	1:28:39 PM	120	1.27	0
17	12/23/2005	1:36:28 PM	120	1.23	0
18	12/23/2005	1:44:28 PM	120	1.2	0
19	12/23/2005	1:52:28 PM	120	1.13	0
20	12/23/2005	2:00:28 PM	120	1.16	0
21	12/26/2005	4:48:50 PM	24	0.05	0
22	12/26/2005	4:50:25 PM	24	0.07	0
23	12/27/2005	8:00:41 AM	120	0.1	0

Callouts in the image identify the following columns:

- Measurement Number (Column 1)
- Measurement Date (Column 2)
- Measurement Start Time (Column 3)
- Sampling Period (Column 4)
- Measured Concentration (Column 5)

Legend for Error Status:

- 1 --- Error
- 0 --- No Error

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## **5. Troubleshooting**

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### **5.1 The data transfer is slow.**

The data is displayed after searching for the RS232C port equipped in the PC.

Since the time is dependent on factors such as the PC's processing speed, please allow several minutes for the data to be displayed.

### **5.2 Operational problems under Windows 9x systems or Windows NT.**

This software is designed to run under Windows 2000/XP/7. If you run it under Windows 9x or NT you may experience compatibility issues.

### **5.3 Communication error message is displayed.**

Confirm the communication settings and confirm that the computer and the instrument are connected with the provided communication cable. If the communication settings and cable are properly setup try closing the software and reboot your PC.

If you cannot resolve an issue by following the steps above or if a different issue occurs, please contact your local distributor or our service center for assistance.

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## 6. After-sales Service

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**This software is a standard accessory of the Piezobalance Dust Monitor 3521.**

All of our products have gone through a thorough inspection based on our quality assurance system prior to shipment. However, if a possible defect in materials or workmanship is found, please contact your local distributor, or call our service desk.

This product is warranted against defects in materials and workmanship for a period of one year from the date of original purchase. The limited warranty covers all defects encountered in normal use of the product, and does not apply in cases such as: loss or damage to the product due to abuse, mishandling, or alteration by the owner, or natural disaster.

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## 7. Contact Information

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