1. Introduction

This manual describes how the AD-8527 works and how to get the most out of it in terms of performance. Please read this manual completely before using the AD-8527.

2. Features

- When connected to the RS-232C interface of a weighing instrument and to a personal computer using USB simultaneously, the AD-8527 can transmit the weighing data that the weighing instrument outputs in real time to the personal computer. This enables a personal computer without COM ports to receive data.
- The AD-8527 functions similar to a USB keyboard. Thus, no software installation such as a driver is not necessary. Once connected as described above, the weighing data can be transmitted to the personal computer.
- The AD-8527 can transmit the data to any application such as Excel, Word and Notepad for Windows.
- As power is supplied to the AD-8527 from the weighing instrument or USB, no special power source is required.
- The AD-8527 has no data storage function. To store data without using a personal computer, use the AD-1688 Weighing Data Logger.

Note: The AD-8527 is supplied power and is turned on only when it is connected to a weighing instrument or the USB of a personal computer.

3. Unpacking

When unpacking, confirm that everything is contained.
- AD-8527 Quick USB Adapter
- USB extension cable (0.5 m)
- RS-232C cable with a D-Sub 9-pin connector (1 m) : AX-K03571-100
- RS-232C cable with a D-Sub 25-pin connector (1 m) : AX-K03572-100
- RS-232C cable with a 7-pin DIN connector (1 m) : AX-K03573-100
- Instruction manual (this document)

4. Connection and Key Operations

<table>
<thead>
<tr>
<th>Key</th>
<th>When pressed (To press and release immediately)</th>
<th>When pressed and held (To keep pressing for 2 seconds or more)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SET</td>
<td>Displays the date and time.</td>
<td>Displays the function setting menus.</td>
</tr>
<tr>
<td>(+)</td>
<td>None</td>
<td>Starts or stops data transmission at a set interval. (Only in the interval mode)</td>
</tr>
<tr>
<td>CANCEL</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

5. Displaying the Date and Time

At the standby display, press the SET key to display the year, date and time.

1. Standby display

2. The display indicates the year and date for 2 seconds each, and then indicates the time.

3. Press any key to return to the standby display.

6. Setting the Date and Time

Note: The date and time were set to the Japanese standard time at the factory when shipped. Before use, set the date and time to your local time.

Change the date and time as follows.

1. Refer to "5. Displaying the Date and Time" to display the date and time.
2. When the year, date or time is displayed, press and hold the SET key for 2 seconds or more. The display flashes and the AD-8527 enters the setting mode.
3. Using the following keys to set the date and time.

   (+) key: Increase the value by one
   CANCEL key: Decrease the value by one
   SET key: Confirm the setting and go to the next item.

4. Change the date and time as follows.

   When pressed and held
   - For 2 seconds or more, the value is increased or decreased continuously
   - For 2 seconds or more

5. Disconnect the personal computer from the AD-8527.

7. Transmitting the Weighing Data

Transmitting data from a weighing instrument to a personal computer.

1. Connect the AD-8527 to the USB port of a personal computer and connect the AD-8527 to a weighing instrument using the RS-232C cable.

Note: Use the cable appropriate to the RS-232C connector of the weighing instrument.

Power is supplied to the AD-8527 and the standby display appears.

If either USB or RS-232C is not connected, "- - - -" appears.

2. Press the PRINT key of the weighing instrument to transmit the data to the AD-8527.

3. The AD-8527 transmits the data to the personal computer as keyboard input signals. When transmitted, a buzzer sounds and "out" appears for about 2 seconds.

Note: If data is not input into Excel correctly, refer to "10.2. If the Data Fails to be Input into Excel Correctly".

When transmitting GLP output and statistical results, set the weighing instrument "Data output pause (PS)” to “Pause (1.6 seconds)".

3. Repeat step 2 as necessary.
4. Disconnect the weighing instrument from the AD-8527.
5. Disconnect the personal computer from the AD-8527.
8. Function Settings

In the function setting mode, settings of the AD-8527 performance and communication can be changed. Each function has parameters. By changing the parameter, specify the performance of the function.

The set parameters are maintained in memory even if the AD-8527 is disconnected from the weighing instrument or personal computer.

8.1. Setting Procedure

1. At the standby display, press and hold the SET key for 2 seconds or more.

2. The function display appears. (Refer to “8.2. Function List.”) Press the (+) key to select a function, and press the SET key to display the parameters.

3. The parameter of the selected function appears. The current setting has the ► mark at the lower right.

4. Using the following keys to change the parameter.
   - (-) key: Display the parameters one by one
   - CANCEL key: Go to the next function without changes.
   - SET key: Confirm the setting and go to the next function.
   - (+) key: Factory setting

   About the number of data on a line, interval time, date and time data, refer to the following sections.

8.2. Function List

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>bPS</td>
<td>Parameter 600, 1000, 2400, 4800, 9600, 19200 bps</td>
</tr>
<tr>
<td>bPr</td>
<td>BPS table, parity</td>
</tr>
<tr>
<td>Number of data on a line</td>
<td>Parameter 1, 2, 3, 4, 5, 6, 7</td>
</tr>
<tr>
<td>bEEP</td>
<td>Parameter: Turns the buzzer on, Does not sound</td>
</tr>
<tr>
<td>Data transmission mode</td>
<td>Parameter: Standard mode (ALL data), Interval mode</td>
</tr>
<tr>
<td>Date format</td>
<td>Parameter: YMD, MDY, DMY</td>
</tr>
</tbody>
</table>

8.3. Data to Transmit

Adding the date and time

The date and time when the AD-8527 receives the data can be transmitted to a personal computer. The date, time and weight are separated by tab.

e.g.: 6/10/2009_Tab_10:41:24_Tab_+00123.45<Enter>

Example below is when the data is transmitted to Excel

GLP output, transmitting all data is required.

For example, the received data is “ST,+00123.45 g”. When transmitting weight values only is selected, “+00123.45 g” will be transmitted.

Selecting data to transmit

Two ways of transmitting data are available: weight values only or all data. Transmitting weight values only is convenient when performing statistical calculations using Excel. When performing GLP output, transmitting all data is required.

For example, the received data is “ST,+00123.45 g”. When transmitting weight values only is selected, “+00123.45 g” will be transmitted. When transmitting all data is selected, “ST,+00123.45” g” will be transmitted.

Number of data on a line

This function is useful for storing data with different contents or items at the same time, for example, ID and number of samples and weight is input in a counting scale. When the number is set, <CR>’s up to the setting are converted to commas. Once the number of <CR>’s reached the setting, a new line starts.

For example, the ID, number of samples and weight are sent individually. Using this function, these three data items can be placed on one line as shown in (B).

Example data received to transmit to Excel

ID,000123<CR><LF>
QT,+00000056 PC<CR><LF>
ST,+0003.102   g<CR><LF>
OK

(A) When the number of data on a line is 1, the ID, number of samples and weight are input on separate lines.

(B) When the number of data on a line is 3, the ID, number of samples and weight are input on one line.

9. Interval Mode

In the interval mode, the weighing data is transmitted at a certain interval.

Available intervals are:
- 1, 2, 5, 10, 15, 20, 30 seconds / 1, 2, 5, 10, 15, 30 minutes / 1 hour

1. Connect the AD-8527 to a personal computer using USB.

2. Connect the AD-8527 to a weighing instrument using the RS-232C cable.

3. Select the interval mode (+) for the function setting and set the interval time (120 seconds in the example).

4. Press the CANCEL key to return to the standby display.

5. The ► mark turns on at the lower right.

6. Set the data output mode of the weighing instrument to the stream mode.

7. Press and hold the (+) key for 2 seconds or more.

8. The AD-8527 starts to transmit the data at a set interval. “%d” is placed next to the ► mark while the data is transmitted.

9. To stop transmitting the data, press and hold the (+) key.

The ► mark stops flashing and turns on.

10. Errors

10.1. Error Display

Error Description Remedy
The supplied voltage is low. Confirm that the USB is connected correctly.
The baud rate and parity of the received data is different from the set values. Set the same values for both the AD-8527 and the weighing instrument.
Internal clock error such as low backup battery Ask for repair.

If data is not input into Excel correctly when using Windows XP, do as follows.

1. Open “Control Panel”, and then “Regional and Language Options”.

2. Select the Languages tab and click on the Details button.

3. Select the Advanced tab and check the Turn off advanced text services box.

11. Specifications

<table>
<thead>
<tr>
<th>Devices</th>
<th>Balances and scales with an RS-232C connector manufactured by A&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable OS</td>
<td>Windows 2000 / XP / Vista</td>
</tr>
<tr>
<td>Clock error</td>
<td>±1 minute / month</td>
</tr>
<tr>
<td>Dedicated power supply</td>
<td>Not required</td>
</tr>
<tr>
<td>Power is supplied from a weighing instrument or a personal computer.</td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5°C to 40°C</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>85%RH or less, no condensation</td>
</tr>
<tr>
<td>Dimensions</td>
<td>55x103x16.5 mm</td>
</tr>
<tr>
<td>Mass</td>
<td>Approximately 60 g</td>
</tr>
</tbody>
</table>

Windows Explorer, Excel, Word and Notepad are registered trademarks of Microsoft Corporation.