

RTS Tools



Table of contents

1. Overview
2. Note
3. License agreement
4. Preparation before using
5. RTSLogTool
6. RTSInputTool
7. How to use the Tools
8. Trouble shooting

1. Overview

Thank you very much for downloading RTS Tools.

RTS Tools (RS Terminal Software Tools) is a Windows application that records balance data from SHINKO DENSHI electronic balances to a Windows PC. RTS Tools consists of two types of tools, RTSLogTool and RTSInputTool.

RTSLogTool



This is a tool for recording balance data in a Windows PC in text file format or CSV file format.

The data imported to RTSLogTool is automatically saved in a file.

You can send commands from the RTSLogTool to your balance.

RTSInputTool



This is a tool for recording balance data directly in your application (Microsoft Excel, etc.).

2. Note

- Before using RTS Tools, it is recommended to back up important data on Windows PC just in case.
- For Windows PC and commercial software other than RTS Tools, please contact each manufacturer.
- RTS Tools is not intended for legal for trade use.
- The copyright of this document belongs to SHINKO DENSHI CO., LTD., and part or all of the contents of this document cannot be reprinted or reproduced without permission.
- The contents of this manual are subject to change without notice.
- Microsoft, Windows, Excel and Word are registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.
- The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by SHINKO DENSHI CO., LTD. is under license. Other trademarks and trade names are those of their respective owners.

3. License agreement

- Unauthorized copying of RTS Tools is prohibited.
- Specifications of RTS Tools are subject to change without notice.
- SHINKO DENSHI Co., Ltd. owns the copyright of RTS Tools.
- RTS Tools can be used to record data from SHINKO DENSHI electronic balances to a Windows PC.
- RTS Tools can be installed and used only on the hard disk or other storage device of the Windows PC connected to the balance.
- SHINKO DENSHI CO., LTD. shall not be held responsible for any direct or indirect, special or inevitable damage caused by defects in RTS Tools or this document, even if it is informed that such damage may occur. In addition, we are not responsible for claims of rights made by third parties. At the same time, we are not responsible for any loss of software or data.

July 1, 2020

SHINKO DENSHI CO., LTD.

4. Preparation before using

4.1 Equipment

Electronic balance

Please have a SHINKO DENSHI' s electronic balance with RS-232C, USB, or Bluetooth.

Windows PC

The usage environment is as follows.

item	conditions
Supported OS	Windows 10 (64bit)
.NET Framework	Ver.4.6 or higher
Display resolution	XGA(1024×768 Pixel) or higher

Note

If the display size is set to anything other than 100%, the following phenomena may occur.

- The screen layout may be distorted.
- Characters on the screen are cut off in the middle.

Application

When using RTSInputTool, prepare a transfer destination application such as Microsoft Excel by yourself.

Cable

A cross cable is required for RS-232C connection between SHINKO EDNSHI' s electronic balance and Windows PC.

For more details such as wiring diagrams, refer to the operation manual of the product you purchased.

4.2 Connection

Connection between Electronic Balance and Windows PC (RS-232C, USB)

Step 1. Select COM port

Connect the prepared cable to the Windows PC and select the COM port on the Windows PC side.

Step 2. Cable connections

Connect the balance and the cable.

Note

When using USB connection, a USB driver is required. For more details, please refer to the operation manual of the product you purchased.

Connecting the balance to a Windows PC (Bluetooth)

Refer to the operation manual for the product you purchased, and pair the electronic balance and the PC.

Balance settings

For more details on the "Communication settings" and "Data output settings" of the balance, refer to the operation manual of the balance to be used.

5. RTSLogTool

5.1 About RTSLogTool

Feature

- You can control the balance by sending commands from a Windows PC.
- Data can be sent and received between the balance and Windows PC.
- The sent and received data can be displayed on the Windows PC screen and saved in text file format or CSV file format.
- Received data is automatically saved in a file.
- The sent and received data can be printed on the printer connected to the Windows PC.
- Communication can be performed simultaneously with multiple balances connected to the Windows PC.
- It can be executed simultaneously with other applications.
- The GLP output data of the balance can also be received.

5.2 Explanation of each part for RTSLogTool

This tool consists of four blocks.

1 Communication settings

This block sets the communication settings of the tool.

2 Receive settings

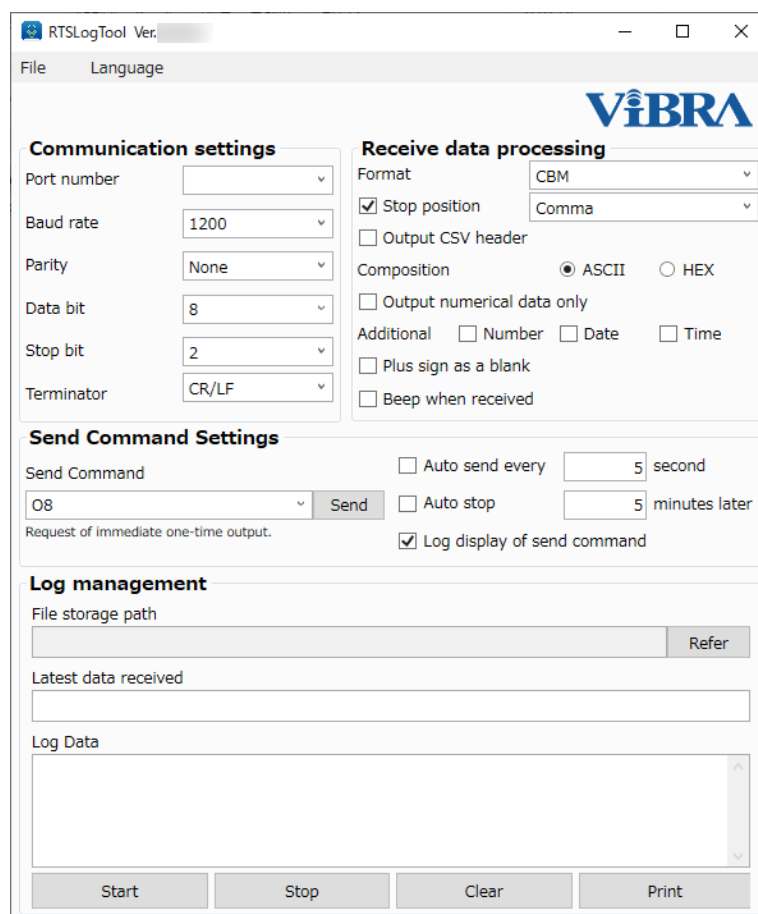
This block sets the received data.

3 Send command setting

This block sets the send command.

4 Send/receive log

This block is used to start and stop logging.



The screenshot shows the RTSLogTool Ver. application window. The window title is "RTSLogTool Ver." and it has a menu bar with "File" and "Language". The VIBRA logo is displayed in the top right corner. The interface is divided into several sections:

- Communication settings:** Includes dropdown menus for Port number, Baud rate (1200), Parity (None), Data bit (8), Stop bit (2), and Terminator (CR/LF).
- Receive data processing:** Includes a Format dropdown (CBM), a checked checkbox for Stop position, an unchecked checkbox for Output CSV header, a Composition section with radio buttons for ASCII (selected) and HEX, an unchecked checkbox for Output numerical data only, an Additional section with checkboxes for Number, Date, and Time, an unchecked checkbox for Plus sign as a blank, and an unchecked checkbox for Beep when received.
- Send Command Settings:** Includes a Send Command dropdown (O8), a Send button, an unchecked checkbox for Auto send every 5 seconds, an unchecked checkbox for Auto stop 5 minutes later, and a checked checkbox for Log display of send command.
- Log management:** Includes a File storage path field with a Refer button, a Latest data received field, and a Log Data field with a scroll bar.

At the bottom of the window, there are four buttons: Start, Stop, Clear, and Print.

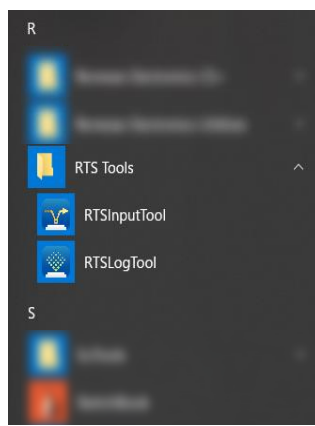
5.3 Operating procedure

5.3.1 Launching /Terminating the tool

Step 1 Start RTSLogTool

Launch from the “Start” menu of the Windows PC.

Launch in the order of ”Start”->”Programs”->”RTS Tools”->”RTS Log Tool”.



Step 2 Language setting

Select Menu → Language → “English” to display in English.

Step 3 Communication settings

Set up each item of the communication settings to the communication settings of the balance.

For more details on the settings, see ”5.4 Description of Settings”.

Note

- When connecting multiple balances, do not specify the same port.

Step 4 Terminate the tool

Select Menu → File → Exit to terminating RTSLogTool.

5.3.2 Log starting/terminating

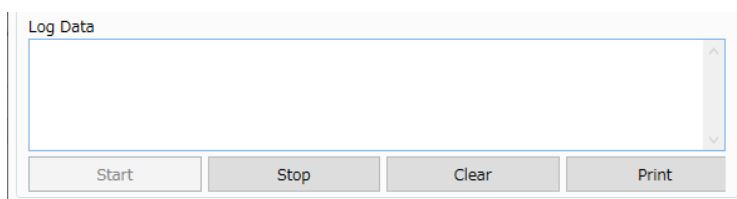
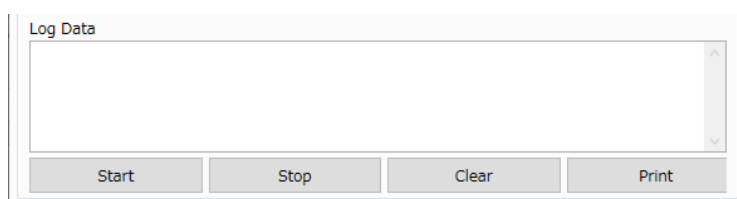
Step 1 Start logging

Click the [Start Log] button.

Set the folder and file name to save the log, and click Save.

The path and file name of the folder where the log is saved are displayed in [File save path].

The [Log Start] button turns gray on as shown in the figure and the communication becomes possible.



Step 2 Data output from the balance

Data is output from the balance.

Step 3 Check the received data

Confirm the weight value of the balance is displayed in [Latest Received Data] of the Windows PC.

If the weight value is not displayed, refer to "8. Troubleshooting".

The received data is displayed in [Log data].

The received data is automatically saved in the file.

Step 4 Command transmission

Select a command in [Send command] and click the [Send] button to send the command to the balance.

Step 5 End log

Click the [End Log] button to stop communication.

5.4 Explanation of settings

1 Communication settings

Match each communication setting to the communication setting of the balance body.

Setting items.	The content to display in the list
Port	COM port recognized by Windows PC.
Baud rate	1200 · 2400 · 4800 · 9600 · 19200 · 38400 · 57600 · 115200 ※Unit is bps.
Parity	None/Odd/Even
Data length	7 · 8 ※Unit is bit.
Stop bit	1 · 2 ※Unit is bit.
Terminator	CR/LF · CR

2 Receive settings

Set the received data.

Format to use

Set up the format output from the balance.

- Number 6-8
Select when the output (communication) format of the balance is set to 6 digits numeric format, 7 digits numeric format, or 8 digits numeric format.
- CBM Printer
Select when the output (communication) format of the balance is CBM format.
- Others
Select when using GLP output data.
Select this when using a format other than 6-8 and CBM printer.
If selected, some features will be limited.

Data delimiter

- If checked, data delimiters are inserted during data logging.
- Select the delimiter from the comma space tab displayed in the list.
- If [Other] is selected as the format to use, data delimiter cannot be used.

Output CSV header

- If checked, a CSV header will be output when logging starts.

Format

- Select the log data format from ASCII or HEX.

Output only numerical data

- When checked, only numerical data will be output.

Additional information

- Set the data to be output in addition to the weighing data.
- If the number is checked, the number will be added to the beginning of the log data.
- If the date is checked, the date will be added after the log data.
- If the time is checked, the time will be added after the log data.

Blank plus sign

- If checked, the + sign of the data is replaced by blank.
- If [Other] is selected as the format to be used, the plus sign cannot be blank.

Beep sound when receiving

- If checked, the beep sound of the Windows PC will be emitted when receiving data.

- The beeper may not sound depending on Windows PC.

3 Sending command setting

Sending command

- Set the command to send.
- Commands can be selected from the list.
- Commands not in the list can be used by directly entering them in the [Send command] field.
- When a command is selected from the list, the command description is displayed below the [Send command] column.
- For the commands that can be used with the balance, refer to the instruction manual of the balance.

Sending button

- Sends the command set in the [Send command] field.

Automatic transmission

- If Auto Send is checked, the command will be sent automatically every set time.
- Time can be set in seconds.
- Set the value to 5 seconds or more.

Note

- If Auto Send is not checked, click the [Send] button to send the command.
- When acquiring data for less than 1 second, set the data output control setting of the balance to "continuous output".
- For the data output interval in "continuous output", refer to the instruction manual of the balance to be used.

Automatic termination

- If automatic end is checked, command transmission will end automatically every set time.
- The time can be set in minutes.
- Set the value more than 1 minute.

Display the send command in log

- If checked, the command sent will be displayed in the log.

4 Sending/Receive log

File save path

- The saving path and file name of the file to be logged are displayed.

Browse button

- Open the save folder of the log file.

Latest received data

- Display the latest data received.

Log data

- Display the log of the received data.
- The log data size can be increased by increasing the size of the tool window.
- You can check the previous data by moving the scroll bar next to the log data.

[Start Log] button

- Open the port and start communication.

[End Log] button

- Communication will be stopped.

[Log clear] button

- Clear [Log data] display

[Log print] button

- Print the log data with the printer connected to the Windows PC.

6. RTSInputTool

6.1 About RTSInputTool

Feature

- Weighing data output from the balance can be directly transferred to applications such as Microsoft Excel.
- Weighing data output from the balance can be input to the application as if it were input from the keyboard.
- The application type does not matter.
- The GLP output data of the balance can also be received.

Note

- When using Microsoft Excel, please use the display format setting the character string.

6.2 Explanation of each part

This tool consists of 3 blocks.

1 Communication settings

This block sets the communication settings of the tool.

2 Application

This block sets the data input method and starts data input.

3 Receive settings

This block sets the received data.

RTSInputTool Ver. 1.0.0.0

File Language

VIBRA

Communication settings

Port number

Baud rate

Parity

Data bit

Stop bit

Terminator

Application

Data input method

External display Data input

Receive data processing

Format

Decimal Point Dot(.) Comma(,)

Stop position

Delete ([]) for auxiliary readability

Output numerical data only

Additional data Number Date Time

Plus sign as a blank

Interval timer sec.

Beep when received

6.3 Operating procedure

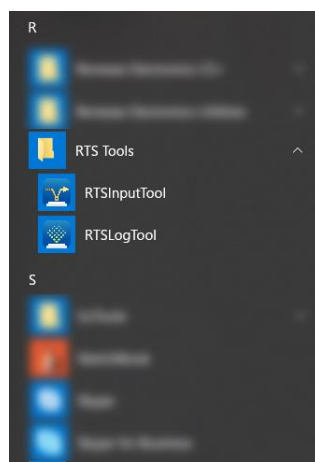
6.3.1 Starting/terminating the tool

Step 1 Start RTSInputTool

Start it from the start menu of the Windows PC.

Start it from the start menu of the Windows PC.

Start in the order of "Start" -> "Programs" -> "RTS Tools" -> "RTS Input Tool".



Step 2 Language setting

Select Menu → Language → English/English to display in Japanese.

Step 3 RS-232C settings

Match each item of the communication settings to the communication settings of the balance body.

For details on the settings, refer to "6.4 Description of Settings".

Step 4 Exit the tool

Select Menu → File → Exit to quit RTSInputTool.

6.3.2 Start and end of use

Step 1 External display

Press the [Activate external display] button to display the external display.

Step 2 Data output from the balance

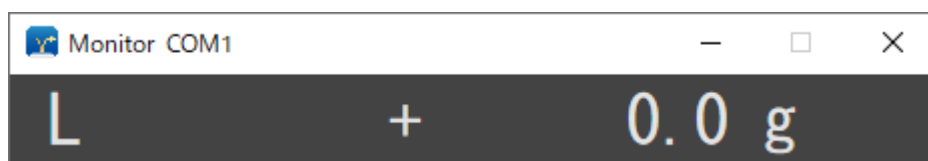
Data is output from the balance.

Step 3 display confirmation

Confirm that the weight value is displayed on the external display.

If the weight value is not displayed, refer to “8. Troubleshooting” .

The size of the external display can be changed.



Step 4 Exit external display

Click the [x] button to close the external display.

Step 5 Start the external application

Start an application (such as Microsoft Excel) that inputs data from the balance.

Step 6 Windows PC input function settings

Turn off the Japanese input function and set it to direct input.



Step 7 input position adjustment

Please move the cursor to the place to input.

If you are using Microsoft Excel, select the cell you want to enter.

Step 8 start input

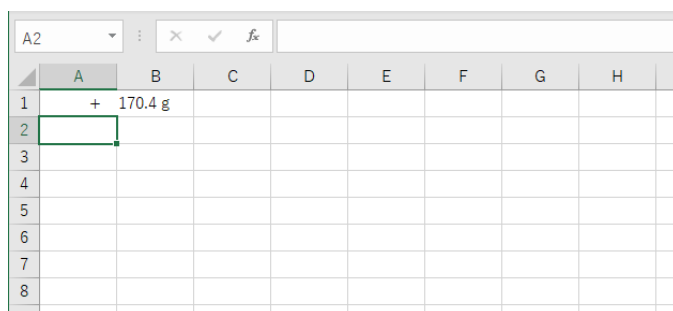
Press the [Start input to application] button.

The display is minimized and the data from the balance is ready to be received.

Step 9 Input to external application

Press the balance output key when the balance stability mark is illuminated.

The data is transferred and entered at the cursor position.



The image shows a screenshot of a Microsoft Excel spreadsheet. The active cell is A2, which is highlighted with a green border. The spreadsheet has columns labeled A through H and rows labeled 1 through 9. In row 1, column A, there is a plus sign (+) followed by the text "170.4 g". The rest of the cells are empty.

	A	B	C	D	E	F	G	H
1	+ 170.4 g							
2								
3								
4								
5								
6								
7								
8								
9								

Step 10 end input

Click RTS Input Tool on the task bar.

Communication will be stopped and the normal display of RTS Input Tool will reappear.

Notes and memos

- RTSInputTool converts data to key code and sends the data to the application. If you move the cursor during communication, the data will be sent there, so be careful not to move the cursor.
- For inquiries regarding the destination application, please contact the manufacturer.
- The order in which the application and RTSInputTool are started does not matter.
- Data transfer is possible when RTSInputTool is minimized.
- To receive the RTSInputTool in the receivable state (minimized), place the cursor at the position to write the data on the input application.
- If the mouse or key input does not work, stop outputting data from the balance and wait until the screen data is no longer updated. Press RTSInputTool on the task bar, stop the communication, adjust the data reception interval setting, and thin out the data.
- When inputting data to Microsoft Excel and creating a graph in real time, the processing of Microsoft Excel may take time and may not operate properly.

6.4 Explanation of settings

1 Communication settings

Match each communication setting to the communication setting of the balance body.

Setting items.	The content to display in the list
Port	COM port recognized by Windows PC.
Baud rate	1200 · 2400 · 4800 · 9600 · 19200 · 38400 · 57600 · 115200 ※Unit is bps.
Parity	None/Odd/Even
Data length	7 · 8 ※Unit is bit.
Stop bit	1 · 2 ※Unit is bit.
Terminator	CR/LF · CR

2 Application

Data input method

Set the operation after data input.

- Auto
Insert Tab between the data and additional information, and Enter at the end of the data.
- Enter
Insert Enter after data and additional information.
- Tab
Insert Tab after data and additional information.

[Start External Display] button

- Test display of data reception status from the balance.
- When you send data from the balance and the data is displayed on the external display, the reception status is normal.
- The size of the external display can be changed. The font size of the data is also changed according to the size.

[Start input to Application] button

- Minimize RTSInputTool to be ready to receive data from the balance.
- When the data is received, the data is input at the cursor position of the application.
- To cancel the communication, click RTS Input Tool on the task bar.
- When communication is stopped, the normal RTS Input Tool display reappears.

3 Receive settings.

Format to use

Set up the format output from the balance.

- **Number 6-8**
Select when the output (communication) format of the balance is set to 6 digits numeric format, 7 digits numeric format, and 8 digits numeric format.
- **CBM Printer**
Select when the output (communication) format of the balance is CBM format.
- **Others**
Select when using GLP output data.
Select this when using a format other than 6-8 and CBM printer.
If selected, some features will be limited.

Decimal point

- The decimal point of the data can be selected for dot (.) or comma (,).
- If [Other] is selected for the format to use, the decimal point cannot be selected.

Data delimiter

- If checked, data will be separated and logged.
- Select the delimiter from the comma space tab displayed in the list.
- If [Other] is selected as the format to use, data cannot be separated.

Delete the auxiliary display digit delimiter (/[,])

- When checked, delete the auxiliary display digit separator (/[,]) of received data.
- If [Other] is selected as the format to use, the delimiter cannot be deleted.

Output only numerical data

- When checked, only numerical data will be output.

Additional information

- Set the data to be output in addition to the weighing data.
- If the number is checked, the number will be added to the beginning of the log data.
- If the date is checked, the date will be added after the log data.
- If the time is checked, the time will be added after the log data.

Blank plus sign

- If checked, leave the + sign of data blank.
- If [Other] is selected as the format to be used, the plus sign cannot be blank.

Data reception interval

- If checked, you can set the data reception interval.
- When using the RTS, set the data output control setting of the balance to "continuous output".

Beep when receiving

- If checked, the beep sound of your Windows PC will be emitted when receiving data.
- The beeper may not sound depending on your Windows PC.

7. How to use (RTSLogTool · RTSInputTool)

Describes how to use the tool and how to set the balance. Please refer to it. For the functions, operations, and setting methods of the balance, please refer to the instruction manual of the product you purchased.

7.1 To enter the weight value in Excel

- Start Microsoft Excel.
- Run RTSInputTool. Set the RTSInputTool as shown below.

RTSInputTool items	Settings
Format	6-8 digit or CBM (Match the balance settings)
Stop position	Add data delimiter Tab to data delimiter

- Press the [Data input] button to move the cursor to Microsoft Excel.
- Weighing value is output from the balance and input to Microsoft Excel.
- Calculate the total, maximum, minimum, average, standard deviation, etc. of the input data using the function function of Microsoft Excel.

Balance settings	After pressing Key, Output once when stable
Tool to use	RTSInputTool
Application to use	Microsoft Excel

7.2 Printing and recording the balance adjustment result

- Start RTSLogTool and start logging.
- The span adjustment result is output from the balance. The span adjustment result is automatically recorded in the file.
- Click the [Print Log] button of RTSLogTool to print to the printer connected to the Windows PC.

Balance settings	Enable output of span adjustment result
Tool to use	RTSLogTool
Application to use	Non

7.3 Automatically import measurement results into Excel

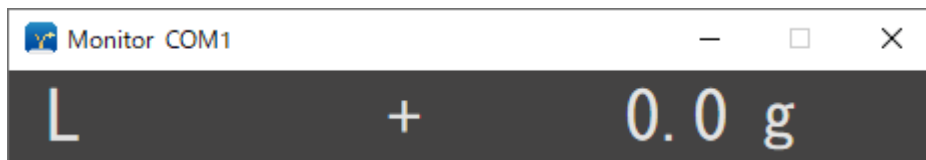
- Set the output condition of the balance to automatic output (output once when stable).
- Start Microsoft Excel.
- Run RTSInputTool and press the [Start input to application] button to move the cursor to Microsoft Excel.
- Place the object to be measured on the balance. The balance outputs the weight value and inputs it into Microsoft Excel.

Balance settings	Automatic output (output once when stable)
Tool to use	RTSInputTool
Application to use	Microsoft Excel

7.4 View measurements on a large screen

- Run RTSInputTool and press the [Start External Display] button.
- Enlarge the external display according to the display of your Windows PC.
- The measured value is output from the balance.

Balance settings	Continuous output
Tool to use	RTSInputTool
Application to use	Non



7.5 Importing inventory results into Excel

- Set the balance to piece mode.
- Start Microsoft Excel.
- Run RTSInputTool and press the [Start input to application] button to move the cursor to Microsoft Excel.
- Place the parts to be inventoried on the balance and output the result (number). It is entered in Microsoft Excel.
- Use the function of Microsoft Excel to perform parts aggregation.

Balance settings	Counting mode
Tool to use	RTSInputTool
Application to use	Microsoft Excel

7.6 Total animal weight

- Put the balance in animal mode.
- Start Microsoft Excel.
- Run RTSInputTool and press the [Start input to application] button to move the cursor to Microsoft Excel.
- Place the animal on the balance and output the weight of the animal. It is entered in Microsoft Excel.
- We will use the function of Microsoft Excel to perform totalization of weight.

Balance settings	Animal mode
Tool to use	RTSInputTool
Application to use	Microsoft Excel

8. Trouble Shooting

8.1 Unable to record balance data on Windows PC

If you cannot record the balance data on Windows PC using RTSLogTool · RTSInputTool, check the following items.

Do not use other applications as much as possible.

Check the connection

Check point	Counter-measure
Is the cable you are using correct? (Using RS-232C/USB)	Please refer to the instruction manual of the product you purchased and use the correct cable.
Are you connected to the balance and Windows PC correctly? (Using RS-232C/USB)	Please connect the cable between the balance and Windows PC.
Did you install the USB driver correctly? (Uses USB)	A USB driver is required when using USB. For details, please refer to the instruction manual of the product you purchased.
Did the cable come off when using the tool?	If the cable comes off while using the tool, you need to end the operation of the tool once.
Did you pair? (Uses Bluetooth)	When using Bluetooth, pairing is required. Refer to the instruction manual for the product you purchased to perform pairing.

Check communication settings

Check point	Counter-measure
Are the balance and tool communication settings (excluding ports) set to the same?	Set the balance and tool communication settings (excluding the port) to be the same.
Have you selected the COM port connected to the balance as the port for communication settings?	Select the COM port connected to the balance as the port for communication settings. If you change the COM settings, please end the operation of the tool once.
Did you change the communication settings while using the tool	If you change the communication settings while using the tool, terminate the operation of the tool once.

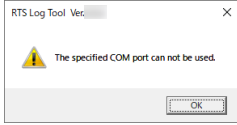
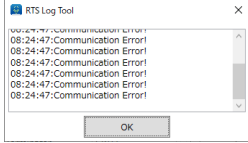
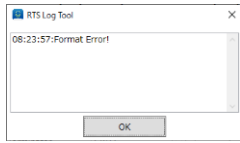
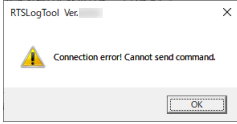
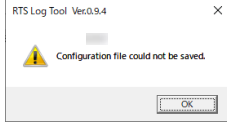
Check output

Check point	Counter-measure
Is data output from the balance?	Please refer to the instruction manual of the product you purchased and output the data from the balance.
Are you using a Shinko Denshi' s balance?	Please use Shinko Denshi balances. The operation of this tool cannot be guaranteed if you use a third-party balance.

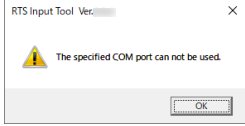
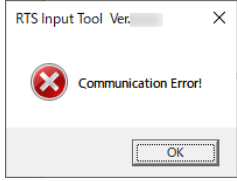
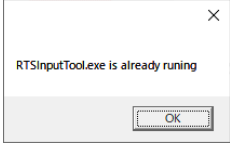
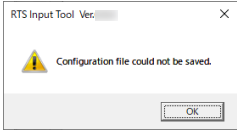
8.2 Error Messages

If you receive an error message, please check the following actions:

For RTSLogTool

Error message	Reason	How to respond
	<p>Messages when logging is started by selecting an unusable port.</p>	<p>Click the [End Log] button to end the log. Select an available port. Press the [Start Log] button to restart logging.</p>
	<p>Messages when the communication conditions of the data from the balance and the communication conditions of the tool are different.</p>	<p>Click the [End Log] button to end the log. Match the communication conditions with those of the balance. Press the [Start Log] button to restart logging.</p>
	<p>Messages when the data from the balance and the tool format are different.</p>	<p>Click the [End Log] button to end the log. Match the format used to the (output) format of the balance. Press the [Start Log] button to restart logging.</p>
	<p>Messages when the [Send] button is clicked without starting logging.</p>	<p>Press the [Start] button to start logging. Press the [Send] button to send the command.</p>
	<p>Messages when the tool settings cannot be saved.</p>	<p>Uninstall RTS Tools. Install RTS Tools again.</p>

For RTSInputTool

Error message	Reason	How to respond
	<p>Messages when logging is started by selecting an unusable port.</p>	<p>Select an available port. Press the [Launch external display] or [Start input to app] button to start each operation.</p>
	<p>Messages when the communication conditions of the data from the balance and the communication conditions of the tool are different.</p>	<p>Match the communication conditions with those of the balance. Press the [Launch external display] or [Start input to app] button to start each operation.</p>
	<p>Message displayed when multiple RTSInputTools are launched...</p>	<p>Do not launch Multiple RTSInputTools.</p>
	<p>Messages when the tool settings cannot be saved.</p>	<p>Uninstall RTS Tools. Install RTS Tools again.</p>