

# WinCT-GXA-Filter

Windows GX-AE/GX-A/GF-A  
Filter Setting Tools

## INSTRUCTION MANUAL

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- "WinCT-GXA-Filter" is intended for the transmission of data from an A&D weighing instrument to a PC.
- " WinCT-GXA-Filter " should only be installed on the hard disk or peripheral storage devices of a PC connected to an A&D weighing instrument.
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"WinCT-ParamSet" can be downloaded from the A&D website ( <https://www.aandd.jp/> ).

To setup "WinCT-GXA-Filter", please refer to the WinCT-GXA-Filter\_SetUp\_EN file in the downloaded WinCT-GXA-Filter folder.

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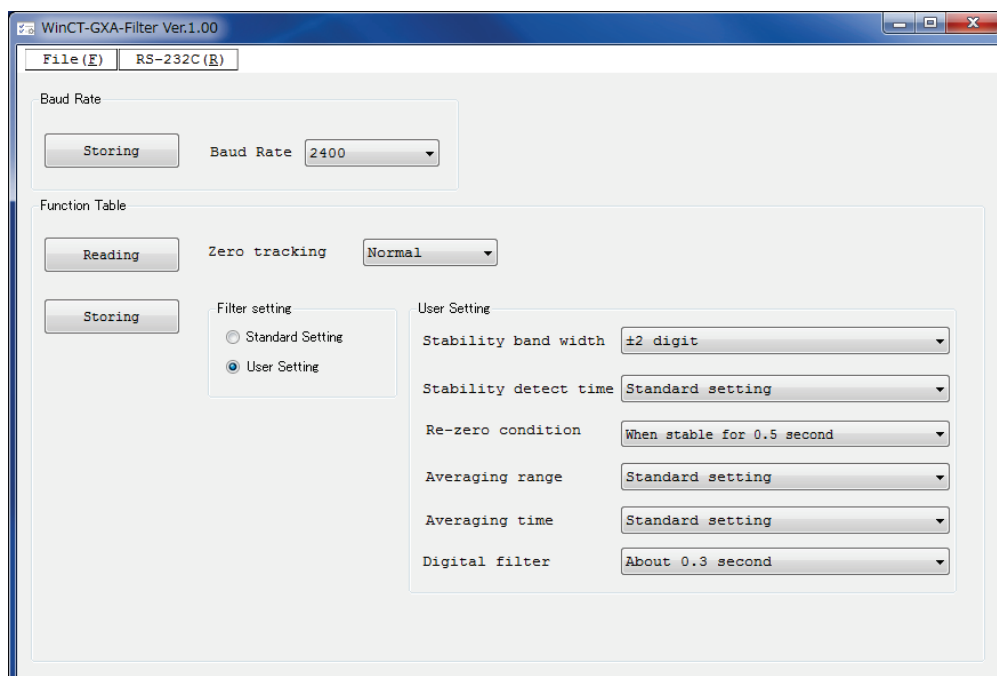
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## 1. Features

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This software “Windows Communication Tools for data transmission with the GX-AE/GX-A/GF-A Filter” (hereinafter referred to as “WinCT-GXA-Filter”) can change the A&D electronic balance GX-AE/GX-A/GF-A series filter settings on PC.

- The setting data can be read from the balance and changed all at once.
- The setting contents can be saved in CSV file format.
- The saved CSV file can be read and the setting contents can be written to the balance.
- The extended function (filter detailed setting) can be switched on and off.



### Note

- This software cannot be used unless the software version of the balance is 1.320 or later.  
For instructions on how to confirm the software version of the balance, refer to the instruction manual of the balance.
- This software cannot be used for communication with the USB interface of a balance with software version 1.320. Connect the balance to a PC with an RS-232C interface.  
(Balances with software version 1.400 or later can also be connected with the USB interface.)
- This software cannot be used when the password lock function of the balance is enabled. Also, it cannot be used to switch the function from disabled to enabled state. Use the keys on the balance to set the password lock function.

## 2. How to connect

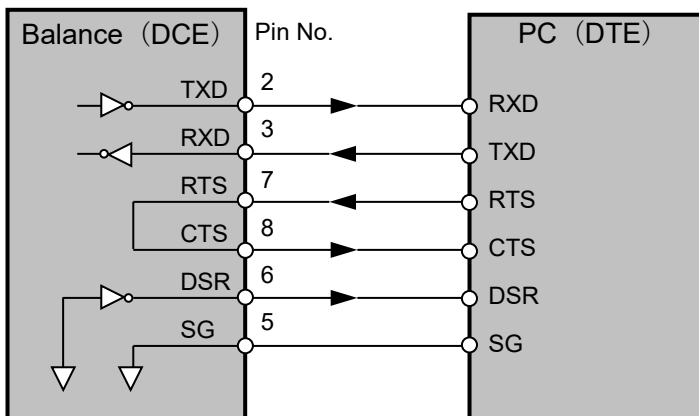
### 2-1. Connecting the weighing instrument to a PC with RS-232C.

D-Sub9 Pin arrangement

Pin No.	Signal name	Direction	Meaning, remarks
1	-	-	N.C. (same potential as SG)
2	TXD	Output	Transmitted data
3	RXD	input	Received data
4	-	-	N.C.
5	SG	-	Signal ground
6	DSR	Output	Data set ready
7	RTS	Input	Request to send
8	CTS	Output	Clear to send
9	-	Output	N.C. (12V output)

DTE signal names (except TXD and RXD).

Connection diagram (when connecting to a PC)



#### If the PC is equipped with an RS-232C port:

After checking the D-Sub 9-pin arrangement of the weighing instrument and the pin arrangement of the PC, connect with an appropriate RS-232C cable.

#### If the PC is not equipped with an RS-232C port, or if you want to use the PC's USB port:

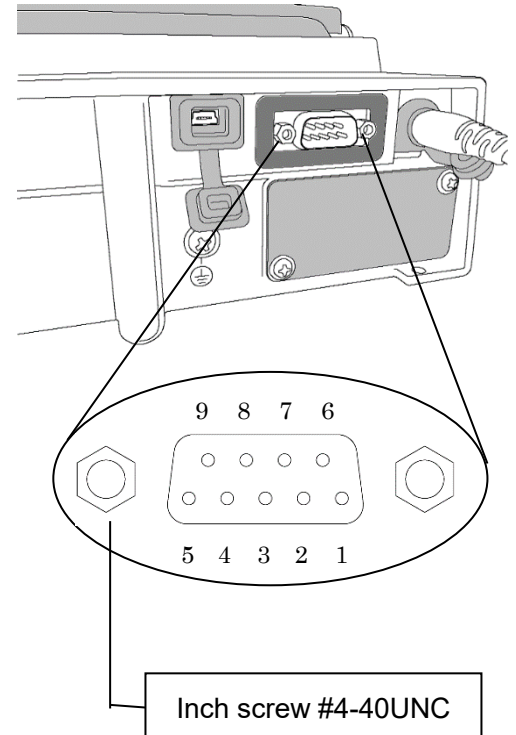
- **Required cable** AX-USB-9P, USB converter and cable set  
(The USB driver must be installed.)

- **Installing the driver**

1. Connect the USB converter to the PC's USB port.
2. Install the driver on the PC.

For installation, please refer to the instruction manual of the USB converter.

3. Connect the USB converter to the measuring device with the included RS-232C cable.  
The COM port name will be "USB Serial Port".



## 2-2. Connecting the weighing instrument to a PC with USB. (Software version 1.400 or later.)

- Required cable...USB cable supplied with the balance (The driver installation is required.)
- Preparation...Change the balance's internal settings to 'Virtual COM' mode.
  1. Set the balance to the  $0.000$  weighing mode.
  2. Press and hold the **SAMPLE** key (approx. 2sec.) to display the **bRSFnC** key.
  3. Press the **SAMPLE** key several times and press the **PRINT** key with the **USB** key.
  4. The **UFnC** is displayed. Press the **RE-ZERO** key several times to display **UFnC V<sub>COM</sub>**.
  5. Press the **PRINT** key to return to the internal setting.
  6. Press the **CAL** key with the **RPFnC** to return to the weighing mode.

### • Installing the driver

For Windows10

Connect the GX-AE / GX-A / GF-A to the PC and the driver will be installed automatically.

The COM port name is "USB serial device".

For Windows8.1, Windows7

(1) Download the driver "Virtual COM mode" from A&D website (<https://www.aandd.jp>) and decompress it.

(2) Install the driver to connect the balance to the PC with the USB cable referring to "Installation of driver for GX-A / GF-A series USB interface "Virtual COM mode" in the folder.

The COM port name will be "AND USB Port for Balance".

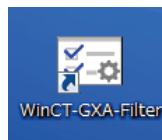
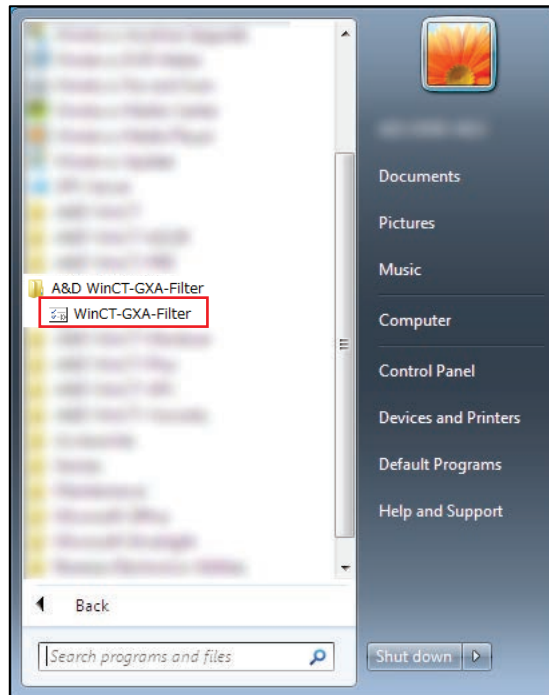
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### 3. Operation

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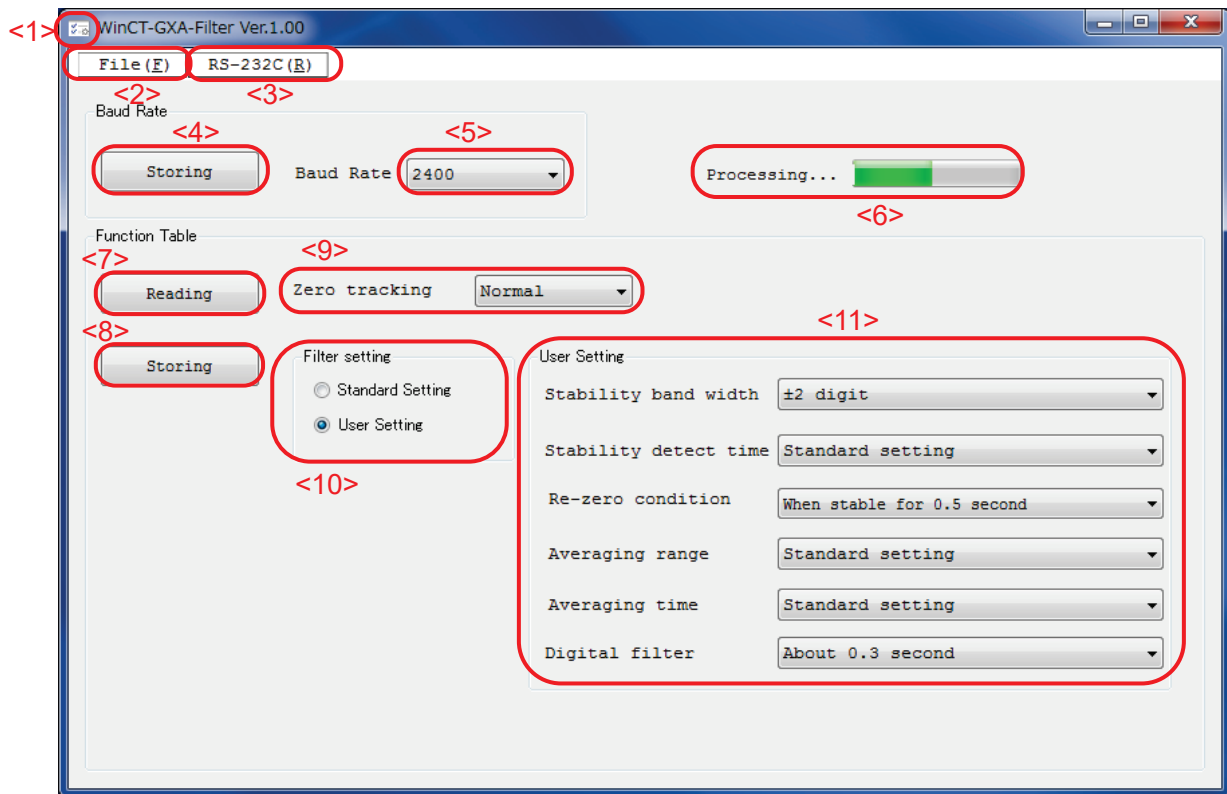
To begin, click the **Start** button on the PC.

Then, navigate to **All Programs > A&D WinCT-GXA-Filter > WinCT- GXA-Filter** to start WinCT-GXA-Filter. Also, you can start by double-clicking the WinCT-GXA-Filter icon on the desktop.



- \* Operation with the software is not guaranteed when connected to a balance other than GX-AE/GXA/GFseries or made by another company.
- \* For details on the PC, please contact each manufacturer.

## 4. Description of each part



<1>Icon

The icon changes to a flashing while communicating with the balance.



### MENU

<2>[File (F)]

Operates files.

[Open (O)]

Read the CSV file saving the content of [Function Table].

[Save (S)]

Save the content of the current [Function Table] in CSV file format.

<3> [RS-232C(R)]

The RS-232C communication settings (“\*” indicates the initial setting.)

[Com Port(C)]

Select the COM port of the PC.

Displays the COM ports that exist on the PC.

[Baud rate (B)]

Sets baud rate. (600,1200,\*2400,4800,9600,19200,34800)

[Parity (P)]

Sets parity (\*Even,Odd,None)

[Data length (L)]

Sets data length (\*7,8)

[End(X)]

Close WinCT-GXA-Filter



**【Baud Rate】**

- <4> [Storing] button                      Store setting of baud rate to balance.
- <5> [Baud Rate]                              Select baud rate (600,1200,2400,4800,9600,19200,34800)
- <6> Progress bar                              Displayed during communication with the balance to show progress of the process.

**【Function Table】** (“ · ” mark indicates the default setting of the balance)

- <7> [Reading] button                      Displays the settings of balance.
- <8> [Storing] button                        Sends changed settings to the balance.
- <9> [Zero tracking]                         Keeps the display at zero by tracking the zero point. When the display is fluctuating around zero, strengthening zero tracking will keep the display at zero. This setting can be selected regardless of filter choice.

OFF	OFF
Normal ·	Normal (Display will show zero if the fluctuation is $\pm 1$ digit within 1 second.)
Strong	Strong (Display will show zero if the fluctuation is $\pm 1$ digit within 0.5 seconds.)
Very Strong	Very Strong (Display will show zero if the fluctuation is $\pm 1$ digit within 0.2 seconds.)

- <10> [Filter Setting]                        Switches the extended function (detailed filter setting) on or off.
- [Standard Setting]                         This is the factory default setting.
- [User Setting]                                This mode enables the response characteristics of the balance to be set more finely.

<11>[User Setting]

These are items that can be changed in User Setting Mode.

[Stable detection range]

If the weighing value is within a certain range (stable detection range) and a certain time (stable detection time) has passed, it is judged to be stable. If it is judged to be stable, the display will show a circle indicating the value is stable.

If it is judged to be unstable, that circle will disappear.

In this setting, set the stable detection range. If you want to judge strictly until stable, set the numerical value to a smaller one.

For loose judgement, set the numerical value to a larger one.

Stable detection range St-b	Description
0	± 1digit
1	± 2digit
2	± 3digit
3	± 4digit
4	± 5digit
5	± 6digit
6	± 7digit
7	± 8digit
8	± 9digit
9	± 10digit

[Stable detection time]

If the weighing value is within a certain range (stable detection range) and a certain time (stable detection time) has passed, it is judged to be stable. If it is judged to be stable, the display will show a circle indicating the value is stable.

If it is judged to be unstable, that circle will disappear.

In this setting, set the stable detection time. If you want to judge strictly until stable, set the numerical value to a larger one.

For loose judgement, set the numerical value to a smaller one.

Stable detection time St-t	Description
0	Standard setting
1	0.1second
2	0.2second
3	0.3second
4	0.4second
5	0.5second
6	0.6second
7	0.7second
8	0.8second
9	0.9second

[Re-zero condition]

The re-zero operation to set the display value to zero waits for the weight value to stabilize, stores that point as the zero point, and resets the display to zero.

In this setting, set the condition for waiting for the re-zero operation to stabilize.

Re-zero conditions Sr-t	Description
0	Immediately re-zero regardless of stability
1	Immediately re-zero when stable
2	Re-zero when in stable state for 0.2 seconds
3	Re-zero when in stable state for 0.3 seconds
4	Re-zero when in stable state for 0.4 seconds
5	Re-zero when in stable state for 0.5 seconds
6	Re-zero when in stable state for 0.6 seconds
7	Re-zero when in stable state for 0.7 seconds
8	Re-zero when in stable state for 0.8 seconds
9	Re-zero when in stable state for 0.9 seconds

[Averaging range]

Averaging begins when weight variation is within a designated range. When filling very small amounts, if the averaging range is large, the weight will not deviate from the averaging range and the response can be slow. You can reduce the averaging range to increase the response speed. On the other hand, when the averaging range is small, the measured weight can become unstable. In this case, you can increase the averaging range.

**Note:** Averaging ranges are different depending on the digital filter settings. This table shows reference values.

Averaging range F1-b	Description
0	Standard setting
1	5digit
2	10digit
3	15digit
4	35digit
5	70digit
6	100digit
7	Always ON

[Averaging time]

Averaging begins when weight fluctuations are within a designated range. When the number of measurements averaged reaches the averaging time, further data will be represented as a moving average. You can change the time of the moving average with this setting.

Averaging time F1-t	Description
0	Standard setting
1	None
2	0.5 sec
3	1.0 sec
4	1.5 sec
5	2.0 sec
6	2.5 sec
7	3.0 sec

[Digital filter]

You can use this option to change the measuring speed (response) characteristics. The settings for Digital filter under User Setting are shown below. Choose a smaller value for faster response. For more stability choose a larger value.

Digital filter delay time dF	Description
0	0.3 second Fast response, unstable
1	0.5 second
2	0.7 second
3	0.8 second
4	1.1 second
5	1.5 second
6	2.0 second
7	2.5 second
8	3.3 second
9	5.0 second
10	6.6 second Slow response, stable

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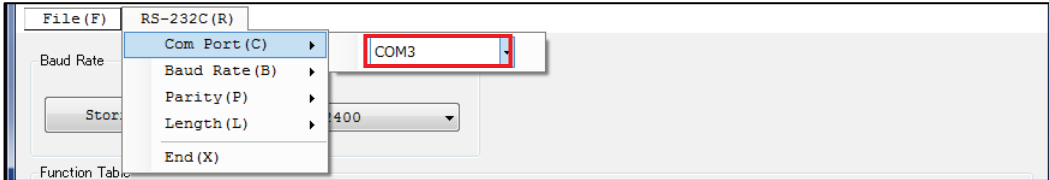
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## 5. How to operate

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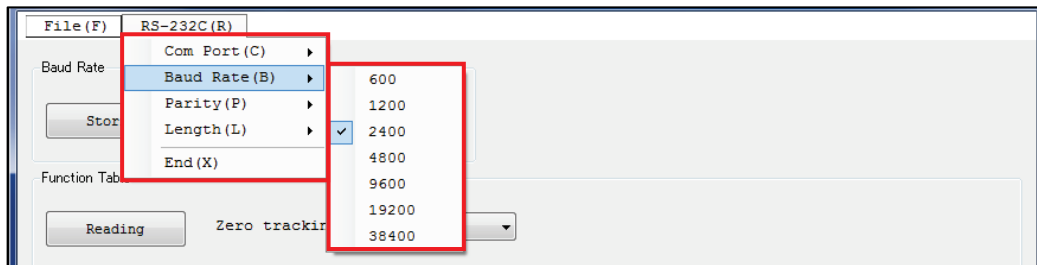
### 5-1. Communication setting

Step1 Select [COM port(C)] in [RS-232C(R)] and select the COM port to connect to the balance.



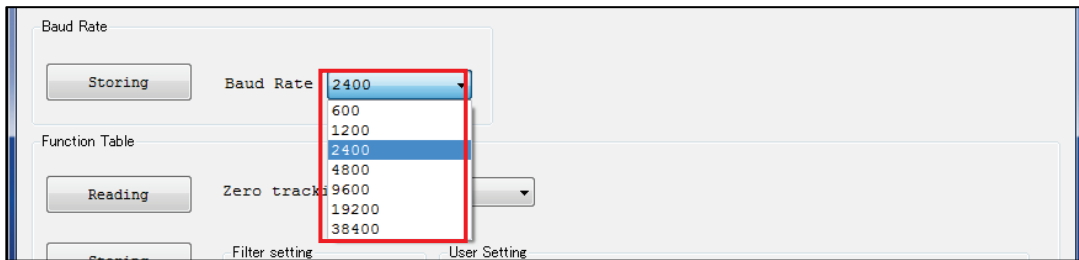
Step2 Match the [Baud rate], [Parity] and [Data length] settings with settings of the balance.

(The default communication setting of WinCT- GXA-Filter is the same as the factory default setting of GX-AE / GX-A / GF-A series.)



## 5-2. Changing the baud rate

Step 1 Click [Baud Rate] to set the same baud rate of balance.



Step 2 Click [Storing] button.

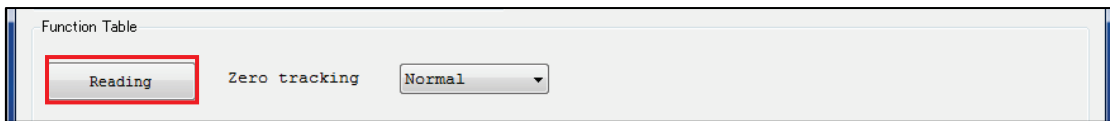


Step 3 Communication with the balance starts and the setting value will be sent. Completed that the baud rate is changed with "Successfully completed" indication, and click [OK].

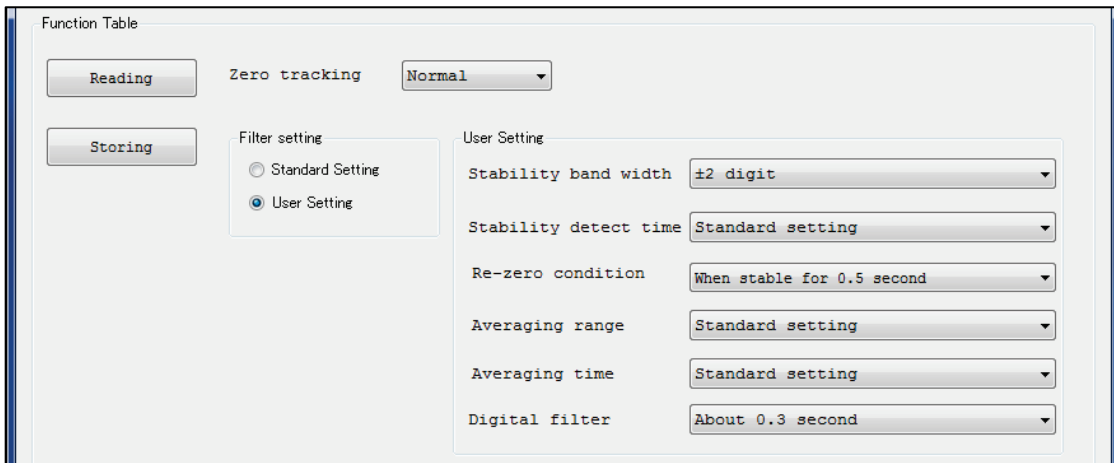
The [Baud rate (B)] setting in the [RS-232C(R)] menu is also updated automatically.

### 5-3. Changing the filter settings

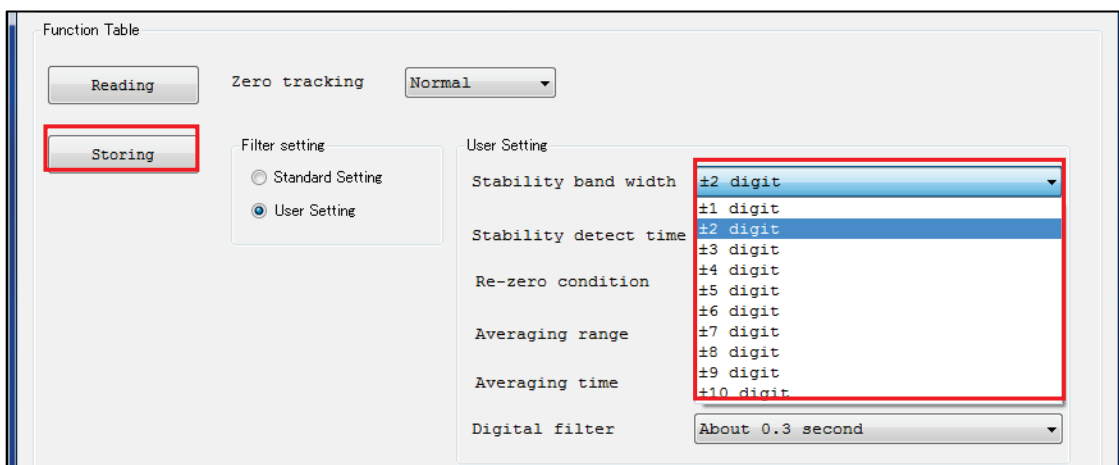
Step 1 Click [Reading] button



Step 2 The current internal memory settings of the balance will be read all at once.  
If the setting is received correctly, the status of the balance will be displayed.



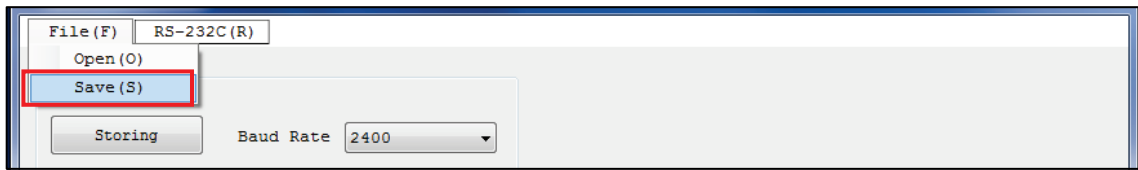
Step 3 Select the setting item to change the setting value to the desired value.  
When all setting values have been selected, click the [Storing] button.



Step 4 Communication with the balance starts to send the setting data.  
When the transmission is completed successfully, a dialog box indicating the completion is displayed. Click [OK].

#### 5-4. Storing setting value to CSV file

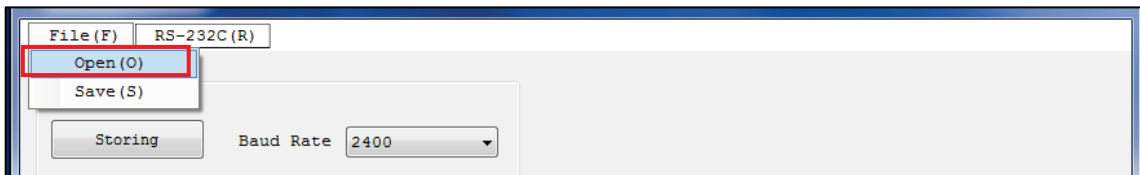
Step 1 Click [Save(S)] in the [File(F)] menu.



Step 2 A dialog is displayed. Specify the storage folder, enter a filename, and click [Save(S)].

#### 5-5. Reading the stored CSV file

Step 1 Click [Open(O)] in the [File(F)] menu.



Step 2 A dialog is displayed. Specify the CSV fil to be read to click [Open(O)].

Step 3 When the file has been read, the contents of the internal settings saved in the [Setting table] are displayed.



## 5-6. Changing the setting value in CSV file directly

Step 1 Open the CSV file to be changed in Excel.

	A	B	C	D	E	F	G	H
1	WinCT-GXA-Filter							
2	Item	Setting value	Upper limit	0	1	2	3	
3	Zero tracking	1	3	Off	Normal	Strong	Very strong	
4	Filter setting	1	1	Standard setting	User setting			
5	Stability band width	1	9	1 digit	2digit	3digit	4digit	5digit
6	Stability detect time	0	9	Standard setting	0.1second	0.2second	0.3second	0.4second
7	Re-zero condition	5	9	Instantly regardless of the condition	Instantly when stable	When stable for 0.2second	When stable for 0.3second	When stable for
8	Averaging range	0	7	Standard setting	About 5digit	About 10digit	About 35digit	About 50digit
9	Averaging time	0	7	Standard setting	None	0.5second	1.0second	1.5second
10	Digital filter	0	10	0.3second	0.5second	0.7second	0.8second	1.1second
11								
12								

Step 2 To change the setting, rewrite the value in the second column from the left.

**Note :** Do not change any values or texts other than those in this column, as this may cause the software to malfunction.

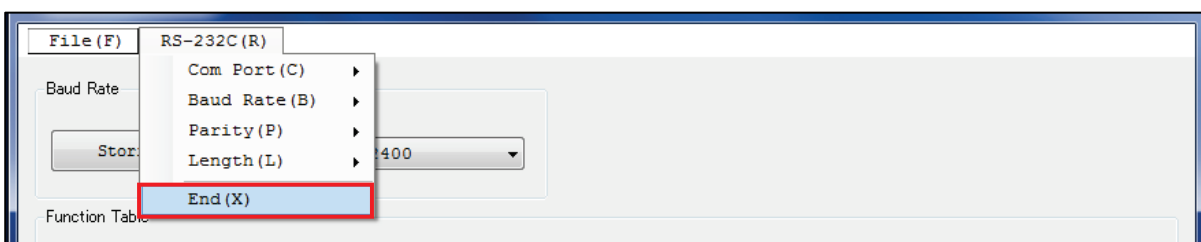
	A	B	C	D	E	F	G	H
1	WinCT-GXA-Filter							
2	Item	Setting value	Upper limit	0	1	2	3	
3	Zero tracking	1	3	Off	Normal	Strong	Very strong	
4	Filter setting	1	1	Standard setting	User setting			
5	Stability band width	1	9	1 digit	2digit	3digit	4digit	5digit
6	Stability detect time	0	9	Standard setting	0.1second	0.2second	0.3second	0.4second
7	Re-zero condition	5	9	Instantly regardless of the condition	Instantly when stable	When stable for 0.2second	When stable for 0.3second	When stable for
8	Averaging range	0	7	Standard setting	About 5digit	About 10digit	About 35digit	About 50digit
9	Averaging time	0	7	Standard setting	None	0.5second	1.0second	1.5second
10	Digital filter	0	10	0.3second	0.5second	0.7second	0.8second	1.1second
11								
12								

Step 3 After changing the settings, overwrite or save them in CSV format.

**Note :** Files saved in other than CSV format cannot be read by this software.

## 6. Completion of the software

To exit WinCT-GXA-Filter, click [End(X)] in the [RS-232C(R)] menu or click the “x” (close) button in the upper right of the window.









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