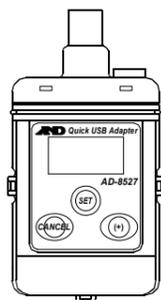


AD-8527 Quick USB Adapter

Instruction Manual



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The contents of this manual and the specifications of the instrument covered by this manual are subject to change for improvement without notice.



1WMPD4001958A

Using the AD-8527

When operating this instrument, be sure to observe the following:



- Do not open the case to repair the AD-8527. Only qualified personnel can do that. Attempting repairs yourself may cause damage to the AD-8527. Damage caused by attempting to do the repair yourself will void the warranty.

Precautions on Usage



- With the cap attached over the connectors, the AD-8527 is protected against water splashing (equivalent to IP65). Please note that it will not endure immersion in water or high pressure running water.
- 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.

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

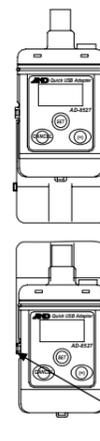
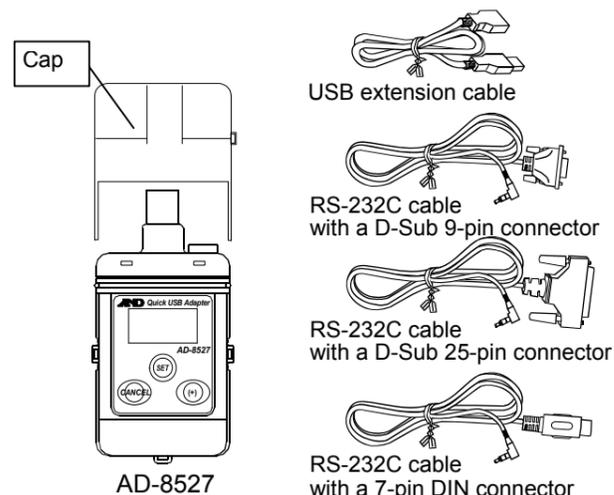
- When connected to the RS-232C interface of a weighing instrument and to a personal computer using USB simultaneously, the AD-8527 can transmit the weighing data that the weighing instrument outputs in real time to the personal computer. This enables a personal computer without COM ports to receive 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. Note that Command transmission from the personal computer to the weighing instrument is not available.
- 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-KO3571-100
- RS-232C cable with a D-Sub 25-pin connector (1 m) : AX-KO3572-100
- RS-232C cable with a 7-pin DIN connector (1 m) : AX-KO3573-100
- Instruction manual (this document)

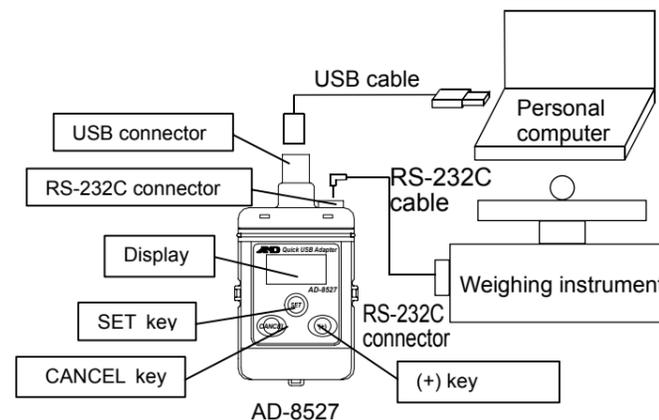


When the AD-8527 is in use, the cap can be attached on the bottom.

Each side has an opening. Use the openings as follows.

- A: Attach a strap to carry.
- B: Connect the cap and the main unit so that the cap will not be lost.

4. Connection and Key Operations



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

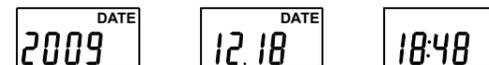
5. Displaying the Date and Time

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

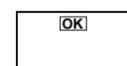
- Standby display



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



- 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.

- Refer to "5. Displaying the Date and Time" to display the date and time.

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.

Using the following keys to set the date and time.

- (+) key: Increase the value by one
- CANCEL key: Decrease the value by one

When the above keys are held pressed, the value is increased or decreased continuously. SET key: Confirm the setting and go to the next item.

- After setting the year, month, day, hour and minute, press the SET key to return to the standby display.



7. Transmitting the Weighing Data

Transmitting data from a weighing instrument to a personal computer.

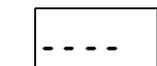
- Connect the AD-8527 to the USB port of a personal computer and connect the AD-8527 to a weighing instrument using the RS-232C cable.

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.



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

Then, 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 (PUSE)" to "Pause (1.6 seconds)".

- Repeat step 2 as necessary.
- Disconnect the weighing instrument from the AD-8527.
- Disconnect the personal computer from the AD-8527.

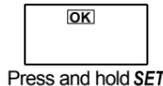
Continued to the reverse side

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

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



- 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.



When the CANCEL key is pressed, or after 10 seconds of non operation, the AD-8527 returns to the standby display.

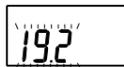
- The parameter of the selected function appears. The current setting has the ► mark at the lower right.



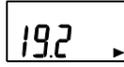
The flashing parameter can be changed.

- Using the following keys to change the parameter.

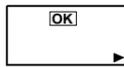
- (+) key: Display the parameters one by one
- CANCEL key: Go to the next function without changes.
- SET key: Confirm the setting and go to the next function.



After changes, a buzzer sounds, the parameter and the ► mark appear for 1 second, and then the next function appears.



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



8.2. Function List

Function	Description
Baud rate bPS	Parameter: 600, 1200, 2400*, 4800, 9600, 19200 bps 600 2400 192
Data bit, parity btPr	Parameter: 7bit-Even*, 7bit-Odd, 8bit-None 7-E 7-o 8-n
Number of data on a line Line	Parameter: 1*, 2, 3, 4, 5, 6, 7 1 2
Buzzer bEEP	Parameter: Sounds the buzzer*, Does not sound on off
Data transmission mode out	Parameter: Standard mode (All data)*, Interval mode ALL int When the interval mode is selected Interval time Parameter: 1*, 2, 5, 10, 15, 20, 30, 60, 120, 300, 600, 900, 1200, 1800, 3600 1 SEC 60 SEC
Data to transmit tYPE	Parameter: Weight values only*, All data (with a header and unit) nubr ALL
Date and time data Add	Parameter: Adds the date and time*, Does not add on off
Date format (Note1) ordr	Parameter: YMD*, MDY, DMY Ynd ndY dny

(Note 1) Set this function according to the setting of the personal computer used.

*: Factory setting
About the number of data on a line, interval mode, data to transmit, date and time data, refer to the following sections.

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 tabs.

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

Example below is when the data is transmitted to Excel

	A	B	C	D	E	F
1	6/10/2009	10:41:24	123.45			
2	6/10/2009	10:41:45	124.22			
3	6/10/2009	10:42:11	123.25			
4	6/10/2009	10:42:50	124.33			
5	6/10/2009	10:43:34	123.54			

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" 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 in a counting scale. When the number is set, <CR>'s up to the setting are converted into commas. Once the number of <CR>'s is 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>

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

	A	B	C	D	E	F
1	6/10/2009	10:41:24	123			
2	6/10/2009	10:41:24	56			
3	6/10/2009	10:41:24	3.102			

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

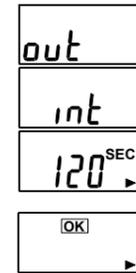
	A	B	C	D	E	F
1	6/10/2009	10:41:24	123	56	3.102	

ID Number of samples Weight

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

- Connect the AD-8527 to a personal computer using USB.
- Connect the AD-8527 to a weighing instrument using the RS-232C cable.
- Select the interval mode (int) for the data transmission mode (out) of the function setting and set the interval time (120 seconds in the example).

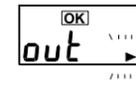


Press the CANCEL key to return to the standby display.

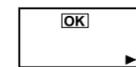
In the interval mode, the ► mark turns on at the lower right.

- Set the data output mode of the weighing instrument to the stream mode.
For details on the setting procedure, refer to the instruction manual of the weighing instrument.

- Press and hold the (+) key for 2 seconds or more. The AD-8527 starts to transmit the data at a set interval. "out" is displayed and the ► mark flashes while the data is transmitted.



- 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
Err4	The supplied voltage is low.	Confirm that the USB is connected correctly.
Err7	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.
Err9	Internal clock error such as low backup battery	Ask for repair.

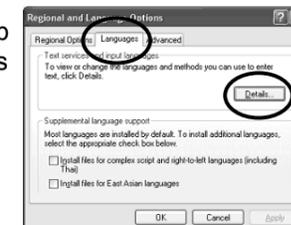
10.2. If the Data Fails to be Input into Excel Correctly

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

- Open "Control Panel", and then "Regional and Language Options".



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



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



11. Specifications

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

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